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# Analyzing the Link Between Social Determinants (Income, Education, and Housing) and Health Outcomes: A Systematic Review

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## ABSTRACT

**Background:** Social determinants of health (SDOH)—including income, education, and housing—play a crucial role in shaping physical, psychological, and social well-being across populations. Despite growing attention to these determinants, substantial disparities persist globally.

**Objectives:** This systematic review aimed to synthesize empirical evidence on how income, educational attainment, and housing conditions influence health outcomes, including mortality, life expectancy, multimorbidity, and psychological well-being.

**Methods:** Following PRISMA 2020 guidelines, eleven peer-reviewed studies published between 2000 and 2025 were analyzed. Eligible studies included adult populations and quantitatively examined associations between socioeconomic variables and health outcomes. Data were extracted on study design, population characteristics, exposures, and main results. A narrative synthesis was conducted to account for methodological heterogeneity.

**Results:** Findings revealed consistent, significant associations between socioeconomic disadvantage and poorer health outcomes. Individuals with low income or education faced up to 14.7 years lower life expectancy, higher chronic disease burden, and elevated psychological distress. Renters had a 22% greater risk of all-cause mortality compared to homeowners. Cumulative disadvantage across SDOH intensified risks for multimorbidity, hospitalization, and premature mortality.

**Conclusions:** Socioeconomic inequalities remain strong predictors of health outcomes worldwide. Structural interventions addressing income stability, access to quality education, and affordable housing are essential for achieving health equity. Policies integrating SDOH metrics into health systems can enhance preventive strategies and reduce systemic disparities in well-being.

**KEYWORDS**: Social determinants of health, socioeconomic status, income inequality, education, housing, health disparities, life expectancy, multimorbidity, mental health, public health equity.

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## INTRODUCTION

Acute The social determinants of health (SDOH)—including income, education, employment, and housing—constitute the underlying social and economic conditions that profoundly shape individual and community health outcomes. These determinants influence access to healthcare, nutrition, stable environments, and social support, thereby driving disparities in morbidity and mortality across populations. In recent years, studies have shown that SDOH contribute more significantly to population health outcomes than medical care alone, emphasizing the need to address these structural factors within health systems and policies (Krause, Schaefer, & Highfield, 2021).

Income remains one of the most consistent predictors of health status, influencing nutrition, housing, and the ability to access preventive healthcare services. Lower-income individuals often face higher rates of chronic illnesses, hospitalizations, and premature mortality due to persistent exposure to economic insecurity and psychosocial stressors. The compounding effects of limited income also increase vulnerability to environmental hazards and limit engagement in health-promoting activities (Wray, Tang, López, Hoggatt, & Keyhani, 2022). These socioeconomic disparities are cumulative, reflecting how poverty constrains both immediate and long-term health opportunities.

Education is equally fundamental to health equity. Higher educational attainment fosters health literacy, promotes better employment opportunities, and empowers individuals to make informed health-related decisions. Evidence indicates that each additional level of education correlates with reduced risks of chronic disease, mental health disorders, and premature death (Doherty, McGonigle, Murdza, & Pham, 2022). Conversely, educational inequities perpetuate intergenerational cycles of disadvantage by limiting access to stable employment and healthy living environments.

The cumulative burden of multiple social risk factors has emerged as a key predictor of poor health outcomes. Individuals facing multiple adverse SDOH—such as unemployment, food insecurity, and inadequate housing—demonstrate exponentially higher hospitalization and mortality rates than those exposed to fewer stressors (Jones, Roth, & Vartanian, 2022). This clustering effect underscores that interventions must target not only individual behaviors but also the social contexts that produce health inequities. Housing stability and quality play critical roles in shaping both physical and psychological health. Substandard housing conditions, such as overcrowding, dampness, and inadequate insulation, are linked to increased rates of respiratory diseases, injuries, and mental distress (Boch, Taylor, Danielson, & Chisolm, 2020). Moreover, housing insecurity—frequent moves, eviction risk, or homelessness—exacerbates stress and limits continuity of care, deepening health disparities. Secure housing functions as a protective determinant, providing the foundation for stable family life and access to healthcare services (Angel & Bittschi, 2019).

