Title

The Relationship Between Homeownership and Health by Race/Ethnicity Since the Foreclosure Crisis: California Health Interview Survey 2011-2018.

Journal

Journal of General Internal Medicine, 38(12)

Authors

Gusoff, Geoffrey
Chen, Katherine
Moreno, Gerardo
et al.

Publication Date

2023-09-01

DOI

10.1007/s11606-023-08228-x

Peer reviewed

The Relationship Between Homeownership and Health by Race/Ethnicity Since the Foreclosure Crisis: California Health Interview Survey 2011–2018

Geoffrey Gusoff, MD, MBA, MS[1], Katherine Chen, MD, PhD[2], Gerardo Moreno, MD, MS[3], Joann G. Elmore, MD, MPH[2], and Frederick J. Zimmerman, PhD[4]

[1]National Clinician Scholars Program at UCLA (University of California, Los Angeles), 1100 Glendon Avenue, Suite 900, Los Angeles, CA 90024, USA; [2]Division of General Internal Medicine and Health Services Research, David Geffen School of Medicine at UCLA, Los Angeles, CA, USA; [3]Department of Family Medicine, David Geffen School of Medicine at UCLA, Los Angeles, CA, USA; [4]Department of Health Policy and Management, Fielding School of Public Health at UCLA, Los Angeles, CA, USA

ABSTRACT

BACKGROUND: US housing policy places a high priority on homeownership, providing large homeowner subsidies that are justified in part by homeownership's purported health benefits. However, studies conducted before, during, and immediately after the 2007–2010 foreclosure crisis found that while homeownership is associated with better health-related outcomes for White households, that association is weaker or non-existent for African-American and Latinx households. It is not known whether those associations persist in the period since the foreclosure crisis changed the US homeownership landscape.

OBJECTIVE: To examine the relationship between homeownership and health and whether that relationship differs by race/ethnicity in the period since the foreclosure crisis.

DESIGN: We conducted a cross-sectional analysis of 8 waves (2011–2018) of the California Health Interview Survey (n = 143,854, response rate 42.3 to 47.5%).

PARTICIPANTS: We included all US citizen respondents ages 18 and older.

MAIN MEASURES: The primary predictor variable was housing tenure (homeownership or renting). The primary outcomes were self-rated health, psychological distress, number of health conditions, and delays in receiving necessary medical care and/or medications.

KEY RESULTS: Compared to renting, homeownership is associated with lower rates of reporting fair or poor health (OR = 0.86, P < 0.001), fewer health conditions (incidence rate ratio = 0.95, P = 0.03), and fewer delays in receiving medical care (OR = 0.81, P < 0.001) and medication (OR = 0.78, P < 0.001) for the overall study population. Overall, race/ethnicity was not a significant moderator of these associations in the post-crisis period.

CONCLUSIONS: Homeownership has the potential to provide significant health-related benefits to minoritized communities, but this potential may be threatened by practices of racial exclusion and predatory inclusion. Further study is needed to elucidate health-promoting mechanisms within homeownership as well as potential harms of specific homeownership-promoting policies to develop healthier, more equitable housing policy.

Received November 9, 2022
Accepted May 5, 2023
Published online May 25, 2023

KEY WORDS: homeownership; social determinants of health; housing policy; self-rated health; delayed care

J Gen Intern Med 38(12):2718–25
DOI: 10.1007/s11606-023-08228-x

INTRODUCTION

The USA is in the midst of a housing crisis of historic proportions. One-third of households are cost-burdened, spending more than 30% of their income on housing. One-tenth of Americans are behind on housing payments.[1]

Due to the strong links between housing and health, this housing crisis is also a public health crisis. Housing unaffordability, instability, and poor quality have been consistently associated with negative health-related outcomes such as depression, substance use, and inadequate access to food and healthcare.[2–5]

In the midst of these crises, US housing policy continues to channel scarce federal resources into incentivizing homeownership, providing $30 billion per year in homeowner subsidies through mortgage interest deductions alone. These investments are justified in part by homeownership's purported health benefits.[6]

The most recent studies on homeownership and health focus on the period before, during, or immediately after the foreclosure crisis of 2007–2010, which drastically changed the US homeownership landscape. No studies have assessed the relationship between homeownership and health in the more recent, post-foreclosure crisis context when lending standards, underwriting diligence, and home prices all changed dramatically. Furthermore, several studies from that earlier period found that while homeownership was associated with positive health outcomes for the overall population, those associations were weaker or non-existent for Latinx and African-American households.[7–9] If that remains the case, current homeownership subsidies may exacerbate health inequities by channeling resources into a housing model that disproportionately benefits the health of White

households. An updated analysis of the relationship between homeownership and health, powered to detect differences by race/ethnicity, is needed to inform equitable, health-oriented housing policy.

