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Beyond healthcare: Addressing social determinants to achieve equitable and sustainable global health

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Abstract

Health outcomes are shaped not only by healthcare but also by the social, economic, and environmental conditions in which people are born, grow, live, work, and age. This narrative review examines how social determinants of health (SDH) such as income, education, housing, employment, gender, and environmental quality shape population health outcomes and contribute to persistent global health inequities. Evidence from peer-reviewed literature and global policy reports published between 2010 and 2024 was synthesized to identify key pathways through which social conditions influence health and to examine strategies for promoting health equity. The review highlights that clinical care accounts for only a small proportion of population health outcomes, whereas social and structural determinants drive the majority of health disparities. Multisectoral policy interventions addressing education, economic opportunity, housing, and environmental conditions are therefore essential for sustainable health improvement. Integrating SDH into national and global health agendas is critical for advancing the Sustainable Development Goals (SDGs), particularly those targeting poverty reduction, education, gender equality, and climate action. Achieving universal health equity ultimately requires transforming social structures and governance systems that perpetuate disadvantage, ensuring that all individuals regardless of socioeconomic status or geographic location have the opportunity to attain optimal health.

Keywords: Social determinants of health; Health equity; Population health; Global health policy; Sustainable development; Multisectoral action

1. Introduction

Health is shaped by far more than the availability of healthcare. Increasing evidence demonstrates that the social, economic, and environmental contexts in which individuals live exert profound influences on health outcomes across the life course [1]. These conditions, collectively referred to as the social determinants of health (SDH), include factors such as income, education, housing, employment, gender relations, and environmental quality [2]. They are shaped by

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the distribution of power, resources, and opportunities within societies and ultimately determine the extent to which individuals can achieve and maintain good health.

The influence of SDH operates across multiple domains that interact to shape population health outcomes and health equity [3]. Key domains include education, economic stability, healthcare access, the built environment, and the broader social context (Table 1).

Table 1 Major Domains of Social Determinants of Health [3]

Domain	Description	Health Implications
Education	Access to quality education and lifelong learning	Higher health literacy and improved employment opportunities
Economic stability	Employment, income security, and social protection	Ability to afford housing, nutrition, and healthcare
Healthcare access	Availability, affordability, and quality of healthcare services	Prevention and effective treatment of disease
Built environment	Housing quality, sanitation, and environmental exposure	Reduced risk of infectious and chronic disease
Social context	Community cohesion, discrimination, and social capital	Mental health, resilience, and overall well-being

Beyond these domains, broader structural forces that include governance systems, economic policies, and social hierarchies shape the distribution of social determinants and ultimately influence patterns of health and disease across populations [4]. The concept of social determinants of health highlights that health outcomes are not simply the result of biological processes or individual behaviors but are deeply embedded within social structures.

Figure 1 illustrates the Conceptual Framework of Social Determinants of Health [3]. Structural determinants influence how resources and opportunities are distributed within societies, thereby shaping individuals' exposure to health risks and their access to protective factors. These upstream determinants subsequently affect intermediary conditions such as living environments, working conditions, and access to healthcare services, which together influence population health outcomes and health equity [3,4].