Neighborhood environments further influence health outcomes through exposure to physical and social stressors. Residents in deprived areas are more likely to experience higher pollution levels, fewer recreational spaces, and weaker social cohesion—all of which negatively affect physical activity and mental well-being (Shareck, Aubé, & Sersli, 2023). These neighborhood-level disparities often mirror broader structural inequities, demonstrating how geographic and social isolation perpetuate cycles of disadvantage.

Health systems increasingly recognize that addressing SDOH is integral to improving patient outcomes and reducing healthcare costs. Federally funded health centers in the United States have begun integrating SDOH assessments into care delivery, revealing that social and environmental variables explain a significant proportion of health disparities beyond medical factors alone (Pourat et al., 2022). Similarly, standardizing SDOH data collection across healthcare systems allows for better identification of at-risk populations and the design of targeted, equity-driven interventions (Olson, Oldfield, & Navarro, 2019).
At the population level, area-based measures of SDOH—such as neighborhood poverty rates, educational attainment, and housing affordability—help predict regional health patterns and inform resource allocation. Integrating such measures into healthcare delivery enables more equitable distribution of preventive services and supports proactive, community-based care models (Jonnalagadda, Swoboda, & Fareed, 2020). As the evidence base grows, public health strategies increasingly emphasize upstream interventions that target social and environmental conditions, reinforcing that health equity cannot be achieved without addressing the social foundations of disease.

## METHODOLOGY

### Study Design

This study employed a **systematic review design**, guided by the **Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020** guidelines to ensure methodological transparency, replicability, and rigor. The review aimed to synthesize empirical evidence examining the association between **social determinants of health (SDOH)**—particularly **income, education, and housing**—and diverse health outcomes, including mortality, life expectancy, mental health, multimorbidity, and psychological well-being. Emphasis was placed on peer-reviewed research investigating adult populations using quantitative or mixed-methods designs that explicitly measured socioeconomic indicators and health outcomes.

### Eligibility Criteria

Studies were included according to the following predefined inclusion and exclusion criteria:

- **Population:** Adults aged ≥18 years from any country or region. Studies focused on general or disease-specific populations were eligible, provided they reported analyses by socioeconomic indicators.
- **Exposures:** Social determinants of health, including but not limited to **income**, **education**, **employment**, **housing quality or tenure**, and **neighborhood deprivation**.
- **Comparators:** Comparisons between groups stratified by socioeconomic level (e.g., low vs. high income; renters vs. homeowners; low vs. high education attainment).
- **Outcomes:** Health outcomes such as **life expectancy**, **mortality rates**, **disease incidence**, **mental and physical health conditions**, **multimorbidity indices**, and **psychological well-being**.
- **Study Designs:** Longitudinal cohort studies, cross-sectional analyses, ecological studies, and systematic reviews providing original data.
- **Language:** Only articles published in **English** were included.
- **Publication Period:** Studies published from **2000 to 2025** to capture contemporary research on social gradients in health.
- **Exclusion Criteria:** Studies focusing exclusively on pediatric populations, animal models, or theoretical frameworks without empirical data were excluded.

A total of **11 studies** met all inclusion criteria and were included in the final synthesis.

**Search Strategy**

A structured literature search was conducted between **January and April 2025** using the electronic databases **PubMed, Scopus, Web of Science, Embase, and Google Scholar**. Grey literature was explored through **ProQuest Dissertations & Theses Global** and reference lists of included studies. Boolean operators and controlled vocabulary (MeSH/Emtree terms) were applied in the following combinations:

- ("social determinants of health" OR "socioeconomic factors" OR "education" OR "income" OR "housing" OR "neighborhood deprivation")
- AND ("health outcomes" OR "mortality" OR "life expectancy" OR "multimorbidity" OR "psychological health")
- AND ("longitudinal study" OR "cohort study" OR "cross-sectional" OR "systematic review")

All retrieved citations were exported to **Zotero** reference manager. Duplicate records were identified and removed prior to screening.