California provides an informative context for such an analysis as longstanding features of California's housing market — particularly housing unaffordability — are increasingly common across the rest of the USA.[10] For decades, zoning restrictions and constitutional limitations on property taxes via the state's Proposition 13 have contributed to a chronic undersupply and unaffordability of housing in California.[11,12] In 2015, the average California home price was $437,000, more than double the national average of $179,000.[13] While California home prices continue to soar, housing markets across the USA are increasingly facing affordability crises analogous to California in the 2010s, with the average US home sale price hitting $472,400 in January 2023.[14] While homeownership rates are somewhat lower in California than nationally, racial/ethnic disparities in homeownership are comparable (African-American, Latinx, and White homeownership rates of 37%, 44%, and 63% in California in 2019 versus 42%, 47%, and 72% nationally), driven in both contexts by the racist policies and practices described below.[15–18]

Assessing the California context, this study proposes to answer two questions. First, what is the relationship between homeownership and health in the aftermath of the foreclosure crisis? Second, does this relationship vary by race/ethnicity?

Conceptual Framework

Figure 1 presents a conceptual framework for the relationship between homeownership and health that summarizes the current literature. Several studies have shown an overall positive association between homeownership and health, including better self-rated health[8] and mental health [19–21] and fewer health conditions.[22]

Pathway A represents a causal pathway from homeownership to improved health-related outcomes. Potential mechanisms for this pathway in the literature include increased housing stability,[23,24] wealth-building (home equity is the largest financial asset for most US households),[23,25–27] and improved housing quality.[23,28] Owning one's home is also associated with perceptions of greater safety in a given neighborhood,[29] which has also been linked to better health outcomes.[7] The positive association between homeownership and health persists even when controlling for sociodemographic factors, including age, sex, education, and income.[7,8]

Pathway B represents a reverse causal pathway between homeownership and health, as illness or disability can limit one's ability to become or remain a homeowner.[30]

Pathway C represents a potential moderating role played by race/ethnicity in the homeownership-health relationship. Several studies have found that White households have the strongest positive associations between homeownership and health, while positive associations for African-American and Latinx households are weaker or non-existent.[7–9]

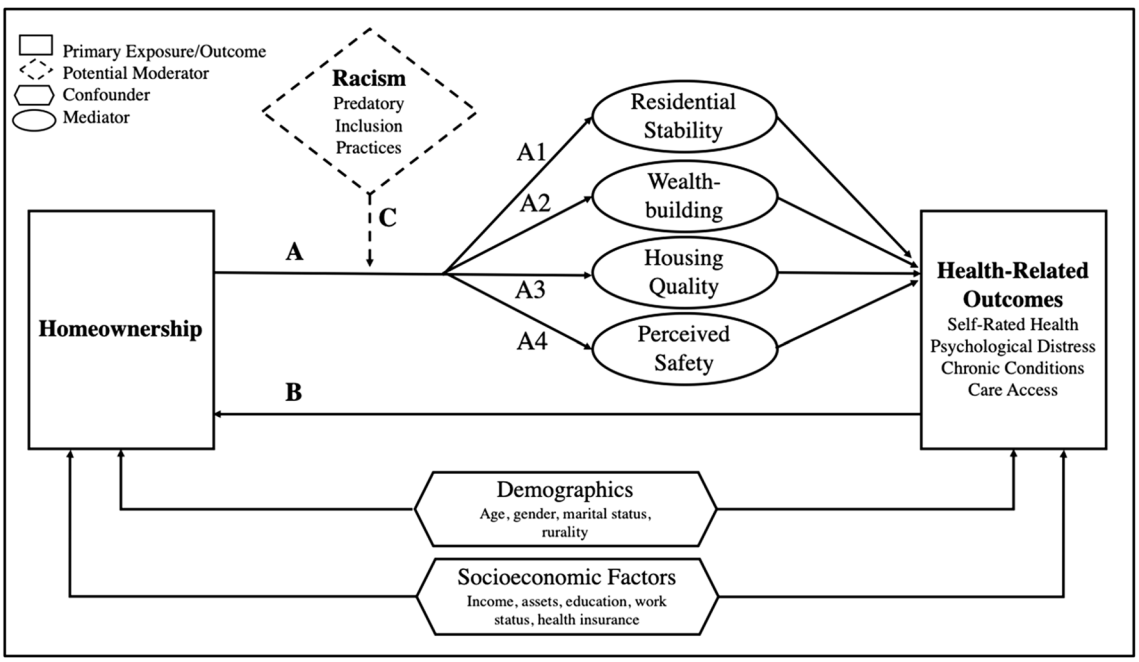

Figure 1 Conceptual model displaying associations between homeownership and health including a causal pathway through which homeownership impacts health (pathway A) mediated by residential stability, wealth-building, housing quality, and perceived safety (pathways A1–A4), a reverse causal pathway through which health impacts homeownership (pathway B), and a potential moderating role of racism (pathway C).

Because differential experiences across racial categories stem from historical processes of racialization and racism, our model defines the moderating factor as racism, rather than race/ethnicity, to emphasize that the relevant exposure refers to a social process and not an individual attribute.[31,32] US homeownership policy has been a major site for racialized oppression. As Keeanga-Yamahtta Taylor notes, racist homeownership policies have taken two forms: exclusion and "predatory inclusion" of non-White households.[33]

From the proliferation of racial covenants preventing deedholders from selling to non-White families, to the institutionalization of redlining practices drastically limiting mortgage access for non-White borrowers, US policy has systematically excluded non-White and particularly African-American households from homeownership.[34] Though the Civil Rights Act of 1968 made housing discrimination illegal, exclusionary realtor and lending practices toward African-American and Latinx families persisted.[33] These exclusionary practices have contributed to the persistent gap in US homeownership rates between African-American, Latinx, and White households described above.