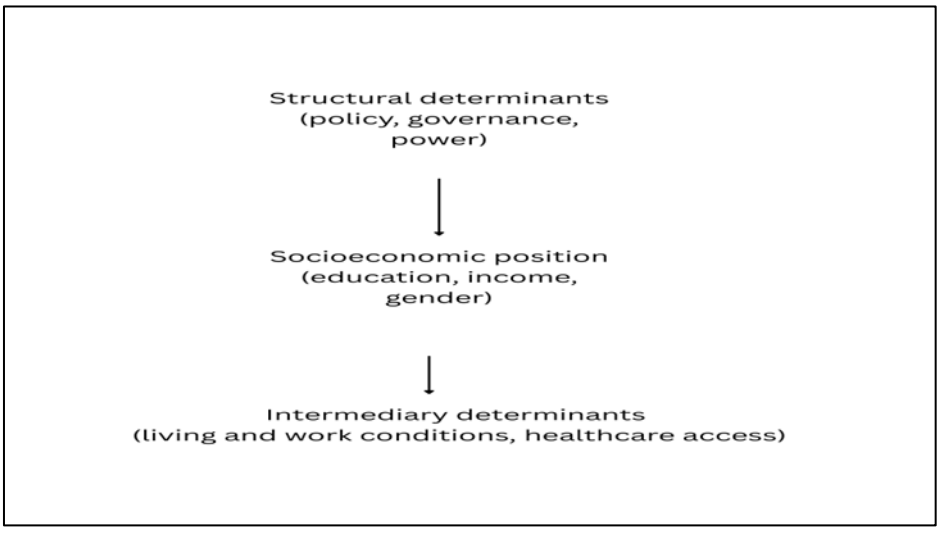

Figure 1 Conceptual Framework of Social Determinants of Health

A growing body of empirical evidence supports this broader understanding of health [1,4,5]. Studies suggest that healthcare services account for only 10–20% of modifiable health outcomes, whereas social, behavioral, and environmental factors contribute the majority of health differences across populations [5]. Communities with access to safe housing, quality education, stable employment, nutritious food, and clean environments consistently experience

better health outcomes than communities lacking these resources, regardless of the sophistication of their healthcare systems [5-9].

Recognition of the importance of SDH has increasingly influenced public health policy and global health agendas. International initiatives, including the World Health Organization Commission on Social Determinants of Health [2], have emphasized that reducing health inequities requires addressing the broader social conditions that shape health. National frameworks such as Healthy People 2030 [10], similarly highlight the importance of integrating SDH into health planning, reflecting a shift from treatment-centered healthcare systems toward upstream, prevention-focused approaches.

Despite growing recognition of these determinants, global health inequalities remain substantial. Life expectancy can differ by more than 30 years between countries, and significant disparities persist within countries across socioeconomic and geographic groups [6,11,12]. These inequalities reflect differences in access to education, employment, safe housing, environmental conditions, and healthcare services. Addressing these structural disparities therefore represents a critical priority for achieving equitable and sustainable population health.

This review synthesizes current evidence on the role of social determinants in shaping population health outcomes and explores policy strategies for addressing health inequities through multisectoral collaboration, community engagement, and justice-oriented governance.

2. Methods

This study employed a critical narrative review to examine how social determinants influence equitable and sustainable population health beyond the traditional boundaries of clinical care.

A structured literature search was conducted using PubMed, Scopus, and Google Scholar, as well as major global health policy repositories. Search terms included combinations of *social determinants of health*, *health equity*, *population health*, *structural determinants*, and *health inequalities*.

Eligible publications published between 2010 and 2024 included: peer-reviewed research articles, global health reports, policy frameworks, and conceptual and theoretical papers. Studies were included if they examined structural, socioeconomic, or environmental determinants of health or provided policy insights related to health equity and population health improvement. Articles focused solely on biomedical or clinical outcomes without consideration of social context were excluded.

The selected literature was analyzed using thematic content analysis, following the six-step framework described by Braun and Clarke [13]. Themes were subsequently organized according to the WHO Conceptual Framework for Social Determinants of Health, which distinguishes between structural determinants (governance, policies, and socioeconomic stratification) and intermediary determinants (living conditions, social environments, and health systems) [2,3].

Because the study relied exclusively on secondary data sources, ethical approval was not required.

3. Health Equity: A Fundamental Principle

Health equity represents a central ethical principle of public health. It reflects the commitment that all individuals should have a fair opportunity to attain their highest possible level of health, regardless of socioeconomic status, geographic location, or social identity [9, 14-16]. Achieving health equity therefore requires addressing the structural barriers that systematically disadvantage certain populations, including poverty, discrimination, and unequal access to essential social resources [4,9,14].

Despite remarkable advances in medical science, global health disparities remain stark. Life expectancy differences of several decades persist between high- and low-income countries and between socioeconomic groups within countries [6,10-12]. These disparities are largely attributable to differences in social and economic conditions rather than differences in access to medical care alone.

For example, individuals living in communities with limited educational opportunities, unsafe housing, and inadequate infrastructure often face higher exposure to infectious diseases, environmental hazards, and chronic health conditions

[17-19]. Such disparities illustrate that improving health outcomes requires interventions that extend beyond healthcare systems to address the social conditions that shape health opportunities.

Consequently, addressing SDH has become a central priority for public health policy. Governments, international organizations, and health systems increasingly recognize that reducing health inequities requires coordinated action across multiple sectors, including education, housing, labor, and environmental policy [20].

