

The Social Determinants–Behavior Connection: Explaining How Inequality Becomes Health Behavior, Disease Experience, and Clinical Trajectory

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Abstract

Health behavior is often positioned between social disadvantage and disease as though it were an autonomous individual response to information, preference, or motivation. That representation is analytically incomplete. Economic insecurity, neighborhood opportunity, social relationships, institutional conditions, psychological load, and access to healthcare can shape which actions are feasible, sustainable, socially supported, or repeatedly disrupted. This article develops a non-empirical conceptual account of how social determinants may become behavior, disease experience, and clinical trajectory without reducing structural inequality to personal choice. It distinguishes structural exposure from psychological mediation, opportunity from realized behavior, behavioral adaptation from health benefit, healthcare availability from usable access, and disease burden from self-management capacity. The proposed account treats behavioral patterns as context-dependent responses emerging within material, relational, environmental, and institutional constraints. It further incorporates reciprocal processes whereby illness can intensify financial and practical disadvantage, thereby altering later behavioral options. Rather than proposing a deterministic chain, the article develops a bounded determinants–behavior–trajectory model in which multiple transitions can be amplified, interrupted, compensated for, or rendered indeterminate by social and healthcare conditions. This framing identifies intervention leverage points while preserving uncertainty about mediation, causality, population transferability, and policy effectiveness.

Keywords: Social determinants of health, Health behavior, Socioeconomic inequality, Self-management, Neighborhood opportunity, Psychological mediation

Introduction

Health behaviors are frequently invoked to explain why socially disadvantaged populations experience greater disease burden. Yet treating smoking, diet, physical activity, preventive care, or treatment participation as isolated choices risks moving explanation downstream from the conditions that make particular choices easier, harder, safer, affordable, socially reinforced, or

repeatedly disrupted. Qualitative evidence from socioeconomically diverse adults indicates that health practices are embedded in resources, social connections, perceived control, illness burden, and patterned “health lifestyles,” rather than arising solely from health knowledge or preference [1]. A systematic review similarly found that health behaviors contribute to socioeconomic inequalities in health, but the magnitude of that contribution varies widely across behaviors, populations, outcomes, and analytical approaches [2]. Socioeconomic position also remains associated with premature mortality after conventional behavioral and metabolic risk factors are considered, indicating that behavior cannot reasonably stand in for the entirety of social disadvantage [3].

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The central problem is therefore not whether behavior matters. It is how inequality becomes behavior and how behavioral consequences subsequently interact with illness, healthcare participation, and cumulative clinical trajectories. This article proposes that social determinants should be interpreted as conditions that structure feasible action, not merely as distal demographic predictors. The resulting framework separates four analytical questions: what opportunities and constraints are socially produced; how those conditions are psychologically and relationally processed; which behaviors become feasible or adaptive within them; and how repeated behavioral and healthcare transitions accumulate into disease experience and clinical trajectory. The framework is explicitly proposed rather than empirically validated, and its pathways should be understood as conditional, potentially reciprocal, and dependent on population, illness, culture, healthcare system, and measurement.

Why social determinants require mechanistic explanation

A social gradient can be statistically clear while its mechanism remains poorly specified. Material deprivation, psychosocial strain, behavior, relational conditions, and healthcare access are correlated, but correlation among pathways does not make them analytically interchangeable. A systematic review examining socioeconomic inequalities in self-rated health found that material, psychosocial, and behavioral factors can each contribute, with material explanations often retaining substantial importance even when other pathways are considered [4]. The implication is not that one pathway is universally dominant, but that a mechanistic account must preserve their distinctions.

Three errors follow when this separation is ignored. First, structural exposure can be misclassified as individual behavior—for example, food insecurity can be reframed as poor dietary choice without representing affordability or local availability. Second, mediators can be confused with outcomes; psychological distress may be both a consequence of hardship and a factor affecting later behavior, rather than simply another marker of disadvantage. Third, observed behavior can be overinterpreted as evidence of preference or motivation even when feasible alternatives are severely constrained. The proposed framework therefore treats social determinants as constraint-generating and opportunity-generating conditions whose effects may be transmitted through several nonexclusive routes. Some conditions

can affect health without a behavioral mediator. Others may alter the probability, cost, timing, sustainability, or social meaning of a behavior. Still others can modify whether healthcare engagement produces a clinically meaningful result. Mechanistic explanation consequently requires transitions between levels rather than a single socioeconomic-status-to-behavior arrow.

Economic and material conditions

Economic conditions are often represented by income, but lived material constraint is broader. A systematic review of financial strain measures found substantial heterogeneity in how difficulty meeting expenses, insufficient resources, and related constructs are operationalized, cautioning against treating financial strain as synonymous with a single income category [5]. This distinction matters because two households with similar nominal income may have very different obligations, debt, housing costs, illness expenditure, transport demands, caregiving responsibilities, or buffers against an unexpected expense.