This exclusion also set the stage for practices of "predatory inclusion", which promote African American and Latinx homeownership but on exploitative and disadvantageous terms. Predatory inclusion practices include disproportionate subprime lending to African American and Latinx borrowers,[18,33] discriminatory realtor practices (e.g., steering non-White families away from better-resourced communities),[33] and the devaluation of homes particularly in African-American-majority neighhoods.[35] These practices have contributed to African-American and Latinx homeowners having disproportionately less affordable mortgages, lower quality housing, and less home equity than White homeowners.[35,36] This created the conditions for exceptionally high African American and Latinx foreclosure rates during the foreclosure crisis.[37] By undermining housing stability, quality, and equity — the key mechanisms linking homeownership and health — predatory inclusion practices threaten to undermine or even eliminate the health-enhancing aspects of homeownership. This may explain the moderating role of racism in the homeownership-health relationship in previous studies.

METHODS

Data Source and Methods

Data were obtained from the 2011 to 2018 California Health Interview Survey (CHIS), the country's largest state-level health survey. Response rates ranged from 42.3 to 47.5%, comparable to other telephone surveys.[38] We excluded more recent CHIS data releases because changes in CHIS sampling methods limit the comparability of data before and after 2019.[39] To produce estimates representative of the California population and to account for the probability of selection and other factors, we applied person- and household-level weights in all analyses.[38]

Inclusion Criteria

The sample includes adult US citizens 18 years old or older who identified as renters or homeowners. Non-citizens were excluded from the sample given the relatively low number of non-citizen respondents and because non-citizens have significantly different access to both mortgage markets and healthcare services compared to citizens, which can impact the homeownership-health relationship. All racial/ethnic groups were included in the full sample, but subgroup comparisons were limited to the three largest racial/ethnic groups in the USA, for which systemic advantages and disadvantages in housing policy have been most thoroughly documented: African-American, Latinx, and White households.

Measures

Outcome Variables. We assessed three health outcomes: (1) self-reported health status — a dichotomous variable (0 = good/very good/excellent; 1 = poor/fair); (2) psychological distress — a dichotomous variable (0 = no, 1 = yes) derived from the Kessler 6, a validated measure of psychological distress in the last 30 days, where a total score of 13 or more is considered to represent significant psychological distress,[40] and (3) number of health conditions — a 5-level ordinal variable representing the number of chronic health conditions the respondent reported (including diabetes, hypertension, obesity, and cardiovascular disease). Given the role housing insecurity can play in interfering with needed medical care,[3] we follow Ortiz and Zimmerman[7] in also including two dichotomous "healthcare delay" outcomes (0 = no, 1 = yes): whether in the past 12 months the respondent (1) delayed necessary medical care or (2) delayed filling a prescription medication.

Primary Exposure. Self-reported housing tenure was our main exposure of interest, operationalized as a dichotomous variable (0 = rent, 1 = own).

Race/Ethnicity. We operationalized self-reported race/ethnicity as a 3-level variable (0 = White, 1 = Latinx, 2 = African-American).

Demographic and Socioeconomic Variables. We controlled for demographic and socioeconomic variables that can confound the relationship between homeownership and health, including age (continuous), gender (dichotomous: 0 = male, 1 = female), rural residence (dichotomous: 0 = no, 1 = yes), marital status (3-level variable, reference category = "never married"), education (5-level variable,

reference category = "no high school diploma"), employment (4-level variable, reference category = "unemployed and not looking for work"), household income as a percent of the federal poverty level (4-level variable, reference category = "0–99% of federal poverty level"), log of household income (continuous, added to provide more granular income data at the upper levels of the income range), and survey year.

Multivariable Regression Analyses

We obtained descriptive statistics stratified by race and housing tenure. We then performed three different sets of regressions. First, we assessed the overall relationship of homeownership to our selected health outcomes using logistic regression for dichotomous outcomes and zero-inflated Poisson regression for the number of health conditions variable, controlling for demographic and socioeconomic covariates. To assess whether race/ethnicity has continued to moderate these relationships during the study period, we then re-ran each model stratified by race/ethnicity to assess the relationship between homeownership and health *within* each racial/ethnic group. Finally, to assess whether the relationships between homeownership and health differed *between* racial/ethnic groups, we performed the following formal moderation analyses using the approach of Karaca-Mandic et al.:[41] after adding a term for the interaction between race/ethnicity and housing tenure (homeownership*race) to each model, we calculated the average marginal effect of homeownership (vs. renting) on each outcome for each racial/ethnic group and then calculated point estimates and confidence intervals for the difference in average marginal effects between each pair of racial/ethnic groups.

We used an alpha level of 0.05 for all analyses. All analyses were conducted with Stata version 17 (Stata Corp, College Station, TX).

RESULTS

Table 1 presents descriptive statistics for the entire sample, stratified by race/ethnicity and housing tenure. Whites had the highest rates of homeownership (72.3%) followed by Latinx (56.4%) and African-American (43.6%) respondents. Among homeowners, the Latinx subgroup was the youngest (average age 41.6) and had the highest percentage of homeowners with incomes below the federal poverty level (11.5%).