Addressing health inequities requires coordinated interventions that extend beyond the healthcare sector. Evidence increasingly demonstrates that policies targeting education, housing, employment, food systems, and urban planning can significantly improve population health and reduce disparities [20,21]. Effective responses therefore require multisectoral collaboration involving governments, health systems, and community organizations. Examples of policy approaches that address key social determinants of health are summarized in Table 2.

Table 2 Policy Interventions Addressing Social Determinants of Health [22]

Sector	Policy Intervention	Health Impact
Education	Universal access to quality education	Improved long-term health outcomes
Housing	Affordable and safe housing programs	Reduced environmental and infectious disease risks
Employment	Living wages and worker protection policies	Improved economic security and wellbeing
Food systems	Nutrition assistance and food security initiatives	Reduced malnutrition and chronic disease
Urban planning	Development of green spaces and walkable cities	Increased physical activity and improved mental health

These interventions highlight the importance of adopting a "Health in All Policies" approach, whereby health considerations are integrated into policymaking across sectors such as education, housing, labor, transportation, and environmental management [20,22].

4. Social Determinants of Health: A Human-Centered Perspective

In line with the Healthy People 2030 framework [10], the five domains of social determinants of health and their strategic relevance for promoting equity are summarized in Table 3. These domains underscore the everyday social factors that influence whether individuals experience long, healthy lives or face preventable illness and disadvantage.

Table 3 Summary of the Five Domains of Social Health Determinants

Domain	Why It Matters for Health	Strategic Focus for Equity
Education Access & Quality	Improves critical thinking, health literacy, and health outcomes	Invest in accessible, high-quality education for all
Healthcare Access & Quality	Ensures timely, affordable, and culturally competent care	Expand access to services and engage trusted community partners
Neighborhood & Built Environment	Affects safety, resource access, and exposure to environmental risks	Promote healthy urban design and equitable infrastructure
Social & Community Context	Provides support, resilience, and sense of belonging	Build social capital and foster community engagement
Economic Stability	Foundation for daily health and wellbeing	Enhance income security, create stable employment, and ensure affordable housing

They emphasize that health is shaped not only in hospitals but also in schools, workplaces, neighborhoods, and communities.

4.1. Education Access and Quality

Education lays the foundation for long-term health and wellbeing. Access to high-quality education enhances critical thinking, strengthens health literacy, and improves employment opportunities. Studies consistently show that individuals with higher education levels are more likely to adopt healthy behaviors, access preventive services, and enjoy longer life expectancy [7,23,24]. Educational attainment also predicts better maternal and child health outcomes, improved management of chronic diseases, and reduced mortality [25-27]. Conversely, limited educational opportunities trap families in cycles of poverty and poor health [28]. Poor-quality education often leads to low wages, restricted access to healthcare, unsafe environments, and limited access to accurate health information [29].

4.2. Healthcare Access and Quality

Healthcare access extends beyond physical presence of hospitals or clinics; it involves affordability, cultural responsiveness, quality of care, and trust. Barriers such as discrimination, high out-of-pocket costs, transportation challenges, and long wait times often prevent individuals from seeking care when needed [30,31]. Lack of trust in the healthcare system, often rooted in historical inequities and poor communication, discourages preventive and curative care [31]. Strengthening inclusive, affordable, and person-centered healthcare ensures that all populations can benefit equitably from medical and preventive services.

4.3. Neighborhood and Built Environment

Where people live profoundly impacts their health. Safe housing, clean water, green spaces, and protection from environmental hazards determine whether communities thrive. According to a recent WHO Report [32], one in four people worldwide still lacked safe drinking water. Unsafe neighborhoods discourage physical activity, while exposure to pollutants increases respiratory and cardiovascular illness [33]. Climate change, heatwaves, floods, and droughts disproportionately affect vulnerable populations, adding another layer of risk [34].

4.4. Social and Community Context

The social fabric of communities shapes health outcomes. Strong social connections, trust, and civic participation create resilience, reduce stress, and foster healthier behaviors [35]. Conversely, isolation, discrimination, and exclusion increase risks of mental health problems and unhealthy coping mechanisms [36]. Regulating harmful exposures, such as aggressive junk food and alcohol marketing, can reduce chronic disease risks [37].