During Great Britain's cost-of-living crisis, greater financial hardship was associated with greater psychological distress, illustrating how economic pressure may become psychologically salient under conditions of acute scarcity [6]. Such evidence does not establish that financial hardship mechanically causes a particular mental state in every exposed person. It does, however, support treating scarcity and distress as analytically connected rather than independent covariates.

The temporal direction can also reverse. Longitudinal European evidence supports bidirectional associations between financial circumstances and health, suggesting that poor health may subsequently erode economic resources while financial difficulty can precede poorer health [7]. The proposed model therefore rejects a one-way sequence in which inequality acts once and behavior merely transmits its effect. Economic constraint can alter available behavior, illness can increase costs or reduce earning capacity, and those changes can further narrow later options. This feedback becomes especially important for chronic disease, where daily self-management repeatedly consumes time, money, mobility, and attention.

Neighborhood and environmental opportunity

Neighborhoods influence health behavior not simply by containing or lacking amenities, but by shaping whether

those amenities constitute usable opportunities. Among adolescents, built-environment features were not uniformly associated with physical activity, and associations varied across environmental features and social subgroups [8]. Likewise, living in a neighborhood designed around short-distance access to daily destinations did not consistently translate into healthier diet, greater physical activity, better self-rated health, or narrower socioeconomic differences [9]. These findings challenge a simple exposure assumption in which proximity automatically becomes behavior.

The environmental package surrounding an opportunity also matters. Highly walkable neighborhoods can simultaneously expose residents to particulate pollution, traffic noise, extreme heat, pedestrian injury risk, or low tree cover; in US metropolitan areas, some of these burdens were greater in socially vulnerable communities [10]. An apparently health-promoting environmental feature may therefore coexist with countervailing conditions that alter its practical or clinical meaning.

Context can further change whether an environmental resource is used. During the COVID-19 pandemic, perceived neighborhood conditions were associated with physical activity and mental-health measures, with poverty and crisis conditions influencing the context in which neighborhood features operated [11]. Longitudinal ecological evidence from parkrun in England offers a related distinction: geographic distance to a free community activity narrowed over time, yet socioeconomic inequalities in participation persisted [12].

These patterns motivate an exception-first interpretation. Before concluding that a neighborhood resource should improve behavior, the analysis should ask whether the resource is physically reachable, safe, affordable, socially acceptable, temporally usable, and free from competing environmental harms. **Table 1** separates these failure modes because nominal environmental opportunity and realized behavioral opportunity are not equivalent.

Table 1. When neighborhood opportunity fails to become usable behavioral opportunity

Neighborhood condition	Usability constraint	Opportunity modifier	Context condition	Competing account	Trajectory effect
Observed neighborhood condition — Amenity is geographically nearby					
Why a health-promoting interpretation may fail	Distance alone does not establish affordability, safety, time availability, or participation	Context that changes usability	Work schedules, caregiving, mobility, cost, social acceptance	Competing explanation or uncertainty	Residents may value the resource but still be unable to use it
Boundary case	Access improves while participation remains socially patterned	Consequence for interpretation	Separate geographic availability from realized uptake		
Observed neighborhood condition — Area is highly walkable					
Why a health-promoting interpretation may fail	Walking support can coexist with pollution, heat, noise, traffic injury risk, or limited greenery	Context that changes usability	Traffic intensity, climate, street design, environmental burden	Competing explanation or uncertainty	A walkability indicator may conceal exposures relevant to health
Boundary case	High pedestrian support with high environmental hazard	Consequence for interpretation	Evaluate the environmental package rather than one favorable attribute		
Observed neighborhood condition — Physical-activity infrastructure expands					
Why a health-promoting interpretation may fail	Greater supply does not guarantee equivalent use across social groups	Context that changes usability	Deprivation, perceived safety, culture, gender, age	Competing explanation or uncertainty	Participation differences may arise from constraints outside the facility itself
Boundary case	Short travel distance with persistent participation inequality	Consequence for interpretation	Do not infer behavioral equality from infrastructure equality		
Observed neighborhood condition — Neighborhood is perceived as unsafe or unstable					

Why a health-promoting interpretation may fail	Formal resources may be behaviorally unusable despite physical presence	Context that changes usability	Crisis conditions, violence concerns, social disorder	Competing explanation or uncertainty	Perceptions may reflect both objective conditions and individual experience
Boundary case	Same built environment, different perceived feasibility	Consequence for interpretation	Treat perceived usability as distinct from mapped availability		
Observed neighborhood condition — Multiple supportive features are present					
Why a health-promoting interpretation may fail	Effects can remain small, absent, or subgroup-specific	Context that changes usability	Socioeconomic position, life stage, gender, local urban form	Competing explanation or uncertainty	Null findings may reflect measurement, context, or genuine lack of effect
Boundary case	Supportive environment without measurable behavior difference	Consequence for interpretation	Preserve null evidence rather than assuming latent benefit		

Note: The failure-mode classification is proposed by this article to organize evidence-supported distinctions. It is not a validated neighborhood scoring system and does not imply that any single condition determines behavior.