Table 2 summarizes the regression results for the overall sample and by race/ethnicity. For the overall sample, homeownership was significantly associated with better outcomes in four of the five health-related domains. Compared to renters, homeowners had 0.83-, 0.81-, and 0.78-fold lower odds of reporting poor or fair health, delaying needed medical care, or delaying needed prescriptions, respectively ($P < 0.001$). Homeowners also had a 5.3% lower incidence rate of health conditions than renters ($P = 0.028$). Homeowners reported lower rates of psychological distress, but this result was not statistically significant.

Stratified Regression Results

For each racial/ethnic group, homeownership was associated with significantly lower odds of reporting poor or fair health, with African Americans having the largest effect size (OR = 0.70 vs. 0.81 for Latinx respondents and 0.84 for Whites, $P = 0.017$, 0.003, and 0.002, respectively) (Table 2). Latinx respondents were the only group in which homeownership was associated with a significant reduction in odds of psychological distress (OR = 0.73, $P = 0.024$). IRRs for the number of health conditions were lower for Latinx and African-American homeowners compared to White homeowners, but none of these values reached statistical significance.

For healthcare delay outcomes, homeownership was associated with significantly decreased odds of delayed medical care for the White (OR = 0.77, $P < 0.001$) and Latinx groups (OR = 0.78, $P = 0.002$). For African Americans, homeownership was associated with increased odds of delayed medical care (OR = 1.22), but this finding did not reach statistical significance ($P = 0.270$). Finally, homeownership was associated with lower odds of delays in prescription medications for all groups, with African-American, Latinx, and White homeowners having similar odds (OR = 0.81, 0.78, and 0.78, respectively). All of these associations were statistically significant except for that for the African-American group ($P = 0.236$).

Formal Moderation Analysis

Results from the formal moderation analysis, included in Table 3, showed no significant differences in the average marginal effect of homeownership by race/ethnicity for four of the five health-related outcomes. For delayed medical care, the negative association with homeownership was absent or significantly dampened among African Americans and Latinx participants compared to White participants.

DISCUSSION

In the aftermath of the foreclosure crisis, homeownership continued to be associated with better self-rated health, fewer health conditions, less delayed medical care, and fewer delayed prescriptions. We did not find a significant association between homeownership and psychological distress for the overall study population, though for Latinx respondents homeownership was associated with lower rates of psychological distress.

In contrast to findings from the pre- and early-foreclosure crisis period,[7,8] we did not find evidence that the homeownership-health relationship is significantly moderated by race/ethnicity when controlling for socioeconomic and demographic factors. Instead, we find that the association between homeownership

Table 1 Demographic Features of the US Citizen Latinx, African-American, and White Population by Renting Versus Home Ownership: California Health Interview Survey, 2011–2018

	Latinx ($n = 26\,535$)		African-American ($n = 8071$)		Non-Latinx White ($n = 99\,261$)	
Variable (weighted)	**Rent % or mean**	**Own % or mean**	**Rent % or mean**	**Own % or mean**	**Rent % or mean**	**Own % or mean**
Rent or own home	43.6	56.4	56.4	43.6	27.7	72.3
Age, years	34.1	41.6	41.8	49.2	40.8	52.2
Female	52.2	50.3	53.3	54.2	48.5	51.9
Rural	0.9	0.9	0.2	0.3	4.1	4.2
Marital status						
Never married	42.7	29.2	44.6	23.7	33.4	14.2
Separate	28.1	15.9	36.2	28.1	35.4	20.0
Married	29.3	54.9	19.3	48.2	31.2	65.8
% of Federal poverty level						
< 99	30.0	11.5	28.9	6.9	15.4	3.8
100–199	29.6	22.1	23.9	12.6	19.4	8.5
200–299	16.4	18.0	19.0	12.7	16.7	10.8
300 +	24.0	48.5	28.3	67.8	48.5	76.9
Annual household income (thousands of dollars)	46.3	64.8	44.3	75.1	59.9	89.7
Education						
< High school diploma	21.6	20.5	11.4	4.6	5.7	4.0
High school diploma	47.7	44.9	51.7	41.1	38.2	36.1
Vocational degree or AA/AS	13.4	10.5	13.4	11.9	13.6	10.5
Bachelor's degree	13.5	16.5	17.2	25.1	28.9	28.2
Graduate degree	3.8	7.5	6.3	17.3	13.7	21.3
Insurance status						
Uninsured	17.7	12.6	10.9	6.8	11.6	4.7
Medicare & Medicaid	6.7	4.3	12.1	8.2	6.2	2.3
Medicare & others	1.9	8.7	4.5	15.9	8.8	25.5
Medicare only	0.7	1.8	1.1	2.5	2.3	2.8
Medicaid	35.2	13.4	33.6	8.0	17.5	4.2
Employment-based	11.2	20.1	11.6	20.2	16.6	20.6
Private	22.7	34.1	21.9	34.8	29.9	34.5
Other public	4.0	5.0	4.4	3.7	7.1	5.4
Work status						
Not looking for work	22.4	27.4	30.5	33.8	25.8	38.5
Looking for work	9.1	6.9	9.6	5.7	6.5	3.1
Employed part-time	10.4	9.0	8.0	7.3	8.7	8.5
Employed full-time	58.2	56.7	51.9	53.2	58.9	49.9
Perceived neighborhood safety*	3.18	3.39	3.10	3.40	3.31	3.52
Health-related outcomes						
Poor or fair self-rated health	27.0	21.5	27.2	16.4	17.3	12.5
Psychological distress	6.7	3.7	6.0	2.8	5.5	2.3
Number of health conditions†	0.71	0.76	0.96	1.01	0.63	0.74
Delayed medical care	16.2	11.4	14.9	13.4	22.3	13.2
Delayed prescription	13.2	10.0	15.7	11.7	15.5	10.1

