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Addressing the Social Determinants of Health: A Comprehensive Approach to Improving Health Outcomes in the United States

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ABSTRACT

This study examines the impact of social determinants of health (SDOH) on health outcomes in the United States, with a focus on housing stability, food security, employment, education, and healthcare access. Using a mixed-methods approach, quantitative data were collected from 500 adults across three states, while qualitative insights were gathered through 20 in-depth interviews with healthcare providers, community leaders, and individuals with lived experience of socioeconomic disadvantage. Results revealed strong associations between housing instability, food insecurity, and unemployment with poor self-reported health, as confirmed through regression analysis. Housing instability (OR = 2.45) and food insecurity (OR = 2.10) emerged as the strongest predictors of poor health. Qualitative findings highlighted barriers such as high healthcare costs, discrimination, and lack of safe housing, alongside facilitators including community-based programs, supportive policies, and strong social networks. Integration of quantitative and qualitative findings emphasized that housing and food security are critical determinants of health, while employment and education act as important moderators. The study concludes that addressing these core determinants through coordinated, cross-sector policies and community partnerships can substantially improve health equity and outcomes.

1. INTRODUCTION

The United States continues to face persistent health inequities, many of which are shaped more by social and economic environments than by access to medical care alone.[1] Social determinants of health (SDOH) such as income, education, employment, housing, and neighborhood conditions are recognized as major drivers of health outcomes and disparities.[2] These factors are considered "upstream" influences because they create the conditions that affect disease risk, health behaviors, and access to care across the life course.[3]Research has shown that socioeconomic status and related determinants account for wide gaps in morbidity and mortality across U.S. populations.[4] For example, Marmot demonstrated that gradients in health outcomes are strongly linked to income and social class, even in high-income countries.[5] Similarly, Braveman and Gottlieb highlighted how poverty, unstable housing, and limited educational opportunities contribute to chronic diseases such as diabetes and cardiovascular illness.[6] Evidence also suggests that inequities are reinforced by policies and systems that perpetuate structural disadvantage.[7]Racial and ethnic disparities are especially stark in the U.S. context .[8]

Williams and Mohammed argue that structural racism, residential segregation, and cumulative socioeconomic disadvantage explain significant differences in health outcomes between White and minority populations.[9] Furthermore, studies show that discriminatory practices in housing and employment increase stress, reduce access to resources, and elevate disease risk.[10]While there has been growing recognition of the importance of SDOH, large-scale implementation of interventions has been inconsistent.[11] Many U.S. health systems have initiated screening programs for food insecurity, housing instability, or transportation barriers, but these efforts often remain small-scale or fragmented.[12] Evaluations of such programs highlight challenges in sustainability and cross-sector collaboration, underscoring the need for integrated policies that address both medical and social needs.[13]Therefore, addressing social determinants of health requires coordinated action beyond the health sector.[14] Evidence from both global and U.S. contexts indicates that meaningful improvements in health outcomes occur when health systems collaborate with education, housing, and labor sectors.[15] This study seeks to contribute to this evidence by examining the relationships between housing stability, food security, employment, and access to care, while also incorporating perspectives from community stakeholders.

2. METHODOLOGY

This study employed a mixed-methods design to examine how social determinants of health (SDOH) influence health outcomes across diverse U.S. communities. Quantitative data were collected through a structured survey administered to 500 adult participants recruited from community health centers, social service organizations, and public health clinics across three U.S. states. The survey captured information on housing stability, food security, employment status, educational attainment, and access to healthcare, alongside self-reported physical and mental health outcomes. To complement these findings, qualitative data were gathered through 20 semi-structured interviews with healthcare providers, community leaders, and individuals with lived experience of socioeconomic disadvantage. This approach allowed for a deeper understanding of the barriers and facilitators in addressing SDOH. Data collection took place over six months (January–June 2025). Quantitative data were analyzed using descriptive and multivariate regression techniques to identify associations between social determinants and health outcomes. Qualitative interviews were audio-recorded, transcribed verbatim, and coded thematically to capture recurring patterns and narratives. Ethical approval was obtained from an institutional review board, and all participants provided informed consent. This combined design ensured a comprehensive, context-sensitive understanding of how social, economic, and environmental conditions affect health, while also highlighting actionable strategies for policy and practice.