Social relationships, norms, and institutions

Social determinants also operate through relationships and institutions, but these levels should not be merged. Structural racism, for example, is expressed through institutional rules, policies, segregation, resource allocation, and historically patterned opportunity rather than being reducible to interpersonal prejudice [13]. Institutional conditions can therefore shape the distribution of exposure before any individual encounter occurs.

At the relational level, social connection can influence health through pathways only partly captured by conventional behavior. In a large multinational prospective study, social isolation was associated with mortality and selected morbidity, while measured behaviors explained only part of the observed relationship [14]. This cautions against assuming that relational disadvantage matters solely because isolated individuals adopt less healthy behavior.

Networks can nevertheless shape enacted behavior. Network partners' behaviors and attitudes contributed information about healthy eating and meat consumption beyond individual-level social-cognitive constructs, particularly for behavior rather than intention [15]. Longitudinal work on health-related social control similarly shows that interpersonal attempts to regulate another person's behavior vary over time and are associated with differing alcohol-use patterns [16]. Social influence is therefore neither uniformly protective nor stable.

Status within relationships and communities may add another layer. Measures of subjective social status and

perceived respect have been associated with health behaviors, yet behavioral differences explained only a limited share of corresponding health disparities [17]. Taken together, these findings support a multilevel interpretation: institutions distribute resources and power; networks transmit norms, support, monitoring, and behavioral models; and individuals experience those conditions through context-dependent perceptions of belonging, status, and feasibility. The proposed framework nests relational processes within institutional opportunity structures rather than treating "social support" as a substitute for structural analysis.

Stress, cognitive load, and psychological mediation

Economic and social disadvantage can become behavior partly through psychological processes, but psychological mediation requires careful interpretation. Financial strain is measured inconsistently across studies [5], and the association between hardship and psychological distress observed during a cost-of-living crisis occurred within a particular economic and temporal context [6]. Psychological load should therefore not be inferred automatically from socioeconomic category.

Temporality is equally important. Bidirectional finance–health associations indicate that worsening health can contribute to later financial difficulty as well as the reverse [7]. A patient struggling to maintain treatment during a period of financial strain may therefore be experiencing both an upstream determinant and a downstream consequence of illness. Treating psychological distress as a fixed mediator between the two would obscure this feedback.

Neighborhood perceptions provide another example. Associations among neighborhood conditions, activity, and mental health during the pandemic varied with contextual disadvantage [11]. Subjective status research likewise suggests that behavior does not fully account for health differences associated with social positioning [17]. Psychological mediation may consequently involve threat appraisal, uncertainty, reduced perceived control, status concern, attentional competition, or future-orientation constraints, but the reviewed evidence does not justify claiming that every mechanism operates in every population.

The proposed account treats cognitive and psychological load as a transition state rather than a stable trait of disadvantaged people. An acute financial shock may alter attention temporarily; persistent scarcity may create repeated planning burdens; social devaluation may change the perceived costs of participation; and deteriorating health may feed back into both resource loss and distress. **Table 2** organizes these temporal possibilities while keeping observation separate from inference.

Table 2. Temporal transitions through which social constraint may become psychological load and altered behavioral feasibility

Initiating condition	Early psychological or attentional transition	Near-term behavioral implication	Persistence or feedback route	Interpretation boundary
Mechanism-context case — Acute financial disruption				
Sudden difficulty meeting essential expenses	Attention shifts toward immediate obligations and uncertainty	Preventive or discretionary health actions may be postponed	Resolution may restore options; continuing hardship may convert an acute disruption into chronic constraint	Distress should not be presumed solely from income level
Mechanism-context case — Persistent material scarcity				
Recurrent mismatch between resources and demands	Repeated planning, trade-offs, and reduced flexibility	Behaviors requiring money, time, transport, or preparation become harder to sustain	Health deterioration can create additional costs and deepen scarcity	Observed behavior does not reveal the person's preferred action
Mechanism-context case — Threatening or unstable neighborhood context				
Safety concerns or disruptive local conditions	Vigilance and reduced perceived usability of local resources	Outdoor activity or community participation may decline despite nominal availability	Avoidance can reduce social connection or access to supportive routines	Perceived threat and objective hazard are related but not interchangeable
Mechanism-context case — Social devaluation or low perceived standing				
Repeated experiences of low respect, exclusion, or status disadvantage	Changed expectations about belonging, control, or social evaluation	Participation may depend more strongly on relational context and perceived social cost	Network responses can buffer, reinforce, or redirect the experience	Subjective status cannot be inferred from demographic membership
Mechanism-context case — Illness-related resource loss				
Symptoms, disability, treatment demands, or reduced earning capacity	New uncertainty and competition for attention	Self-management must compete with employment, caregiving, and financial survival	Health decline can worsen finances, which can further constrain health behavior	Reciprocal association does not establish a single causal direction

Note: These entries represent candidate temporal transitions used to examine how social constraint may accumulate, persist, or be redirected. They are not intended as fixed stages, diagnostic categories, or a universal sequence.