AA/AS, Associate of Arts or Associate of Science degree

*Perceived neighborhood safety is assessed based on the question "Do you feel safe in your neighborhood" and ranked on a Likert scale from 1 (none of the time) to 4 (all of the time)

†Health conditions include diabetes, hypertension, obesity, and cardiovascular disease

and health outcomes is positive and generally similar for African-American, Latinx, and White communities.

One possible explanation for this change is a shift in the predominant form racism took within US homeownership. As Keeanga-Yamahtta Taylor notes, the relative role of predatory inclusion practices such as sub-prime lending peaked in the pre-foreclosure crisis period.[42] That gave way to a predominance of exclusionary practices in the post-crisis period, as disproportionately African-American and Latinx subprime mortgage holders faced high rates of foreclosure and African-American and Latinx borrowers faced greater barriers to obtaining new mortgages in comparison to their White counterparts.[43]

This relative shift from predatory inclusion to even greater exclusion for Latinx and African-American homeowners has important implications for the homeownership-health relationship. Predatory inclusion practices like sub-prime lending can be thought of as toxic exposures within homeownership that disproportionately impact African-American and Latinx households and diminish or eliminate any health benefits of homeownership.[44] This is consistent

Table 2 Summary of Regression Estimates of Homeownership on Health-Related Outcomes for the Overall US Citizen Population and by Race/Ethnicity: California Health Interview Survey, 2011–2018

Health-related outcome	Race/ethnicity	Number of respondents (*n*)	Homeowner vs. renter, OR or IRR*	*P* value
Poor/fair health	Overall	143,854	0.83	<0.001
	African-American	7519	0.70	0.02
	Latinx	24,510	0.81	<0.01
	White	94,492	0.84	<0.01
Psychological distress	Overall	123,590	0.89	0.16
	African-American	6471	0.89	0.69
	Latinx	21,373	0.73	0.02
	White	80,447	0.86	0.26
Number of health conditions	Overall	119,854	0.95	0.03
	African-American	6286	0.94	0.25
	Latinx	20,794	0.94	0.09
	White	78,117	0.98	0.35
Delayed medical care	Overall	143,854	0.81	<0.001
	African-American	7519	1.22	0.27
	Latinx	24,510	0.78	<0.01
	White	94,492	0.77	<0.001
Delayed prescription	Overall	143,854	0.78	<0.001
	African-American	7519	0.81	0.24
	Latinx	24,510	0.78	0.01
	White	94,492	0.78	<0.001

IRR, incidence rate ratio

*Each row represents the results of a different regression analysis for the particular outcome and racial/ethnic subgroup. All models controlled for age, gender, rural residence, marital status, education level, employment status, household income (log of total household income and income as a percentage of the federal poverty line), and year

with findings from pre- and early foreclosure crisis homeownership analyses.[7,8] As predatory inclusion shifted to exclusion through disproportionate foreclosures and greater barriers to borrowing for Latinx and African-American households, those who were able to remain homeowners were relatively better off. As a result, differences in the health benefits of homeownership between White homeowners and African-American and Latinx homeowners may have declined, as supported by this analysis. In other words, racism appears to moderate the homeownership-health relationship when predatory inclusion practices are especially prevalent but not when racial exclusion is more predominant, as in the more recent study period.

Limitations

This analysis has several limitations. The cross-sectional nature of the data limits our ability to make causal inferences regarding the relationship between homeownership and health. This is further complicated by the element of reverse causality (pathway B in Fig. 1), which could lead to an overestimation of the impact of homeownership on health.

In addition, the weighted CHIS sample may over-represent homeowners (estimating African-American, Latinx, and White homeownership rates of 43.6%, 56.4%, and 72.3% versus 34.0%, 42.8%, and 63.0% estimated by the American Community Survey), even accounting for the exclusion

Table 3 Racial/ethnic Differences in Average Marginal Effects of Homeownership on Health-Related Outcomes: California Health Interview Survey, 2011–2018

	African-American vs. Latinx		Latinx vs. White		African-American vs. White	
Health outcome	Difference in average marginal effect of homeownership vs. renting*	*P* value	Difference in average marginal effect of homeownership vs. renting*	*P* value	Difference in average marginal effect of homeownership vs. renting*	*P* value
Poor or fair health	−0.025	0.28	0.005	0.65	−0.020	0.35
Psychological distress	0.004	0.79	0.002	0.78	0.006	0.68
Number of health conditions	0.015	0.76	−0.013	0.63	0.001	0.98
Delayed medical care	0.037	0.05	0.025	0.01	0.062	<0.01
Delayed prescription	−0.004	0.81	0.015	0.15	0.011	0.54

*Estimates represent racial/ethnic differences in the average marginal effects of homeownership on each health outcome. For example, the "African-American vs. Latinx" category represents the average marginal effects of homeownership for African-Americans minus the average marginal effects of homeownership for Latinx respondents for each particular outcome

of non-citizens.[15] While this could impact the precision of certain estimates, it has less impact on mean differences between homeowners and renters, the focus of this study.

