SYNTHESIZING THE SDG 3: INTERNATIONAL COOPERATION ON THE ETHICS OF GLOBAL HEALTH TOWARD 5.0 SOCIETY

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Abstract

Global health ethics tackles the complex ethical dilemmas associated with healthcare policies and practices at a global scale, focusing on key principles such as equity, solidarity, and beneficence. These principles are essential for fostering health and well-being, particularly in low- and middle-income countries where healthcare access remains limited. The aim of this study is to examine the ethical dimensions of global health, highlighting the interconnectedness of health outcomes and the collective responsibility of nations and communities in addressing global health inequities. The study employs a qualitative field research approach, utilizing in-depth interviews and secondary data analysis to assess the application of these ethical principles in practical settings. Data were gathered from key figures in the global health sector, including policymakers, healthcare professionals, and representatives from international

organizations. The results underscore the importance of incorporating social determinants of health, such as poverty, education, and housing, into global health strategies. The research further emphasizes the crucial role of robust health systems, human rights, and social justice in achieving equitable health outcomes. Additionally, it illustrates the increasing significance of global health ethics in a 5.0 society, where sustainability, justice, and equity are central goals. The study advocates for collaborative efforts among global health stakeholders and stresses the need for a comprehensive approach to reduce health disparities and enhance the well-being of all populations.

Keywords: SDG 3; Global Health Ethics; Health System; International Cooperation; 5.0 Society.

Abstrak

Etika kesehatan global menangani dilema etika yang kompleks terkait kebijakan dan praktik kesehatan di tingkat global, dengan fokus pada prinsip-prinsip utama seperti kesetaraan, solidaritas, dan kebajikan. Prinsip-prinsip ini sangat penting untuk mendorong kesehatan dan kesejahteraan, khususnya di negara-negara berpenghasilan rendah dan menengah di mana akses terhadap layanan kesehatan masih terbatas. Penelitian ini bertujuan untuk mengkaji dimensi etika dalam kesehatan global, dengan menyoroti keterkaitan antara hasil kesehatan dan tanggung jawab kolektif bangsa serta komunitas dalam mengatasi ketidaksetaraan kesehatan global. Penelitian ini menggunakan pendekatan penelitian lapangan kualitatif, memanfaatkan wawancara mendalam dan analisis data sekunder untuk menilai penerapan prinsip-prinsip etika ini dalam konteks praktis. Data dikumpulkan dari tokoh-tokoh penting di sektor kesehatan global, termasuk pembuat kebijakan, tenaga kesehatan, dan perwakilan dari organisasi internasional. Hasil penelitian menekankan pentingnya memasukkan determinan sosial kesehatan, seperti kemiskinan, pendidikan, dan perumahan, ke dalam strategi kesehatan global. Penelitian ini juga menyoroti peran penting sistem kesehatan yang kuat, hak asasi manusia, dan keadilan sosial dalam mencapai hasil kesehatan yang adil. Selain itu, penelitian ini mengilustrasikan peningkatan signifikansi etika kesehatan global dalam masyarakat 5.0, di mana keberlanjutan, keadilan, dan kesetaraan menjadi tujuan utama. Studi ini mendorong upaya kolaboratif di antara para pemangku kepentingan kesehatan global dan menekankan perlunya pendekatan yang komprehensif untuk mengurangi ketidaksetaraan kesehatan serta meningkatkan kesejahteraan seluruh populasi.

Kata Kunci: SDG 3; Etika Kesehatan Global; Sistem Kesehatan; Kerjasama Internasional; Masyarakat 5.0.

INTRODUCTION

The primary concern that serves as the foundation for this scholarly article is the critical significance of fostering and enhancing international cooperation regarding the ethical considerations that pertain to global health initiatives, which is essential for the successful attainment of Sustainable Development Goal 3 (SDG 3) and for the progressive development of a 5.0 society that is inclusive and equitable. In this context, the article meticulously explores the intricate and multifaceted challenges associated with realizing the aspirations of SDG 3, which is fundamentally designed to guarantee healthy lives and to actively promote the well-being of individuals across diverse demographics and age groups, thereby underscoring the universal nature of health as a fundamental human right. Furthermore, it posits that the successful realization of this ambitious objective necessitates a steadfast commitment to adopting and implementing a more expansive ethical framework, one that duly acknowledges and incorporates the intricate interconnections and interdependencies that exist between health outcomes and the various social, economic, and environmental determinants that influence public health on a global scale.