Behavioral adaptation under constraint

If opportunity, stress, relationships, and institutional conditions differ, health behavior should not be interpreted independently of the context in which it occurs. Qualitative evidence describing socioeconomic differences in health practices shows that people organize behavior within available resources, social relationships, illness demands, and perceived control [1]. The systematic evidence on behavioral mediation further demonstrates why behavior cannot be dismissed: differences in smoking, diet, physical activity, and related practices can contribute meaningfully to health inequality [2]. The conceptual error arises when contribution is converted into sole explanation.

The proposed framework therefore distinguishes behavioral adaptation from behavioral benefit. A behavior may be understandable or locally functional under constraint while remaining harmful over a longer clinical horizon. Choosing inexpensive calorie-dense food can reduce immediate financial and time pressure without promoting metabolic health. Avoiding an unsafe outdoor environment may be a rational response to perceived threat while reducing opportunities for physical activity. Missing an appointment can reflect transport failure or competing employment demands rather than indifference to treatment.

Social influence further complicates the idea of autonomous preference. Network behavior can explain aspects of enacted dietary behavior not captured by individual intention alone [15]. The relevant unit is therefore not an isolated decision-maker but a person embedded in material, relational, and institutional conditions.

This framing does not eliminate agency. It changes the question from “Why did the patient choose incorrectly?” to “What set of actions was feasible, sustainable, socially supported, and meaningful under the conditions present?” Agency remains important precisely because people respond differently to similar constraints. The framework therefore avoids predicting behavior directly from deprivation status. It instead proposes that social conditions reshape the distribution of feasible actions and the costs of maintaining them, producing heterogeneous adaptations rather than one deterministic disadvantaged behavioral profile.

Disease experience and self-management

Chronic illness makes the determinants–behavior connection particularly visible because treatment depends on repeated action over time. Self-management can require medication acquisition, dietary modification, symptom monitoring, physical activity, appointments, digital communication, transport, time off work, disease knowledge, and coordination with family or caregivers. These requirements transform social resources into components of treatment feasibility.

A scoping review of chronic-disease self-management programs identified barriers and facilitators spanning logistics, competing commitments, illness perceptions, service provision, and group dynamics [18]. The implication is that enrollment or attendance cannot be interpreted as a direct measure of motivation. A program can be clinically appropriate yet practically inaccessible. Evidence from diabetes sharpens this distinction. A systematic qualitative synthesis among people experiencing socioeconomic deprivation identified costs, food access, time, health literacy, cultural conditions, and formal and informal support as interacting influences on self-management [19]. Such findings support treating self-management capacity as socially distributed rather than solely educational or psychological.

Even within an insured population, social determinants have shown behavior-specific and sometimes unexpected associations with diabetes self-care practices [20]. This heterogeneity matters. A determinant that interferes with one aspect of care need not produce the same relationship with another, and insurance coverage does not eliminate constraints involving food, housing, neighborhood conditions, stress, or competing demands.

The proposed framework therefore conceptualizes disease experience as a conversion point. Once illness is present, social inequality is repeatedly translated into treatment workload, opportunity costs, symptom interpretation, interaction with clinicians, and the capacity to sustain self-management. At the same time, illness can feed back into employment, household finances, mobility, and social participation, modifying the determinants encountered later. Self-management is thus neither simply a patient characteristic nor merely a clinical instruction followed with varying adherence. It is an ongoing negotiation between treatment demands and the resources, relationships, environments, and institutional arrangements available to the person. This distinction becomes essential in the next stage of the model, where social conditions influence not only what

patients do outside healthcare but also whether care can be reached, navigated, understood, and sustained.

Healthcare access and treatment response

Social determinants continue to shape clinical trajectory after a person decides to seek care. Transportation insecurity is associated with some cancer-screening outcomes, but the relationship differs by screening type and is not uniformly offset by social support [21]. Housing insecurity likewise identifies patients with distinctive emergency-care use and social needs, although such observational patterns do not establish that housing instability alone causes utilization [22]. Neighborhood disadvantage has also been associated with differences in hypertension prevalence and treatment [23].

Digital access creates another gate. Among adults with chronic conditions, patient-portal use remained patterned

by age, health literacy, race and ethnicity, and related characteristics despite portal availability [24]. Affordability and primary-care access also vary by income across high-income health systems [25], while accumulated social risks are associated with poorer care access even among insured populations [26]. At the clinical encounter itself, patients and clinicians may prioritize different social needs, and response is constrained by time, expertise, and team capacity [27]. The proposed model therefore separates care availability, usable access, participation, treatment exposure, and response. Failure at one stage cannot automatically be labeled nonadherence at another.