Although this analysis controlled for most of the salient confounders identified in the literature, uncontrolled confounding by non-housing wealth could positively bias our results. The absence of data on potential confounders such as home value and mortgage burden may also contribute to omitted variable bias.

The self-reported health outcomes studied also carry potential for bias. Retrospective assessments of psychological distress and delayed care may be subject to recall bias. In addition, the number of health conditions respondents report is influenced by their access to healthcare. This analysis suggests that homeowners have greater healthcare access, so our analyses may underestimate homeownership's negative association with number of health conditions.

Finally, the generalizability of the study findings to other states may be limited by unique aspects of California's housing market such as relatively high home prices, though increasingly relevant for other states, and relatively strong tenant protections,[45] which would bias our results toward the null. It is also unclear how these findings would apply to non-citizens, who may have different access to mortgage markets and other barriers to homeownership.

Lessons for Research and Practice

Our findings suggest that homeownership has the potential to positively impact health, including for African-American and Latinx communities. However, previous studies suggest that homeownership does not automatically confer better health. Predatory inclusion practices like subprime lending, which undermine housing affordability and stability, may eliminate the health benefits associated with homeownership.

At the clinic level, these findings can inform social histories and social needs screenings, in recognizing that homeownership is not necessarily health-promoting and identifying toxic exposures like unaffordable mortgages, especially for minoritized patients. At the policy-level, studies assessing the relative contributions of homeownership's health-promoting mechanisms (e.g., stability, perceived safety) and potential harms (e.g., increasing property values can undermine affordability for both homeowners and renters) are needed to inform alternative housing models and policies that incorporate the healthiest aspects of homeownership and mitigate its problematic aspects. In California, for example, Proposition 13 was intended to improve homeowner stability by limiting property tax increases, but this policy had the effect of limiting opportunities for younger people to enter the housing market, which has adversely affected low-income and minoritizedCalifornians.[46,47]

Promising alternatives include the community land trust model, in which a non-profit trust buys residential properties and sells the housing at an affordable rate in exchange for a commitment from homeowners to resell the house at an affordable price.[48] This model has been shown to consistently provide key health-promoting features, including permanent affordability, moderate wealth building, and remarkable stability.[49–51] It has also been shown to improve stability for local renters by preventing displacement.[52] Originally developed by African-American communities as an anti-displacement strategy during the civil rights movement, the community land trust model continues to be adopted by Latinx and African-American communities pursuing greater racial wealth and health equity.[53]

Community land trusts represent just one of many alternative, evidence-informed approaches that — alongside other policies addressing systemic racial disparities in wealth, health, and other areas — clinician-advocates can support to move beyond racial exclusion and predatory inclusion to more equitable, healthier housing policy.

Acknowledgements: *The authors would like to thank the UCLA Institute for Digital Research and Education for statistical programming assistance. Dr. Gusoff received support from the Los Angeles County Department of Health Services via the National Clinician Scholars Program at the University of California, Los Angeles. Dr. Chen reports support from the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) via the National Research Service Award T32 Primary Care Research Fellowship at the University of California, Los Angeles. The contents are those of the authors and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the US Government.*

Corresponding Author: *Geoffrey Gusoff, MD, MBA, MS; , National Clinician Scholars Program at UCLA (University of California, Los Angeles), 1100 Glendon Avenue, Suite 900, Los Angeles, CA, 90024, USA (e-mail: ggusoff@mednet.ucla.edu).*

Declarations:

Conflict of Interest: *The authors declare that they do not have a conflict of interest.*

REFERENCES

1. The State of the Nation's Housing 2022. 2022. https://www.jchs.harvard.edu/sites/default/files/reports/files/Harvard_JCHS_State_Nations_Housing_2022.pdf
2. **Taylor L.** Housing and Health: An Overview of the Literature. Health Policy Brief.Health Affairs. 2018 https://doi.org/10.1377/hpb20180313.396577
3. **Chen KL, Wisk LE, Nuckols TK, et al.** Unmet Medical Needs Among Adults Who Move due to Unaffordable Housing: California Health Interview Survey, 2011-2017. J Gen Intern Med.2021;36(8):2259-2266. https://doi.org/10.1007/s11606-020-06347-3
4. **Leifheit KM, Schwartz GL, Pollack CE, et al.** Building health equity through housing policies: critical reflections and future directions for research. J Epidemiol Community Health. 2022;76(8):759-63. https://doi.org/10.1136/jech-2021-216439
5. **Rolfe S, Garnham L, Godwin J, et al.** Housing as a social determinant of health and wellbeing: developing an empirically-informed realist theoretical framework. BMC Public Health. 2020;20(1):1138. https://doi.org/10.1186/s12889-020-09224-0
6. **Keightly MP.** An Economic Analysis of the Mortgage Interest Deduction. 2020. June 25, 2020.
7. **Ortiz SE, Zimmerman FJ.** Race/ethnicity and the relationship between homeownership and health. Am J Public Health. 2013;103(4):e122-9. https://doi.org/10.2105/ajph.2012.300944
8. **Finnigan R.** Racial and ethnic stratification in the relationship between homeownership and self-rated health. Soc Sci Med. 2014;115:72-81. https://doi.org/10.1016/j.socscimed.2014.06.019