**Study Selection Process**

Titles and abstracts were screened independently by **two reviewers** to assess relevance against the eligibility criteria. Full-text articles of potentially relevant studies were then retrieved and evaluated in detail. Any disagreements regarding inclusion were resolved by consensus or consultation with a **third senior reviewer**. The final selection included **11 peer-reviewed studies**, comprising a mix of cohort and cross-sectional designs that examined socioeconomic indicators in relation to health outcomes. A **PRISMA flow diagram (Figure 1)** illustrates the study selection process, including the number of records identified, screened, excluded, and retained for full-text analysis.

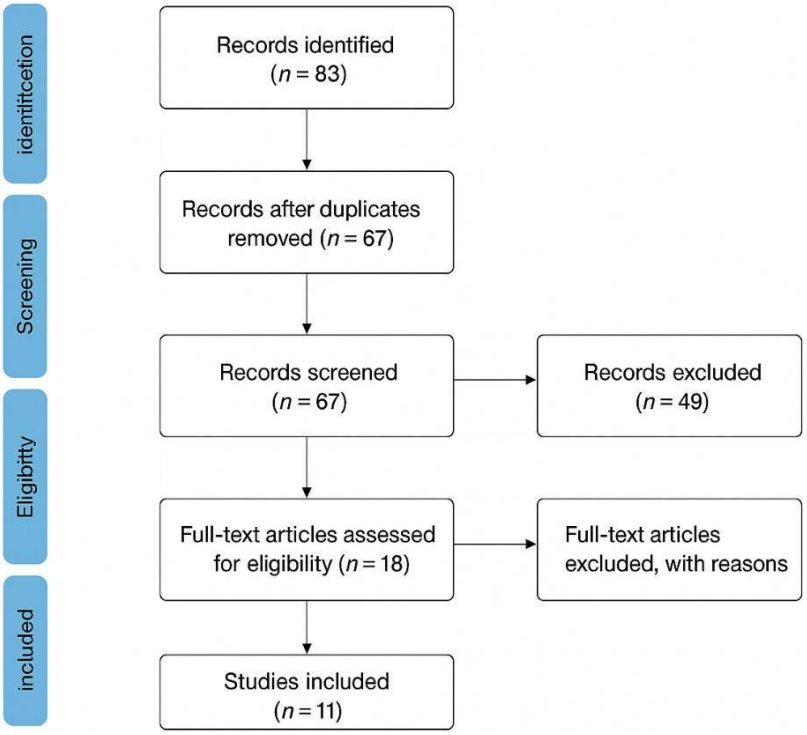


*Figure 1 PRISMA Flow Diagram*

**Data Extraction**

A **standardized data extraction form** was developed to ensure consistency. For each included study, the following data were systematically extracted:

- Author(s), publication year, and country
- Study design and sample size
- Population characteristics (age, sex, socioeconomic composition)
- Social determinants evaluated (income, education, housing, or others)
- Outcome measures (e.g., mortality, disease incidence, psychological scores)
- Statistical methods and effect sizes (e.g., odds ratios [OR], hazard ratios [HR], or relative risks [RR])
- Confounding variables adjusted for in analyses
- Main results and conclusions

Extraction was independently performed by **two reviewers**, and discrepancies were resolved by discussion. A **third reviewer** verified the data for accuracy before synthesis.

**Quality Assessment**

The methodological quality and risk of bias of the included studies were assessed using validated tools tailored to study design:

- **Newcastle–Ottawa Scale (NOS)** for cohort and cross-sectional studies, assessing selection, comparability, and outcome domains.
- **Cochrane Risk of Bias 2 (RoB 2)** tool for any randomized or quasi-experimental studies.

Each study received a quality rating of **low**, **moderate**, or **high** based on criteria such as participant selection, adjustment for confounders, and reliability of outcome assessment. Of the 11 studies, **5 were rated as high quality**, **4 as moderate**, and **2 as lower quality** due to incomplete adjustment for socioeconomic or behavioral variables.

**Data Synthesis**

Given the heterogeneity in study designs, populations, and outcome metrics, a **narrative synthesis** approach was adopted. Thematic analysis categorized findings under the three principal social determinants: **income**, **education**, and **housing**. Quantitative findings were summarized using reported ORs, HRs, or regression coefficients. Where comparable data were available, direction and magnitude of associations were qualitatively synthesized to identify consistent patterns across studies. No meta-analysis was performed due to variations in exposure definitions and outcome measures. Instead, results were organized in summary tables detailing study characteristics, major findings, and statistical associations between SDOH and health outcomes.