Because these constraints operate at different levels, **Table 3** maps where an apparently available treatment pathway can become practically unusable.

Table 3. Multilevel constraints that separate healthcare availability from usable treatment opportunity

Healthcare availability condition	Usability barrier	Treatment-opportunity consequence	Interpretive boundary
Constraint location — Household/material			
What can be disrupted	Transport, housing stability, medication or visit costs	Why availability may be insufficient	Reaching and sustaining care may compete with basic needs
Important boundary	Insurance does not remove every material constraint		
Constraint location — Neighborhood			
What can be disrupted	Local service distribution and disease-management opportunity	Why availability may be insufficient	Place-based disadvantage can shape both burden and access
Important boundary	Geographic association does not prove individual causation		
Constraint location — Digital interface			
What can be disrupted	Portal use, messaging, scheduling, information retrieval	Why availability may be insufficient	Technical availability requires literacy, access, confidence, and usability
Important boundary	Account possession is not equivalent to meaningful participation		
Constraint location — Health-system design			
What can be disrupted	Primary-care affordability and continuity	Why availability may be insufficient	Identical income disadvantage can produce different access barriers across systems
Important boundary	System effects are context-dependent		
Constraint location — Clinical encounter			
What can be disrupted	Recognition and response to social needs	Why availability may be insufficient	Time, expertise, agenda alignment, and team resources limit action
Important boundary	Identification of need does not guarantee effective resolution		

Note: The levels are analytically separated by this article to prevent access, use, participation, and treatment response from being treated as interchangeable outcomes.

Cumulative clinical trajectories

Social inequality may enter clinical trajectories repeatedly rather than at a single causal starting point. Neighborhood deprivation–multimorbidity relationships differ across ethnic groups, and diagnostic ascertainment can complicate interpretation of observed differences [28]. Life-course neighborhood disadvantage has been associated with premature mortality, emphasizing timing and accumulation [29]. Socioeconomic inequalities have also been observed across several transitions involving cardiometabolic disease and depression rather than only at initial disease onset [30].

The proposed model therefore treats trajectory as a sequence of state transitions. Material constraint may shape behavior before disease, illness may later increase financial burden, healthcare barriers may modify treatment exposure, and accumulated disease can further restrict future behavioral options. None of these transitions is assumed to occur uniformly.

An integrated determinants–behavior–trajectory model

The article's proposed model integrates five distinctions established across the preceding sections. First, structural

conditions generate opportunity and constraint but do not directly specify individual behavior. Second, psychological and relational processes can mediate or modify those conditions without being inevitable consequences of disadvantage. Third, behavior represents adaptation within a feasible action set rather than a transparent measure of preference. Fourth, chronic illness transforms social resources into treatment capacity and workload. Fifth, healthcare systems create additional gates between need, access, participation, treatment exposure, and clinical response.

The information environment may add another contextual layer because exposure to misinformation and differential trust can shape how health information is interpreted and acted upon [31]. This element is retained as a distinct contextual pathway rather than folded into individual knowledge.

The model is deliberately non-deterministic. It contains reciprocal pathways, competing exposures, interruption points, and measurement boundaries. **Table 4** distinguishes constructs that are often collapsed, while **Figure 1** represents the temporal transitions and feedback structure.

Table 4. Construct discrimination required for interpreting determinants–behavior–trajectory evidence

Evidence pattern or boundary case	Construct that should remain distinct	Common misinterpretation	Model interpretation
Healthy resource exists nearby but is unused	Nominal opportunity vs usable opportunity	Resource presence proves equal access	Feasibility depends on safety, time, cost, and competing exposure
Harmful behavior occurs under deprivation	Adaptation vs preference	Behavior reveals unconstrained choice	Behavior may be locally functional while clinically harmful
Distress accompanies financial hardship	Psychological mediation vs structural exposure	Disadvantage is reduced to individual psychology	Psychological load is one possible transition pathway
Patient does not complete recommended care	Participation vs motivation	Noncompletion demonstrates unwillingness	Care may fail at transport, affordability, digital, or encounter gates
Disease worsens alongside declining finances	Exposure vs feedback consequence	Economic disadvantage operates only upstream	Illness can feed back into later material constraint
Group differences appear in clinical outcomes	Social pattern vs individual mechanism	Group membership identifies a psychological or behavioral cause	Mechanism requires separate measurement and validation

Note: These distinctions form part of the proposed theory. They are analytical safeguards, not empirically validated diagnostic categories.

The temporal architecture is summarized in **Figure 1**.