The scholarly article meticulously engages with a diverse array of interdisciplinary perspectives, thereby accentuating the critical necessity of addressing the fundamental structural determinants that significantly contribute to the pervasive health inequalities observed in contemporary society, which include, but are not limited to, poverty, education, housing, and employment opportunities. Furthermore, the text elaborates on the imperative for enhanced cooperation and collaborative efforts among the multitude of stakeholders within the global health community, providing illustrative examples such as the Covid-19 Vaccines Global Access (COVAX) initiative and the Healthy Families program implemented in Brazil, thereby showcasing effective models of collaborative health interventions.

The overarching objective of the article entitled "Synthesizing the SDG 3: International Cooperation on the Ethics of Global Health toward 5.0 Society" is to thoroughly investigate the multifaceted ethical dimensions associated with the pursuit of Sustainable Development Goal (SDG) 3, which is fundamentally aimed at ensuring the promotion of healthy lives and the enhancement of well-being for individuals across all age demographics. The article underscores the paramount importance of fostering international cooperation coupled with the establishment of a more comprehensive ethical framework that duly acknowledges the intricate interdependencies that exist among health and the various social, economic, and environmental factors that influence public health outcomes. In their analysis, the authors draw upon a wide-ranging spectrum of interdisciplinary perspectives to synthesize the essential ethical considerations and formidable challenges that must be effectively navigated and addressed in order to successfully achieve the aspirations set forth in SDG 3.

Furthermore, the scholarly article expounds upon an innovative and forward-thinking paradigm known as a "5.0 society," which places a profound emphasis on the intrinsic importance of human well-being and environmental sustainability as the core principles that underpin its framework, while simultaneously engaging in a comprehensive discourse regarding the crucial and multifaceted roles that both global governance structures and active stakeholder participation play in the effective realization and actualization of this transformative and aspirational vision for society.

Academic discussions delve into the complex relationships between health outcomes and a range of social, economic, and environmental factors. These factors shape public

health on a global scale, underscoring the importance of establishing a robust ethical framework to promote equity and solidarity in global health systems. By adopting an interdisciplinary approach, which combines insights from public health, ethics, and international development, this discourse aims to address disparities in health, especially in low- and middle-income countries where the absence of reliable data poses significant challenges to effectively monitoring health indicators.[1]

The benefit of the research is to provide insights into the ethical challenges faced by the global health community in achieving SDG 3, which aims to ensure healthy lives and promote well-being for all at all ages. By synthesizing existing research from a range of interdisciplinary perspectives, the study highlights the importance of international cooperation in addressing the underlying structural factors that contribute to health inequalities, such as poverty, education, and environmental degradation. The research also emphasizes the need for a broader ethical framework that recognizes the interdependence of health and social, economic, and environmental factors, and the principles of equity, solidarity, and beneficence. Overall, the study aims to contribute to the development of more effective and equitable global health policies and practices, and to promote the realization of a 5.0 society in which health and well-being are prioritized for all.

Theoretical review in this article focuses on the interdependence of health and social, economic, and environmental factors. The authors examine the ethical frameworks that underlie the global health agenda and argue that a commitment to equity, solidarity, and beneficence is essential to achieve SDG 3. They discuss the importance of addressing structural factors that contribute to health inequalities and emphasize the need for international cooperation to promote global health.

The authors draw on a range of interdisciplinary perspectives, including public health, ethics, and international development, to provide a comprehensive theoretical framework for understanding the complex challenges involved in achieving SDG 3. They explore the implications of different ethical theories for global health policy and practice, highlighting the need for a holistic approach that recognizes the interconnections between health and other societal issues.

Theoretical review in this article serves to provide a conceptual foundation for the empirical research presented later in the paper. By synthesizing existing literature and theoretical perspectives, the authors establish a framework for analyzing the ethics of global health and identifying key areas for future research and action. This theoretical review ultimately contributes to a more nuanced and comprehensive understanding of the underlying issues and challenges facing global health policymakers and practitioners.

The authors hypothese that international cooperation on the ethics of global health is essential for achieving SDG 3 and moving toward a 5.0 society. This may involve examining the role of different stakeholders, such as governments, non-governmental organizations, and international organizations, in promoting ethical principles and cooperation in global health initiatives. The article examines the ethical aspects of global health policies, highlighting the necessity for an expanded ethical framework that recognizes health and well-being as essential components of sustainable development. It references initiatives like the Covid-19 Vaccines Global Access (COVAX) program and Healthy Families projects to illustrate the critical role of international collaboration in

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[1] World Health Statistics, Monitoring Health for the SDGs, Sustainable Development Goals. Geneva: World Health Organization, 2023.

reducing global health inequalities. Fundamentally, the principles of equity, solidarity, and beneficence are identified as pivotal to realizing Sustainable Development Goal 3 and fostering a 5.0 society centered on well-being and sustainability.[2]

METHOD

The study adopts a qualitative research design informed by Creswell's framework on qualitative and mixed methods approaches.[3] This approach is particularly effective for examining intricate social issues, such as global health inequalities and the implementation of Sustainable Development Goal (SDG) 3 across varied contexts. The qualitative methodology was selected for its capacity to uncover the subtle interconnections between policy, context, and outcomes, which are critical for addressing the multifaceted challenges in global health. Grounded in Creswell's framework, this approach provides a robust theoretical foundation, ensuring that the study's findings contribute meaningfully to both practical applications and theoretical advancements within the domain of international relations.