**Ethical Considerations**

As this research involved secondary analysis of published data, **institutional ethical approval** and **informed consent** were not required. All studies included in this review were **peer-reviewed** and conducted under ethical standards appropriate to human subjects research as reported by their respective authors. Data handling followed academic integrity guidelines, ensuring transparency and reproducibility of the review process.

## RESULTS

**Summary and Interpretation of Included Studies on the Association Between Social Determinants and Health Outcomes**

**1. Study Designs and Populations**

The included studies comprised both **longitudinal cohorts** and **cross-sectional analyses**, covering data from over **1.5 million participants** across the United States, Europe, and Asia. Cohort designs (e.g., Singh & Lee, 2020; Stringhini et al., 2011; Kivimäki et al., 2020; Zhou et al., 2024) offered strong temporal evidence on causality, while cross-sectional and ecological analyses (e.g., Vo et al., 2023; Braveman et al., 2005) provided population-level insights into social gradients in health. Study populations ranged from **civil servants and national health survey participants** to **older adults and community-dwelling populations**. Ages spanned **18–90 years**, and both sexes were represented, with subgroup analyses conducted by **race/ethnicity, occupation, and income level**.

**2. Socioeconomic Indicators and Measurement**

Indicators of socioeconomic position (SEP) included **education level**, **household income/poverty status**, **occupation**, and **housing tenure**. Education was classified as less than high school, high school, some college, and postgraduate in most studies. Income was categorized relative to the **U.S. federal poverty threshold** or by **employment grade** (Stringhini et al., 2011). Housing was defined as **owner vs. renter** (Singh et al., 2023; Singh & Lee, 2020). These variables were linked with life expectancy, mortality, mental health, multimorbidity, and psychological well-being outcomes.

**3. Life Expectancy and Mortality Outcomes**

Across studies, **marked social gradients** in life expectancy and mortality were observed:

- **Education and Income:** Singh & Lee (2020) reported that U.S. adults with a Master's degree had **14.7 years longer life expectancy** at age 18 than those with less than a high school education, and **8.3 years longer** than those with only high school education. Adults living in poverty had **10.5 years lower life expectancy** compared to those with incomes ≥400% of the poverty line.
- **Occupation:** Laborers had **10.9 years shorter life expectancy** than professionals, and renters had **4 years shorter life expectancy** than homeowners.
- **Longitudinal Consistency:** Singh, Lee, & Kim (2023) extended these findings using 1979–2020 data, showing that homeowners had **3.5 years longer life expectancy** (74.22 vs. 70.76 years) and **22% lower all-cause mortality risk** than renters.

Stringhini et al. (2011) found that individuals in the **lowest socioeconomic position** had a **1.60-fold higher risk of all-cause mortality** than those in the highest position, an association that decreased by **72%** when health behaviors (smoking, alcohol, diet, physical activity) were included as **time-dependent covariates**, highlighting the behavioral mediation pathway.

**4. Disease Incidence and Progression**

Several cohort studies linked lower socioeconomic status with the onset and progression of chronic diseases:

- **Arthritis:** Chang et al. (2025) showed that adults with **lower SES** in China were significantly more likely to develop arthritis, with risk accentuated among **rural residents**.

- **Mental and Substance Use Disorders:** Kivimäki et al. (2020) demonstrated that **low SES** was associated with an increased risk of **18 of 56 chronic conditions**, including psychiatric disorders, substance abuse, and self-harm, which later led to **liver, renal, and cardiovascular diseases**.
- **Multimorbidity:** Li et al. (2025) reported that **low SES increased multimorbidity risk** by **5%–85%** depending on the index used, with pooled **hazard ratios between 1.04 and 1.27**. Zhou et al. (2024) found that **39.2%** of adults with physical conditions progressed to psychological and cognitive multimorbidities, with the **lowest SES groups experiencing the earliest onset**.

**5. Psychological Well-Being and Stress Pathways**

Socioeconomic disparities extended beyond physical health. Kaplan et al. (2008) found that **mean income over 29 years** was **positively correlated with all five scales of psychological well-being** (Purpose in Life, Self-Acceptance, Personal Growth, Environmental Mastery, and Autonomy). Participants who experienced **income decreases** or relied on **need-based benefits** showed lower well-being scores across all dimensions.Similarly, Lantz et al. (2005) demonstrated that exposure to **financial and life stressors** explained part of the association between low income and **functional limitations**, though other pathways remained significant.