9. **Boyas J, Shobe MA, Hannam HM.** Examining the association between race, ethnicity, and health status: do assets matter? J Evid Based Soc Work. 2009;6(4):401-20. https://doi.org/10.1080/15433710903126604
10. **Acolin A, Goodman LS, Wachter SM.** A Renter or Homeowner Nation? Cityscape. 2016;18(1):145-158.
11. **Quigley JM, Raphael S.** Regulation and the High Cost of Housing in California. American Economic Review. 2005;95(2):323-328. https://doi.org/10.1257/000282805774670293
12. **Fischel WA.** The Evolution of Homeownership. The University of Chicago Law Review. 2010;77(3):1503-1530.
13. **Taylor M.** California's High Housing Costs: Causes and Consequences. 2015. Accessed March 7, 2023. https://lao.ca.gov/reports/2015/finance/housing-costs/housing-costs.pdf
14. New Residential Sales January 2023. 2023. US Census Bureau: Monthly New Residential Sales. Accessed March 7, 2023. https://www.census.gov/construction/nrs/pdf/newressales.pdf
15. **Cuellar Mejia M, Johnson H, Lafortune J.** California's Housing Divide. May 13, 2022, Accessed March 7, 2023. https://www.ppic.org/blog/californias-housing-divide/
16. **Choi JH, Lee H.** Racial Homeownership Rates Vary across the Most Commonly Cited Datasets. When and Why Should You Use Different Ones? . *Urban Wire* blog. December 8, 2021, Accessed March 7, 2023. https://www.urban.org/urban-wire/racial-homeownership-rates-vary-across-most-commonly-cited-datasets-when-and-why-should-you-use-different-ones#:~:text=Using%202019%20ACS%20data%2C%20we,their%20homes%20than%20Black%20households.
17. **Cruz-Viesca MDL, Ong PM, Comandon A, et al.** Fifty Years After the Kerner Commission Report: Place, Housing, and Racial Wealth Inequality in Los Angeles. RSF:The Russell Sage Foundation Journal of the Social Sciences. 2018;4(6):160–184. https://doi.org/10.7758/rsf.2018.4.6.08
18. **Reid C, Laderman E.** The untold costs of subprime lending: Examining the links among higher-priced lending, foreclosures, and race in California. San Francisco: Federal Reserve Bank of San Francisco. 2009;
19 **Manturuk K, Riley S, Ratcliffe J.** Perception vs. reality: The relationship between low-income homeownership, perceived financial stress, and financial hardship. Soc Sci Res. 2012a;41(2):276-86. https://doi.org/10.1016/j.ssresearch.2011.11.006
20. **Courtin E, Dowd JB, Avendano M.** The Mental Health Benefits of Acquiring a Home in Older Age: A Fixed-Effects Analysis of Older US Adults. Am J Epidemiol. 2018;187(3):465-473. https://doi.org/10.1093/aje/kwx278
21. **Ettman CK, Cohen GH, Vivier PM, et al.** Savings, home ownership, and depression in low-income US adults. Soc Psychiatry Psychiatr Epidemiol. 2021;56(7):1211-1219. https://doi.org/10.1007/s00127-020-01973-y
22. **Boen C, Keister L, Aronson B.** Beyond Net Worth: Racial Differences in Wealth Portfolios and Black-White Health Inequality across the Life Course. J Health Soc Behav. 2020;61(2):153-169.https://doi.org/10.1177/0022146520924811
23 **Dietz RD, Haurin DR.** The social and private micro-level consequences of homeownership. Journal of Urban Economics. 2003;54(3):401-450. https://doi.org/10.1016/S0094-1190(03)00080-9
24. **Rohe WM, Stewart LS.** Homeownership and neighborhood stability. Housing Policy Debate. 1996;7(1):37-81. https://doi.org/10.1080/10511482.1996.9521213
25. **Boehm TP, Schlottmann A.** Wealth Accumulation and Homeownership: Evidence for Low-Income Households. Cityscape. 2008;10(2):225-256.
26. **Rohe WM, Van Zandt S, McCarthy G.** Home Ownership and Access to Opportunity. Housing Studies. 2002;17(1):51-61. https://doi.org/10.1080/02673030120105884
27. **Schuetz J.** Rethinking homeownership incentives to improve household financial security and shrink the racial wealth gap. Brookings Blueprints for American Renewal & Prosperity. December 9, 2020. Accessed March 8, 2023. https://www.brookings.edu/research/rethinking-homeownership-incentives-to-improve-household-financial-security-and-shrink-the-racial-wealth-gap/
28. **Friedman S, Rosenbaum E.** Nativity status and racial/ethnic differences in access to quality housing: Does homeownership bring greater parity? Housing Policy Debate. 2004;15(4):865-901. https://doi.org/10.1080/10511482.2004.9521525