3. RESULTS

3.1. Demographic Characteristics of Participants

The study included 500 survey participants across three U.S. states, representing diverse socioeconomic and demographic groups. A majority were between 25–44 years old, with balanced gender distribution and varied racial/ethnic representation.

Variable	Categories	Frequency (n)	Percentage (%)
Age	18–24 years	90	18.0
	25–44 years	230	46.0
	45–64 years	135	27.0
	65+ years	45	9.0
Gender	Male	250	50.0
	Female	245	49.0
	Other/Non-binary	5	1.0
Race/Ethnicity	White	220	44.0
	Black/African American	120	24.0
	Hispanic/Latino	100	20.0
	Other (Asian/Indigenous)	60	12.0
Education Level	Less than High School	85	17.0
	High School Graduate	190	38.0
	College/Technical Degree	165	33.0
	Graduate Degree	60	12.0

3.2. Social Determinants and Health Outcomes

Housing instability, food insecurity, and unemployment were strongly associated with poor self-reported health and higher rates of chronic disease.

Social Determinant	Category	Poor/Fair Health (%)	Good/Excellent Health (%)

Housing Stability	Stable Housing	22.0	78.0
	Unstable Housing	61.0	39.0
Food Security	Secure	24.0	76.0
	Insecure	68.0	32.0
Employment Status	Employed	28.0	72.0
	Unemployed	59.0	41.0
Access to Healthcare	Insured	26.0	74.0
	Uninsured	63.0	37.0

3.3. Qualitative Insights: Barriers and Facilitators

Interviews with providers, community leaders, and formerly disadvantaged individuals highlighted recurring barriers: cost of care, discrimination in healthcare, and lack of safe housing. Facilitators included community-based programs, strong social networks, and supportive policy interventions.

Theme	Representative Quotes (summarized)
Barriers to Health	"Without stable housing, it's impossible to focus on treatment."
	"Insurance gaps create fear of seeking medical care."
	"People face stigma because of race or low income."
Facilitators of Health	"Community food banks and support groups really help."
	"Having a case manager made it easier to navigate care."
	"Local policies supporting affordable housing matter."

3.4. Associations Between Social Determinants and Health Outcomes

Regression analysis indicated strong associations between SDOH and both physical and mental health outcomes. Housing instability and food insecurity were the strongest predictors of poor health.

Table 3.4. Logistic Regression Results: Predictors of Poor Self-Reported Health

Predictor Variable	Odds Ratio (OR)	95% Confidence Interval	p-value
Housing instability	2.45	1.75–3.42	<0.001
Food insecurity	2.10	1.52–2.91	<0.001
Unemployment	1.65	1.20–2.25	0.003
Low educational attainment	1.35	1.01–1.80	0.041
Lack of healthcare access	1.92	1.40–2.64	<0.001

Table 3.5. Emerging Themes from Qualitative Interviews (n = 20)

Theme	Description	Representative Quote
Barriers to healthcare access	High costs, lack of insurance, long wait times	"Even when I had insurance, finding a provider who accepted it was a challenge." – Community Member
Role of housing stability	Housing linked to both mental and physical health	"You can't think about going to the doctor when you don't know where you'll sleep tonight." – Social Worker
Employment and dignity	Stable jobs improve health and self-worth	"Having steady work gave me not just income, but confidence." – Formerly Unemployed Participant
Importance of community support	Local organizations fill critical gaps	"Our clinic does more than healthcare; we connect people to food and shelter." – Healthcare Provider

3.6. Integrated View of Quantitative and Qualitative Findings

Both strands of data highlighted that **housing and food security are the most critical social determinants shaping health outcomes**. Employment and education further moderated these effects, while healthcare access remained a persistent barrier across groups.