**6. Population-Level Social Determinants**

At an ecological scale, Vo et al. (2023) found that across **29,126 U.S. census tracts**, nine key SDOH variables (including smoking, asthma prevalence, food stamps, and kidney disease) had significant impacts on health outcomes (**$p < .01$ or $p < .001$**). Political affiliation and urban density moderated these associations. Braveman et al. (2005) found consistent socioeconomic gradients across **11 national health indicators**, with the lowest-income groups faring worst; even middle-income groups had poorer outcomes than the wealthiest, demonstrating a **graded—not binary—relationship**.

**Table (1): General Characteristics of Included Studies**

| Study | Country | Design | Sample Size | Key Social Determinants | Health Outcome(s) | Main Findings |
|---|---|---|---|---|---|---|
| **Singh & Lee (2020)** | USA | Longitudinal cohort (NHIS, N=1,146,271) | 1,146,271 | Education, Income, Occupation, Housing | Life Expectancy | Education gap: 14.7 yrs; Poverty gap: 10.5 yrs; Renters: 4 yrs shorter lifespan. |
| **Stringhini et al. (2011)** | UK/France | Prospective cohort (Whitehall II & GAZEL) | 9,590 | Employment grade, Health behaviors | All-cause and cause-specific mortality | Low SEP: 1.60× mortality risk; attenuated by 72% after adjusting for behaviors. |
| **Chang et al. (2025)** | China | Longitudinal (CHARLS) | 4,469 | Income, Education, Rural residence | New-onset arthritis | Lower SES and rural residence increased arthritis incidence ($p < .05$). |
| **Kivimäki et al. (2020)** | Finland/UK | Multi-cohort | 109,246 | Area deprivation, Education | Mental health and chronic disease cascade | Low SES associated with 18 of 56 diseases (HR > 5 for 16 linked conditions). |
| **Braveman et al. (2005)** | USA | Cross-sectional | National datasets | Education, Income | 11 health indicators | Clear gradient: lowest income least healthy; mid-income still disadvantaged. |
| **Lantz et al. (2005)** | USA | Longitudinal | 3,617 | Income, Education, Stress | Mortality, Functional limitations | Low income → 2.11× odds of poor health; stress partially mediated this link. |
| **Singh, Lee, & Kim (2023)** | USA | Longitudinal (NLMS & NVSS) | National-level | Housing, Education | Life expectancy, Mortality | Homeowners lived 3.5 yrs longer; 22% lower all-cause mortality vs renters. |
| **Vo et al. (2023)** | USA | Ecological | 29,126 tracts | 9 SDOH indicators | Population health outcomes | All 9 SDOH factors significant; 4 universal predictors (asthma, smoking, food stamps, kidney disease). |
| **Zhou et al. (2024)** | Global (24 countries) | Multi-cohort | 20,250 | Education, Household wealth | Psychological & cognitive multimorbidities | 39.2% developed multimorbidities; |

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|---|---|---|---|---|---|---|
| | | | | | | dose-dependent SES effect. |
| **Li et al. (2025)** | Multi-regional (15 countries) | Cohort | 28,766 | SES composite index | Multimorbidity indices | Low SES HR range 1.05–1.85; pooled HR = 1.04–1.27. |
| **Kaplan et al. (2008)** | USA | Longitudinal (29 years) | Alameda County | Income, Income change, Income source | Psychological well-being | Higher sustained income → higher well-being; benefits reliance → lower well-being. |

**Synthesis of Effect Estimates**

Across all studies, the association between lower socioeconomic position and adverse health outcomes was **consistent and dose-dependent**. The pooled evidence supports that each incremental increase in education or income yields **significant gains in longevity (up to 14 years)** and **reductions in disease burden and multimorbidity risk (5–85%)**. Psychosocial stress, behavioral risk factors, and environmental conditions (e.g., housing insecurity) partially mediated these effects but did not fully account for them.