29. **Lindblad MR, Manturuk KR, Quercia RG.** Sense of Community and Informal Social Control Among Lower Income Households: The Role of Homeownership and Collective Efficacy in Reducing Subjective Neighborhood Crime and Disorder. American Journal of Community Psychology. 2013;51(1-2):123-139. https://doi.org/10.1007/s10464-012-9507-9
30. **Houle JN, Keene DE.** Getting sick and falling behind: health and the risk of mortgage default and home foreclosure. J Epidemiol Community Health. 2015;69(4):382-7. https://doi.org/10.1136/jech-2014-204637
31. **Fields BJ, Fields KE.** Racecraft: The soul of inequality in American life. Verso Books; 2022.
32. **Phelan JC, Link BG.** Is Racism a Fundamental Cause of Inequalities in Health? Annual Review of Sociology. 2015;41(1):311-330. https://doi.org/10.1146/annurev-soc-073014-112305
33. **Taylor K-Y.** Race for profit: How banks and the real estate industry undermined black homeownership. UNC Press Books; 2019.
34. **Schwartz AF.** Housing policy in the United States. Routledge; 2021.
35. **Perry A, Rothwell J, Harshbarger D.** The Devaluation of Assets in Black Neighborhoods: The Case of Residential Property. Metropolitan Policy Program. November 2018. Accessed March 8, 2023.https://www.brookings.edu/wp-content/uploads/2018/11/2018.11_Brookings-Metro_Devaluation-Assets-Black-Neighborhoods_final.pdf
36. Racial Differences in Economic Security: Housing. Accessed March 6, 2023. https://home.treasury.gov/news/featured-stories/racial-differences-in-economic-security-housing
37. **Hall M, Crowder K, Spring A.** Neighborhood Foreclosures, Racial/Ethnic Transitions, and Residential Segregation. Am Sociol Rev. 2015;80(3):526-549. https://doi.org/10.1177/0003122415581334
38. Report 4 - Response Rates. 2019. California Health Interview Survey: CHIS 2017–2018 Methodology Series.
39. **Wells BMF, J.** CHIS 2019–2020 Redesign: Rationale, Empirical Evaluation, and Trends. 2021.
40. **Kessler RC, Andrews G, Colpe LJ, et al.** Short screening scales to monitor population prevalences and trends in non-specific psychological distress. Psychological medicine. 2002;32(6):959-976.
41. **Karaca-Mandic P, Norton EC, Dowd B.** Interaction terms in nonlinear models. Health services research. 2012;47(1pt1):255–274.
42. **Taylor K-Y.** How real estate segregated America. Dissent. 2018;65(4):23-32.
43. **Goodman LS, Zhu J, George T.** Where have all the loans gone? The impact of credit availability on mortgage volume. The Journal of Structured Finance. 2014;20(2):45-53.
44. **Downing J.** The health effects of the foreclosure crisis and unaffordable housing: A systematic review and explanation of evidence. Soc Sci Med. 2016;162:88-96. https://doi.org/10.1016/j.socscimed.2016.06.014
45 **Hatch ME.** Statutory Protection for Renters: Classification of State Landlord–Tenant Policy Approaches. Housing Policy Debate. 2017;27(1):98-119. https://doi.org/10.1080/10511482.2016.1155073
46. **Danforth E.** Proposition 13, Revisited Note. Stanford Law Review. 2021;73(2):511-554. 554.
47. **Hahnel C, Ramanathan A, Bassetto J, et al.** Unjust Legacy: How Proposition 13 Has Contributed to Intergenerational, Economic, and Racial Inequities in Schools and Communities. 2022.
48. **Hindman DJ, Pollack CE.** Community Land Trusts as a Means to Improve Health. JAMA Health Forum. 2020;1(2):e200149. https://doi.org/10.1001/jamahealthforum.2020.0149
49. **Thaden E.** Stable home ownership in a turbulent economy: Delinquencies and foreclosures remain low in community land trusts. Lincoln Institute of Land Policy. 2011.
50. **Acolin A, Ramiller A, Walter RJ, et al.** Transitioning to Homeownership: Asset Building for Low-and Moderate-Income Households. Housing Policy Debate. 2021;31(6):1032-1049.
51. **Rose J, Arikat L, Gusoff G, et al.** Mechanisms to Improve Health Through Community Land Trusts. J Urban Health. 2023;https://doi.org/10.1007/s11524-022-00706-7
52. **Choi M, Van Zandt S, Matarrita-Cascante D.** Can community land trusts slow gentrification? Journal of Urban Affairs. 2018;40(3):394-411. https://doi.org/10.1080/07352166.2017.1362318
53. **Hernandez AC, McNeill S, Tong Y.** Increasing community power and health through community land trusts: a report from five movement-driven california CLTs. December 2020. Accessed March 8, 2023.https://trustsouthla.org/wp-content/uploads/2021/02/Increasing-Community-Power-Thru-CLTs-REPORT-TCE-BHC-Dec2020.pdf