4.5. Economic Stability

Economic security is a key predictor of health. Stable employment and income enable access to nutritious food, safe housing, education, and healthcare [38]. Economic insecurity reinforces cycles of disadvantage and contributes to both under-nutrition and obesity [39]. Social protection measures, including cash transfers, affordable healthcare, and income support, improve resilience and reduce health inequities [40].

In essence, health does not occur in isolation but is shaped by the world around us. Integrating SDH into the Essential Public Health Services ensures that communities have the structures and resources necessary for equity [41]. Addressing education, healthcare, environment, social support, and economic stability through policy and practice will help dismantle systemic barriers and advance health equity for all [42].

5. The Importance of Addressing Social Determinants of Health

Addressing social determinants of health (SDH) is crucial for improving public health because it moves beyond treating individual illnesses to tackling the root causes of disease and health inequality. SDH are the conditions in which people are born, grow, live, work, and age, and they are recognized as the primary drivers of health outcomes worldwide [1-3]. By promoting public health action through policies, intersectoral collaboration, and community engagement, societies can create a fairer and more effective health system for everyone [3,9,43].

5.1. Tackling Root Causes

Treating a person's immediate illness is vital, but if they return to an environment with no access to clean water, safe housing, or healthy food, the illness is likely to recur. For example, children discharged after diarrheal disease remain at high risk if sanitation and water issues are not improved. Studies consistently link poor living conditions to both communicable and non-communicable diseases [44]. Addressing these upstream conditions leads to long-term improvements, rather than short-term fixes.

5.2. Reducing Health Disparities

Health outcomes are not equally distributed. Research shows that people with lower incomes, less education, or who belong to marginalized ethnic groups have worse health outcomes [5,45]. Integrating health goals into transport, housing, and education policies improves equity. Addressing SDH helps close these health gaps, advancing health equity. The WHO Commission on Social Determinants of Health emphasized this approach as giving "everyone a fair chance to be healthy" [2].

5.3. Improving Population Health

Improving the health of the most vulnerable groups also improves overall societal health [46,47]. This leads to reduced healthcare costs, increased workforce productivity, and greater resilience in times of crisis. Studies show that countries investing in education, housing, and poverty reduction record strong improvements in health indicators [40,46,48].

6. Building a Healthier Society: A Three-Pillar Approach (Public Health Action)

Health is not solely a personal matter; well-being is shaped by the conditions of the communities in which people live. A truly healthy society is not just one that treats sickness; it is one that builds the foundations for health. This requires action on three core pillars: policy, partnership, and people.

6.1. Smart Policies for a Healthy Start

Government policies are powerful public health tools. They establish the conditions under which people live and work. For example, research shows that raising the minimum wage improves health outcomes, including reductions in low birth weight and infant mortality [49]. Policies that improve housing and employment security also reduce chronic illnesses and stress-related health problems [50]. Economic and social policies can therefore serve as effective public health interventions, improving population health from the ground up.

6.2. Diverse Partnerships for Shared Goals

Improving population health requires more than healthcare alone. Complex challenges, including food insecurity, chronic disease, environmental hazards, and health inequities, demand coordinated action across multiple sectors. Evidence shows that multi-sector collaborations can create sustainable improvements in health outcomes [51].

For instance, food-as-medicine initiatives demonstrate how healthcare systems, food banks, and community organizations can collaborate to address nutritional needs [52]. These programs reduce food insecurity, improve glycemic control, lower hospital utilization, and enhance chronic disease management [52,53]. Partnerships between schools, local farmers, and public health agencies have increased access to fresh foods and promoted healthier eating among low-income families [54].

Cross-sector collaboration also creates healthier environments. Urban planners, housing authorities, transportation agencies, and public health professionals working together can design neighborhoods that encourage physical activity, reduce pollution, and improve mental well-being. Climate-resilient urban planning interventions, such as heat reduction strategies, green infrastructure, and safe public spaces, disproportionately benefit vulnerable populations [55]. Figure 2 illustrates how diverse sectoral partnerships collaboratively advance population health and equity.