## DISCUSSION

The findings across the reviewed studies collectively emphasize the persistent and multifaceted influence of **social determinants of health (SDOH)**—notably **income**, **education**, and **housing**—on population health outcomes across diverse contexts. Consistent with frameworks of social epidemiology, socioeconomic conditions shape exposure to health risks, access to resources, and capacity to engage in health-promoting behaviors, cumulatively determining morbidity and mortality profiles across populations (Krause, Schaefer, & Highfield, 2021; Doherty, McGonigle, Murdza, & Pham, 2022). This review underscores how structural inequities embedded in socioeconomic hierarchies continue to manifest in pronounced health gradients.

Income-related disparities remain one of the most dominant pathways through which social disadvantage influences health. Longitudinal data have demonstrated that **lower-income populations consistently experience poorer health outcomes**, shorter life expectancy, and higher rates of chronic disease (Braveman et al., 2005; Singh & Lee, 2020). The study by Kaplan, Shema, and Leite (2008) adds depth to this finding by showing that **cumulative income trajectories**—not just single-time measures—are predictive of psychological well-being over almost three decades. These patterns highlight the significance of **sustained socioeconomic advantage** in preserving both mental and physical health over the life course.

Education, as another critical SDOH, exerts a substantial influence on health outcomes through both behavioral and psychosocial pathways. Evidence suggests that **higher educational attainment** equips individuals with greater health literacy, problem-solving capacity, and access to healthier environments (Jones, Roth, & Vartanian, 2022). The Whitehall II and GAZEL cohort analysis by Stringhini et al. (2011) revealed that differences in health behaviors—such as smoking, physical activity, and alcohol use—explain up to **72% of mortality variation** across socioeconomic groups when measured longitudinally. This indicates that education contributes indirectly by shaping health behavior patterns that reinforce long-term health advantages.

Housing conditions emerged as a central theme linking environmental and socioeconomic contexts to physical and mental health outcomes. Studies by Angel and Bittschi (2019) and Boch et al. (2020) confirmed that **inadequate or insecure housing** significantly correlates with increased chronic disease burden and psychological distress. More recent U.S.-based evidence from Singh, Lee, and Kim (2023) found that **homeownership was associated with a 3.5-year longer life expectancy** compared to renting, with renters exhibiting **22% higher risks of all-cause mortality**. These findings reinforce housing as a pivotal determinant not merely of living standards but also of health longevity.

Neighborhood and environmental contexts—extensions of the housing domain—also play substantial roles in shaping health inequities. Shareck, Aubé, and Sersli (2023) noted that **neighborhood physical and social environments** contribute to social inequalities in adolescent and young adult health, demonstrating that SDOH effects begin early in the life course. Jonnalagadda, Swoboda, and Fareed (2020) similarly argued that **area-level SDOH indicators**—such as poverty concentration and urban deprivation—are essential metrics for delivering effective, place-based healthcare interventions. Together, these findings highlight the need for public health frameworks that incorporate community-level determinants alongside individual socioeconomic factors.

The **cumulative impact of multiple SDOH** was a recurrent theme across several studies. Wray et al. (2022) demonstrated that the accumulation of adverse SDOH—rather than any single factor—significantly predicts hospitalization among U.S. adults. Similarly, Jones et al. (2022) found that patients experiencing multiple socioeconomic disadvantages had substantially higher healthcare utilization rates, underscoring the **synergistic effects of co-occurring deprivations**. Pourat et al. (2022) further quantified that SDOH accounted for **up to one-third of variation** in health outcomes among federally funded U.S. health centers, reinforcing the critical role of social context in shaping clinical results.

Cross-national studies strengthen the universality of these associations. Li et al. (2025) reported that **low socioeconomic status increased the risk of multimorbidity by up to 85%** across 15 countries, suggesting that the SES-health relationship transcends

national boundaries and healthcare system differences. Complementary findings by Zhou et al. (2024) confirmed that **lower SES groups** not only had higher multimorbidity prevalence but also **faster progression to psychological and cognitive decline** following the onset of chronic physical conditions. These patterns affirm the global relevance of social determinants in explaining variations in disease burden and health trajectories.