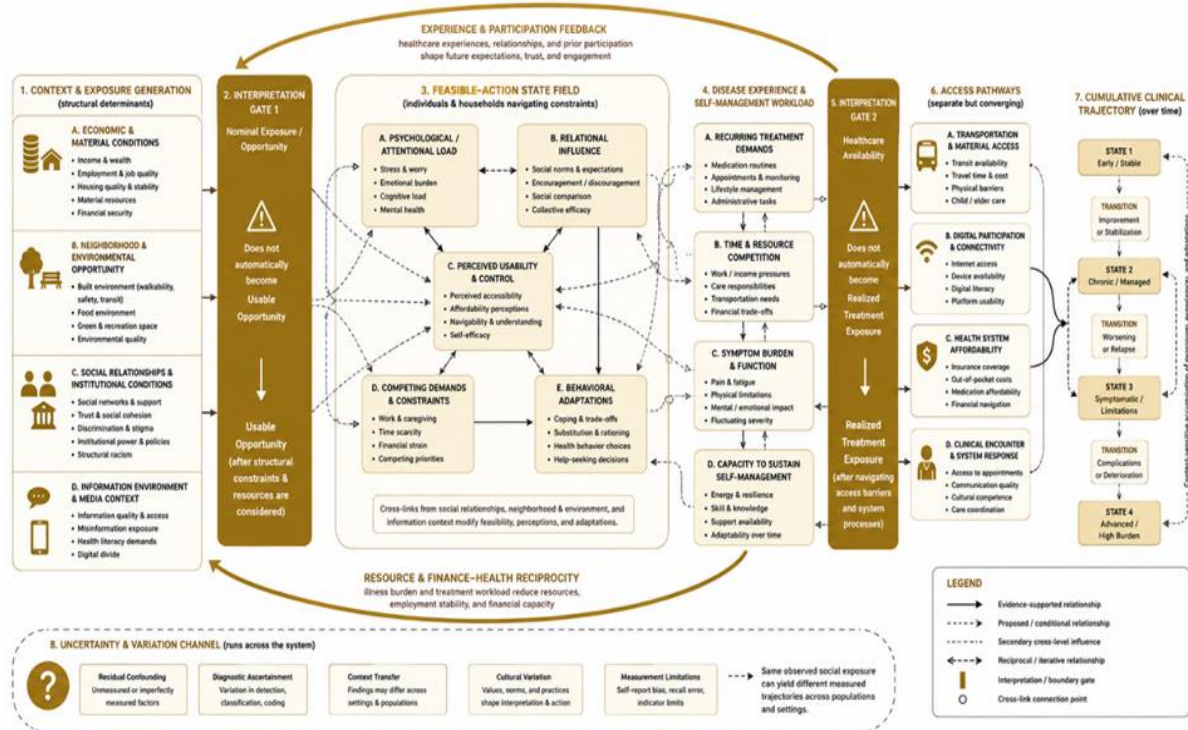


Figure 1. Constraint gates and feedback states through which inequality can alter behavior and clinical trajectory

Intervention and policy leverage points

If inequality acts through multiple gates, intervention level should match the level producing the constraint. Clinical programs that translate structural problems entirely into individual social needs may inadvertently reproduce inequity by medicalizing conditions generated outside healthcare [32]. Reviews of social-needs interventions also show heterogeneous and still-limited evidence concerning utilization, costs, and integration of care [33].

More intensive assistance should not automatically be assumed superior. In one randomized trial, adding navigation to personalized social-resource information did not produce a significant primary between-group advantage [34]. Conversely, a healthy-food benefit program improved food security and selected dietary outcomes while effects remained outcome- and subgroup-dependent [35].

The proposed implication is therefore level-matched leverage: structural constraints require structural or policy responses where feasible; organizational barriers require redesign of services; and patient-level support is most defensible when the relevant bottleneck genuinely lies at the patient-care interface.

Results and Discussion

The evidence assembled here does not support a single deterministic pathway from inequality to unhealthy behavior and then disease. It supports a more conditional interpretation. Behavioral mediation is real but heterogeneous [2]; economic and health states can become reciprocal [7]; apparently supportive neighborhoods can produce null behavioral differences [9] or coexist with countervailing environmental burdens [10]; and self-management relationships can vary across behaviors even within insured populations [20].

The proposed model therefore shifts the explanatory unit from isolated choice to transitions under constraint. Its value lies in separating constructs that conventional analyses often collapse. Its limitations are equally important: the component evidence spans different populations, designs, diseases, measures, cultures, and health systems, and no study validates the complete architecture. Future tests should therefore examine individual gates and feedback relationships longitudinally rather than seeking a single global confirmation of the model.

Conclusion

Social inequality becomes clinically consequential through more than behavioral choice. Material conditions, environments, relationships, psychological load, illness workload, and healthcare systems can alter which actions are feasible and whether those actions can be sustained. The proposed determinants–behavior–trajectory model organizes these transitions while preserving reciprocity, heterogeneity, and uncertainty. Its central implication is analytical: behavior should be explained within the conditions that make it possible, costly, adaptive, or unsustainable rather than treated as a substitute for those conditions.