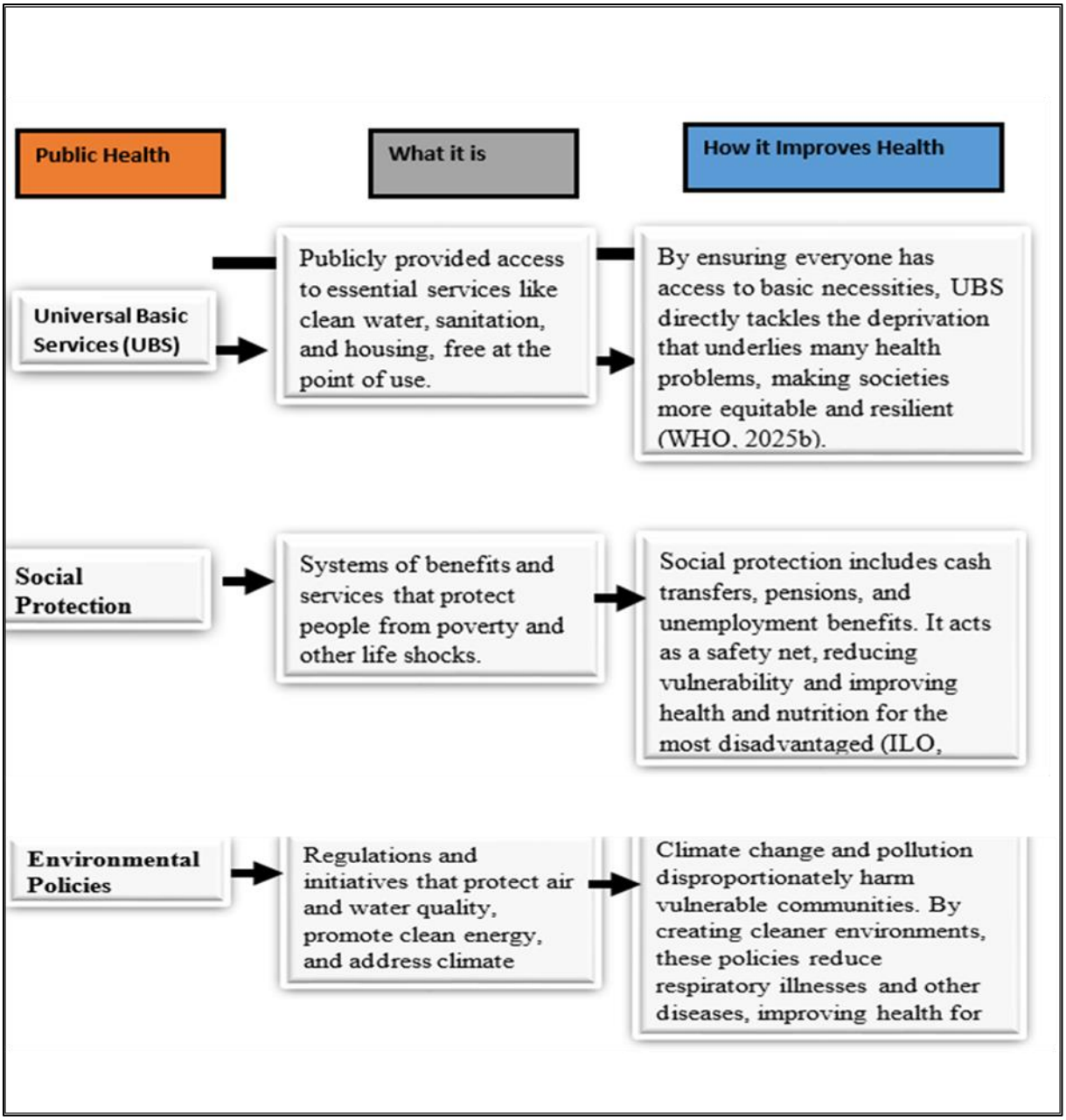

Figure 2 Diverse Partnerships for Shared Goals

6.3. Real-World Engagement with Communities

Sustainable change is most likely to occur when communities are actively engaged and individuals participate in identifying their needs and designing solutions. Such participation enhances program acceptance and effectiveness, particularly in disadvantaged areas [43]. For example, by involving residents in the design of local health projects, communities have seen higher vaccination rates and improved maternal and child health outcomes [56]. When people feel ownership over health interventions, they become active agents of change, fostering trust, resilience, and long-term wellbeing.