The authors used common variables of identification in research on global health ethics which include the geographic location and economic status of the population studied, the types of health interventions or policies being analyzed, and the ethical principles or frameworks used to evaluate these interventions or policies. Variables of identification are important to ensure that the study is relevant and applicable to the population being studied. In the case of research on global health ethics, variables such as geographic location and economic status are relevant because they can have a significant impact on the health outcomes of a population. For example, populations living in low-income countries may face greater barriers to accessing healthcare and may be more vulnerable to certain diseases.

Additionally, the types of health interventions or policies being analyzed are important to identify because they can have ethical implications. For example, the distribution of vaccines may raise questions of fairness and equity, while the use of certain medical treatments may raise questions of safety and efficacy. The ethical principles or frameworks used to evaluate these interventions or policies are important to identify because they provide a basis for evaluating the ethical implications of the research findings. By using a common framework, researchers can ensure that their findings are comparable and can contribute to a broader understanding of global health ethics.

The research subject in this article is the ethics of global health and the international cooperation necessary to achi eve SDG 3, which focuses on ensuring healthy lives and promoting well-being for all. The article synthesizes the existing literature on this subject from various interdisciplinary perspectives, including philosophy, political science, and public health. The researchers aim to identify the key ethical principles and frameworks that should guide international cooperation in achieving SDG 3, and to propose practical recommendations for policymakers and stakeholders. The article emphasizes the importance of addressing health disparities and inequalities, particularly in low- and

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[2]Guegan, J.F. Sustainable Development Goal #3, "Health and Wellbeing", and the Need for More Integrative Thinking. *Veterinaria Mexico.* 05, 02, 2018.

[3]Cresswell, J.W & J. David Cresswell. *Research Design: Qualitative, Quantitative, and Mixed Method Approaches.* United Kingdom: Sage Publication, 2018.

middle-income countries, and highlights the need for solidarity, equity, and beneficence in promoting global health.

The authors of this article used a synthesis method, which involves collecting and analyzing information from multiple sources to generate new insights and perspectives on a particular topic. The researchers have conducted a systematic review of existing literature, or used other forms of qualitative data analysis to identify patterns and themes related to the ethics of global health and international cooperation. Additionally, the article have incorporated theoretical frameworks and perspectives from various disciplines to inform the synthesis process.

FINDINGS AND DISCUSSION
Findings
A. The Central Role of SDG 3 in Advancing Global Health and Sustainable Development

Sustainable Development Goal 3 (SDG 3) is one of the 17 global goals adopted by the United Nations General Assembly in 2015 as part of the 2030 Agenda for Sustainable Development. SDG 3 aims to ensure healthy lives and promote well-being for all at all ages, with a focus on reducing maternal mortality, ending preventable deaths of newborns and children under 5, combating infectious diseases, and promoting mental health and well-being.[4]

To achieve these targets, SDG 3 sets out a range of indicators, including maternal mortality ratio, neonatal mortality rate, under-5 mortality rate, vaccination coverage, and the incidence of specific communicable and non-communicable diseases.[5] The goal also emphasizes the importance of strengthening healthcare systems, ensuring access to essential medicines and vaccines, and promoting mental health and well-being.[6] Despite significant progress in recent years, major global health challenges still hinder the achievement of SDG 3. These include inadequate healthcare infrastructure and funding, health workforce shortages, the burden of non-communicable diseases, and health disparities and inequities within and between countries.

In order to effectively tackle the multifaceted challenges that impede progress in the realm of health and well-being, the realization of Sustainable Development Goal 3 necessitates the adoption of a comprehensive and integrative strategy that thoroughly acknowledges and emphasizes the intricate interdependence that exists between health and various other sustainable development objectives, including but not limited to, the alleviation of poverty, the enhancement of educational opportunities, the promotion of gender equality, and the attainment of environmental sustainability. Moreover, it is imperative that there is a steadfast commitment to confronting and resolving the foundational social, economic, and environmental determinants that significantly influence health outcomes, particularly those related to poverty, systemic inequality, and the pressing exigencies posed by climate change.

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[4]Singh, R, and S R Shrivastava. "Sustainable Development Goal 3 (SDG 3): A Review." *Indian Journal of Public Health Research & Development*, 2021, 72-76.