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References

1. McCoy CA, Johnston E, Hogan C. The impact of socioeconomic status on health practices via health lifestyles: Results of qualitative interviews with Americans from diverse socioeconomic backgrounds. *Soc Sci Med.* 2024;344:116618. doi:10.1016/j.socscimed.2024.116618
2. Petrovic D, de Mestral C, Bochud M, Bartley M, Kivimäki M, Vineis P, et al. The contribution of health behaviors to socioeconomic inequalities in health: A systematic review. *Prev Med.* 2018;113:15-31. doi:10.1016/j.ypmed.2018.05.003
3. Stringhini S, Carmeli C, Jokela M, Avendaño M, Muennig P, Guida F, et al. Socioeconomic status and the 25 × 25 risk factors as determinants of premature mortality: A multicohort study and meta-analysis of 1.7 million men and women. *Lancet.* 2017;389(10075):1229-37. doi:10.1016/S0140-6736(16)32380-7
4. Moor I, Spallek J, Richter M. Explaining socioeconomic inequalities in self-rated health: A systematic review of the relative contribution of material, psychosocial and behavioural factors. *J Epidemiol Community Health.* 2017;71(6):565-75. doi:10.1136/jech-2016-207589
5. Samuel LJ, Abshire Saylor M, Choe MY, Smith Wright R, Kim B, Nkimbeng M, et al. Financial strain measures and associations with adult health: A systematic literature review. *Soc Sci Med.* 2025;364:117531. doi:10.1016/j.socscimed.2024.117531
6. Jackson SE, Cox S, Holmes J, Angus C, Robson D, Brose L, et al. Paying the price: Financial hardship and its association with psychological distress among different population groups in the midst of Great Britain's cost-of-living crisis. *Soc Sci Med.* 2025;364:117561. doi:10.1016/j.socscimed.2024.117561
7. Bialowolski P, Cwynar A, Weziak-Bialowolska D. Bidirectional, longitudinal associations between finance and health—what comes first? Evidence from middle-aged and older adults in Europe. *Soc Sci Med.* 2025;385:118633. doi:10.1016/j.socscimed.2025.118633
8. Andersen OK, Gebremariam MK, Kaupang OB, Lien N, Kolle E. Built for movement: Neighborhoods and adolescent physical activity behaviors, and the moderating role of socioeconomic position and gender. *Health Place.* 2024;89:103313. doi:10.1016/j.healthplace.2024.103313
9. Lamb KE, Daniel M, Chaix B, Kestens Y, Coffee NT, Thornton LE. Socioeconomic differences in associations between living in a 20-min neighbourhood and diet, physical activity and self-rated health: Cross-sectional findings from ProjectPLAN. *Health Place.* 2023;84:103119. doi:10.1016/j.healthplace.2023.103119
10. Braun LM, Fox EH, Frank LD. Is walkability healthy for all? Using the National Environmental Database to examine equity in the environmental health characteristics of pedestrian-supportive neighborhoods in the U.S. *Soc Sci Med.* 2025;374:118024. doi:10.1016/j.socscimed.2025.118024
11. Yang Y, Xiang X. Examine the associations between perceived neighborhood conditions, physical activity, and mental health during the COVID-19 pandemic. *Health Place.* 2021;67:102505. doi:10.1016/j.healthplace.2021.102505
12. Smith RA, Schneider PP, Cosulich R, Quirk H, Bullas AM, Haake SJ, et al. Socioeconomic inequalities in distance to and participation in a community-based running and walking activity: A longitudinal ecological study of parkrun 2010 to