7. Discussion

The evidence reviewed in this manuscript underscores the central role of social determinants of health (SDH) in shaping population health outcomes and health inequities across societies. Although advances in biomedical science and clinical medicine have substantially improved disease diagnosis and treatment, they account for only a portion of the variation observed in health outcomes. Instead, the conditions in which individuals are born, grow, live, work, and age exert a

profound influence on health across the life course [6,9,14]. Educational opportunities [24,26,28], economic stability [11,38,39,45], access to healthcare [29,30], neighborhood environments [33], and social relationships [35,36], collectively determine exposure to health risks and access to protective resources. Consequently, improving population health requires strategies that extend beyond healthcare delivery to address the broader social and structural determinants that shape health opportunities [20,48,50].

The review further highlights that inequities in these determinants translate directly into disparities in health outcomes between and within countries. Populations experiencing poverty, limited educational opportunities, inadequate housing, environmental hazards, or social exclusion consistently bear a disproportionate burden of communicable and non-communicable diseases [44]. These disparities reflect systemic differences in the distribution of resources, opportunities, and power within societies. The report of the World Health Organization Commission on Social Determinants of Health emphasized that reducing health inequities requires improving the conditions of daily life and addressing the structural drivers of inequity [2].

Addressing SDH also presents an opportunity to strengthen overall population health and health system sustainability. Evidence demonstrates that investments in education [27], social protection [35,40], and community infrastructure [8,33] are associated with measurable improvements in health outcomes while simultaneously reducing healthcare expenditures and increasing societal productivity. Preventive strategies targeting upstream determinants therefore generate long-term benefits that extend beyond the health sector, contributing to broader social and economic development.

Effective responses to social determinants require coordinated action across multiple sectors. Health systems alone cannot adequately address complex challenges such as poverty, food insecurity, environmental exposure, or unsafe living conditions. Instead, integrated policy approaches that align health objectives with initiatives in education, labor, housing, urban development, environmental protection, and social welfare are essential [2,51,54]. The approaches highlight the importance of addressing the broader social environments in which health is produced and maintained.

Equally important is the role of partnerships and community engagement in advancing health equity. Collaborative initiatives involving healthcare institutions, community organizations, educational systems, urban planners, and local governments can create environments that support healthier lifestyles and reduce exposure to health risks. Evidence from community-based programs indicates that when local stakeholders participate in identifying priorities and designing interventions, programs achieve greater effectiveness and sustainability [43,52,56]. Community participation therefore strengthens the relevance, acceptability, and long-term impact of public health interventions while fostering social cohesion and resilience.

Taken together, the findings of this review reinforce the need for a comprehensive public health approach that recognizes health as a product of social systems as much as medical care. Policies that expand access to quality education, strengthen social protection mechanisms, improve housing and neighborhood environments, and promote equitable access to healthcare services represent critical investments in population health [51,57,58]. Similarly, economic policies that promote fair employment opportunities and living wages can reduce poverty-related health risks and enhance overall well-being [38,49].

8. Conclusion

Addressing the social determinants of health is essential for improving population health and reducing persistent health inequities. The evidence presented in this review demonstrates that health outcomes are profoundly shaped by social, economic, and environmental conditions rather than by healthcare services alone. Sustainable improvements in health therefore require a shift from reactive treatment toward preventive strategies that address the underlying drivers of disease and inequality.

Achieving this goal demands sustained policy commitment and coordinated action across multiple sectors. Investments in education, housing, employment opportunities, social protection, and equitable healthcare access create the conditions that allow individuals and communities to maintain good health. Integrating health considerations into policies related to urban planning, environmental management, labor, and social welfare can further ensure that the environments in which people live and work actively promote well-being.

Health systems must therefore evolve beyond their traditional clinical role to function as partners in broader societal efforts aimed at improving the conditions that shape health. Through multisectoral collaboration, community engagement, and evidence-informed policymaking, governments and institutions can address the structural

determinants that perpetuate health disparities. By embedding equity within public health policy and practice, societies can build resilient communities, reduce preventable disease burdens, and ensure that all individuals have the opportunity to attain the highest possible standard of health.

Future research should focus on evaluating scalable, context-specific interventions that integrate social policy, community engagement, and health system strengthening to generate robust evidence on effective strategies for promoting population health and reducing health inequities globally.

Compliance with ethical standards

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Disclosure of Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper. The authors have no financial or personal relationships that could have inappropriately influenced the work reported in this manuscript.

Statement of Ethical Approval

This article is a narrative review and does not involve primary data collection from human participants or animals. As such, ethical approval was not required in accordance with institutional and international guidelines.

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