Table 3.6. Integration of Quantitative and Qualitative Results

Determinant	Quantitative Findings	Qualitative Insights
Housing Stability	Strong predictor of poor health (OR = 2.45)	Direct link between housing and mental health security
Food Security	Associated with higher odds of poor health (OR = 2.10)	Food insecurity described as daily stressor affecting families
Employment	Reduced odds of poor health (OR = 1.65 for unemployment)	Employment linked to dignity, routine, and stability
Education	Lower education associated with poor health	Education seen as long-term investment in health literacy
Healthcare Access	Lack of access increased odds of poor health (OR = 1.92)	Fragmented systems and affordability were major concerns

4. DISCUSSION

Your mixed-methods investigation compellingly echoes and extends existing literature on the impact of social determinants of health. Quantitatively, your finding that housing instability (OR 2.45) and food insecurity (OR 2.10) strongly predict poor self-reported health aligns closely with previous research: a multistate study found both housing and food insecurity significantly increased healthcare access hardship, with adjusted odds ratios of 2.49 and 2.48 respectively (1). Similarly, a large U.S. survey noted that individuals reporting housing insecurity were nearly twice as likely to report fair or poor health (2). Qualitatively, your interviews highlight barriers like cost, stigma, and access challenges. This is consistent with the patient perspective literature: one study found that while screening for social risks was broadly acceptable and seen as relevant, respondents stressed that screening must be conducted empathetically and with privacy protections (3). Taken together, your results corroborate established associations between housing and food security with health and importantly, emphasize the experiential barriers underlying those associations.

Furthermore, your qualitative themes enrich the quantitative data by illuminating lived experiences: unstable housing impairs a person's ability to seek care ("you can't think about going to the doctor when you don't know where you'll sleep tonight"); food insecurity is a daily stressor; employment enhances dignity; education supports health literacy; and fragmented healthcare systems hinder access. These resonate with patient-reported themes in prior studies (3), illustrating the convergence of structured data and personal narratives. The integration table (Table 5) solidifies this synergy: housing and food security emerge as core determinants, with employment, education, and healthcare access shaping or moderating impacts.

5.CONCLUSION

This study provides robust, convergent evidence that housing instability and food insecurity are among the most critical social determinants of health, exerting significant influence on both physical and mental wellbeing. The quantitative findings

supported by high odds ratios are reinforced and humanized through qualitative narratives that underscore the material and psychological impacts of insecurity and barriers to care. Employment and education further moderate these effects, while lack of healthcare access remains a persistent obstacle. Together, these insights suggest that addressing housing, food, and access barriers may substantially improve population health.

6. LIMITATIONS

Several limitations warrant consideration. First, the cross-sectional nature of the quantitative component limits causal inferences; while the strength of associations is clear, directionality remains uncertain. Second, selection bias is possible in the qualitative sample, as individuals willing to participate may differ systematically from those who did not. Third, generalizability may be constrained by the specific states, communities, and populations sampled; differences in system-level policies, local services, or demographic profiles across regions could alter findings. Finally, despite rigorous integration, one cannot fully account for all potential confounders—such as mental illness, social support beyond the measured constructs, or chronic stress—which may further influence outcomes.

7. RECOMMENDATIONS

Given these findings, several actionable strategies emerge. Health systems and policymakers should prioritize screening and support for housing and food insecurity, embedding trauma-informed, empathetic approaches that respect privacy and stigma concerns. Strengthening collaborations with community-based organizations such as food banks and housing assistance providers—can help bridge resource gaps effectively. Programs that support employment opportunities and educational initiatives may indirectly improve health by enhancing stability and health literacy. Future research should pursue longitudinal designs to establish causal pathways, broaden geographic and demographic sampling for greater generalizability, and explore interventions that address combined determinants (e.g., housing plus food). Finally, process evaluations of screening-to-referral pathways can elucidate barriers and effectiveness of social determinants interventions.

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