2019. *Health Place*. 2021;71:102626. doi:10.1016/j.healthplace.2021.102626
13. Braveman PA, Arkin E, Proctor D, Kauh T, Holm N. Systemic and structural racism: Definitions, examples, health damages, and approaches to dismantling. *Health Aff (Millwood)*. 2022;41(2):171-8. doi:10.1377/hlthaff.2021.01394
14. Naito R, Leong DP, Bangdiwala SI, McKee M, Subramanian SV, Rangarajan S, et al. Impact of social isolation on mortality and morbidity in 20 high-income, middle-income and low-income countries in five continents. *BMJ Glob Health*. 2021;6(3). doi:10.1136/bmjgh-2020-004124
15. Zintel S, Schumacher L, Kaiser AK, Sniehotta FF. Social networks and the theory of planned behavior: How networks matter for healthy eating and meat consumption. *Soc Sci Med*. 2026;400:119300. doi:10.1016/j.socscimed.2026.119300
16. Tucker JS, Rodriguez A, Green HD Jr, Seelam R, Henshel B, Pollard MS. Health-related social control among U.S. adults ages 30-80: Associations with alcohol use over four years. *Soc Sci Med*. 2024;352:117004. doi:10.1016/j.socscimed.2024.117004
17. Andersson MA, Link BG. Friends, neighbors, country, and respect: Status ladders and health behaviors in the United States. *Soc Sci Med*. 2024;361:117396. doi:10.1016/j.socscimed.2024.117396
18. Kessler D, McCutcheon T, Rajachandrakumar R, Lees J, Deyell T, Levy M, et al. Understanding barriers to participation in group chronic disease self-management programs: A scoping review. *Patient Educ Couns*. 2023;115:107885. doi:10.1016/j.pec.2023.107885
19. Woodward A, Walters K, Davies N, Nimmons D, Protheroe J, Chew-Graham CA, et al. Barriers and facilitators of self-management of diabetes amongst people experiencing socioeconomic deprivation: A systematic review and qualitative synthesis. *Health Expect*. 2024;27(3). doi:10.1111/hex.14070
20. Burch AE, Elliott SK, Harris ST. Associations between social determinants of health and diabetes self-care behaviors among insured adult patients. *Diabetes Res Clin Pract*. 2024;207:111048. doi:10.1016/j.diabres.2023.111048
21. Pohl AL, Aderonmu AA, Grab JD, Cohen-Tigor LA, Morris AM. Transportation insecurity, social support, and adherence to cancer screening. *JAMA Netw Open*. 2025;8(1). doi:10.1001/jamanetworkopen.2024.57336
22. Ball MAZ, Sack DE, Druffner SA, Jones I, Wrenn JO, Sexton MM, et al. Characteristics and health care utilization of patients with housing insecurity in the ED. *JAMA Netw Open*. 2024;7(4). doi:10.1001/jamanetworkopen.2024.8565
23. Blazel MM, Perzynski AT, Gunsalus PR, Mourany L, Gunzler DD, Jones RW, et al. Neighborhood-level disparities in hypertension prevalence and treatment among middle-aged adults. *JAMA Netw Open*. 2024;7(8). doi:10.1001/jamanetworkopen.2024.29764
24. Yoon E, Hur S, Opsasnick L, Huang W, Batio S, Curtis LM, et al. Disparities in patient portal use among adults with chronic conditions. *JAMA Netw Open*. 2024;7(2). doi:10.1001/jamanetworkopen.2024.0680
25. Doty MM, Tikkanen RS, FitzGerald M, Fields K, Williams RD 2nd. Income-related inequality in affordability and access to primary care in eleven high-income countries. *Health Aff (Millwood)*. 2021;40(1):113-20. doi:10.1377/hlthaff.2020.01566
26. Nguyen KH, Cole MB. Social risk factors, health insurance coverage, and inequities in access to care. *Am J Prev Med*. 2025;68(1):145-53. doi:10.1016/j.amepre.2024.09.005
27. De Leon E, Panganamamula S, Schoenthaler A. Health-related social needs discussions in primary care encounters in safety-net clinics: A qualitative analysis. *JAMA Netw Open*. 2025;8(3). doi:10.1001/jamanetworkopen.2025.1997
28. Jivraj S, Lloyd CD, Catney G, McLennan D. Finding health in a disadvantaged place: Ethnic differences in multimorbidity by neighbourhood deprivation in England and Wales. *Soc Sci Med*. 2026;390:118862. doi:10.1016/j.socscimed.2025.118862
29. Lawrence WR, Kucharska-Newton AM, Magnani JW, Brewer LC, Shiels MS, George KM, et al. Neighborhood socioeconomic disadvantage across the life course and premature mortality. *JAMA Netw Open*. 2024;7(8). doi:10.1001/jamanetworkopen.2024.26243
30. Chen H, Wang X, Cao Z, Xu C. Socioeconomic inequalities in developing cardiometabolic diseases and transition to depression: A trajectory analysis of large-scale population-based study. *Soc Sci Med*. 2025;384:118542. doi:10.1016/j.socscimed.2025.118542

31. Palmer A, Gorman S. Misinformation, trust, and health: The case for information environment as a major independent social determinant of health. *Soc Sci Med.* 2025;381:118272. doi:10.1016/j.socscimed.2025.118272
32. Pfeiffer EJ, Mendez S. Medicalizing the social determinants of health and the inadvertent reproduction of inequities through social-care program implementation in the United States. *Soc Sci Med.* 2026;392:118981. doi:10.1016/j.socscimed.2026.118981
33. Chuang E, Safaeinili N. Addressing social needs in clinical settings: Implementation and impact on health care utilization, costs, and integration of care. *Annu Rev Public Health.* 2024;45(1):443-64. doi:10.1146/annurev-publhealth-061022-050026
34. Gottlieb LM, Adler NE, Wing H, Velazquez D, Keeton V, Romero A, et al. Effects of in-person assistance vs personalized written resources about social services on household social risks and child and caregiver health: A randomized clinical trial. *JAMA Netw Open.* 2020;3(3). doi:10.1001/jamanetworkopen.2020.0701
35. Knox MA, Wallace J, Baquero B, Hara-Hubbard K, Jones-Smith J. Healthy food benefit programs, fruit and vegetable consumption, and food security. *JAMA Netw Open.* 2025;8(8). doi:10.1001/jamanetworkopen.2025.27601