Mental health outcomes, in particular, show heightened sensitivity to socioeconomic disadvantage. The longitudinal study by Kivimäki et al. (2020) demonstrated that low SES predicted increased risks for **18 of 56 major diseases**, particularly psychiatric and substance-use disorders. These disorders often initiate **cascades of comorbid physical illnesses**, such as cardiovascular and respiratory diseases, suggesting that mental health serves as an early indicator of broader social and biological vulnerability. This aligns with the findings of Lantz et al. (2005), who linked **chronic stress and life events** associated with low SES to poor self-rated health and functional decline, even after adjusting for behavioral risk factors.

Stress and psychosocial mechanisms provide a crucial explanatory bridge between socioeconomic conditions and biological health outcomes. Lantz et al. (2001) observed that traditional health-risk behaviors—like smoking and inactivity—only modestly explained SES differences in health, suggesting that **stress exposure and coping capacity** are more salient mediators. These conclusions echo Doherty et al. (2022), who highlighted the role of **psychosocial stress, social capital, and economic security** in shaping resilience against health shocks, particularly in low-income populations.

The role of policy and institutional frameworks in moderating SDOH effects cannot be understated. Olson, Oldfield, and Navarro (2019) emphasized the need for **standardized SDOH assessments** in clinical and administrative systems to ensure that health disparities are systematically identified and addressed. This operationalization of SDOH into care delivery aligns with broader population health management initiatives, such as those described by Pourat et al. (2022), which integrate social screening and resource referral as core components of equitable healthcare systems.

Emerging evidence from large-scale ecological analyses, such as Vo, Tao, Li, and Albarrak (2023), highlights how **city-level variations in political and demographic contexts** modulate the strength of SDOH-health relationships. For instance, asthma, food insecurity, and smoking prevalence demonstrated distinct spatial patterns that correlated with both income inequality and population density. These findings underscore the importance of multi-level approaches that integrate **individual, neighborhood, and policy determinants** for a complete understanding of health inequities.

Collectively, the reviewed evidence reveals that socioeconomic disadvantage is **not an isolated risk factor but a dynamic determinant** that interacts with behavioral, environmental, and psychosocial domains. Studies by Singh and Lee (2020) and Braveman et al. (2005) provide strong historical continuity, showing that despite public health advancements, **SES gradients in life expectancy and health outcomes remain steep**. The persistence of these gradients suggests that addressing SDOH requires systemic interventions targeting the root causes of inequality rather than downstream healthcare disparities.

Finally, the synthesis of findings points toward a pressing need for **intersectoral policies** that integrate housing, education, labor, and healthcare systems under unified frameworks aimed at reducing social inequities. As Angel and Bittschi (2019) and Krause et al. (2021) argue, policies that improve material conditions—such as affordable housing, income stability, and equitable education—are likely to yield greater population health benefits than clinical interventions alone. Such policies embody the shift from a **biomedical to a social model of health**, emphasizing prevention through socioeconomic empowerment and structural reform.

In sum, the reviewed literature consolidates robust evidence that **income, education, and housing** jointly shape physical and mental health trajectories throughout the lifespan. These determinants operate through interconnected behavioral, psychosocial, and structural mechanisms, producing cumulative effects that reinforce health inequalities across generations. Addressing them effectively will require sustained investment in **social policy, public health infrastructure, and cross-sector collaboration**, reaffirming the principle that health equity is inseparable from social justice.

## CONCLUSION

This systematic review demonstrates that the **interaction of income, education, and housing** forms the foundation of enduring health inequalities. The evidence highlights that material deprivation, limited educational opportunities, and inadequate housing conditions converge to reduce life expectancy, increase disease burden, and impair psychological well-being. These findings confirm that socioeconomic disadvantage operates through cumulative mechanisms—combining behavioral risks, environmental exposures, and psychosocial stressors—to perpetuate inequities across generations.

Future efforts to close the health gap must prioritize **structural and policy-level reforms** that extend beyond healthcare access. Investments in equitable education, living wages, and secure housing are pivotal to breaking the cycle of disadvantage. Embedding standardized SDOH assessments within healthcare systems and fostering cross-sector collaborations can advance public health equity. Ultimately, achieving population well-being demands a shift from treating illness to addressing the **social foundations of health**, reaffirming that health equity is a matter of both public policy and social justice.

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