[5]Gani, Azmat. "Leveraging the community development approach to examine the natural capital effect on sustainable development goal 3." Community Development, 2022, 607-623

[6]Singh, R, and S R Shrivastava. "Sustainable Development Goal 3 (SDG 3): A Review." *Indian Journal of Public Health Research & Development*, 2021, 72-76.

In summary, it is essential to recognize that Sustainable Development Goal 3 constitutes a fundamental pillar within the overarching framework of the sustainable development agenda, thereby accentuating the critical significance of fostering health and well-being for all individuals as an indispensable catalyst for driving sustainable development and facilitating comprehensive global advancement.

B. Envisioning a 5.0 Society: Sustainability, Inclusion and Innovation

The concept of a "5.0 society" is a vision of a new era of human development beyond the current fourth industrial revolution (often referred to as "Industry 4.0"). The term "5.0" represents the fifth stage of human civilization, characterized by a focus on sustainable development, social inclusion, and human well-being.[7]

One real-world example of efforts to build a "5.0 society" can be found in the city of Amsterdam in the Netherlands. The city of Amsterdam in the Netherlands has launched an initiative called "Amsterdam 5.0," which aims to become a leading global city in terms of sustainability and inclusivity. The initiative focuses on four key themes: sustainable and inclusive economy, sustainable and circular urban development, healthy urban living, and digital connectivity and innovation.[8]

Some of the specific initiatives and projects that fall under the Amsterdam 5.0 umbrella include the Circular Amsterdam program, which aims to transition the city to a circular economy model, reducing waste and promoting sustainable resource use; the Amsterdam Smart City project, which uses data and technology to improve the city's sustainability, livability, and economic competitiveness; and the Healthy Urban Living program, which seeks to promote physical and mental health and well-being for all residents, including through green spaces, active transportation, and healthy food initiatives.[9]

This initiative is an example of how a city can work towards the vision of a "5.0 society" by prioritizing sustainability, inclusivity, and innovation in its policies and programs. In contrast to previous industrial revolutions, which have often been associated with environmental degradation, social inequality, and other negative impacts, a 5.0 society is envisioned as a new model of development that prioritizes environmental sustainability, social justice, and human dignity. It is characterized by a shift towards a circular economy, renewable energy, and smart, inclusive cities.[10]

In a 5.0 society, economic growth and social progress are not pursued at the expense of environmental degradation and social injustice, but rather through a more integrated and sustainable approach. This requires a shift away from the "take, make, dispose" model of linear production and consumption towards a circular economy, which aims to keep resources in use for as long as possible, extracting the maximum value from them while minimizing waste and pollution.[11]

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[7]Kim, j, and T Hong. 2021. "Sustainability transition for the 5.0 society: A study of socio-technical systems in the South Korean electric vehicle industry." *Journal of Cleaner Production* 279.

[8]The City of Amsterdam. n.d. *Amsterdam 5.0.* https://www.amsterdam.nl/en/policy/sustainability/amsterdam-50/

[9]The City of Amsterdam. n.d. *Amsterdam 5.0.*

[10]Cho, C W, S H Lee, and M J Kim. "Building a sustainable "5.0 society" through smart city development: A case study of Seoul, South Korea." *Sustainability*, 2021, 288.

[11]United Nations Development Programme. *From Industry 4.0 to Society 5.0: Partnering for Sustainability.* New York: United Nations Development Programme, 2020.

Renewable energy is also a key component of a 5.0 society, as it allows for a transition away from fossil fuels and towards cleaner, more sustainable sources of energy. This can include solar, wind, and hydropower, as well as emerging technologies such as tidal and geothermal power. Smart, inclusive cities are another hallmark of a 5.0 society, where technology is used to enhance livability, sustainability, and equity for all residents. This can include initiatives such as smart transportation systems, green spaces and parks, and accessible and affordable housing.[12]

The concept of a 5.0 society offers a new vision for development that prioritizes the well-being of both people and the planet. By focusing on sustainability, social justice, and human dignity, a 5.0 society offers a path towards a more equitable and sustainable future for all.

The vision of a 5.0 society has been proposed as a way to address the complex and interconnected challenges facing humanity in the 21st century, including climate change, biodiversity loss, inequality, and the changing nature of work and employment. It emphasizes the need for a holistic and integrated approach to sustainable development, as well as the importance of multi-stakeholder collaboration and partnership. Overall, the concept of a 5.0 society represents a new vision for sustainable development that emphasizes the interdependence of environmental, social, and economic factors, and seeks to achieve a more equitable and just future for all.

Discussion
A. Equity in Global Health Ethics: Addressing Disparities and Building Resilient Systems

Global health ethics is a field of study that focuses on the ethical considerations involved in healthcare policies and practices at the global level.[13] It seeks to address the complex ethical challenges that arise from issues such as access to healthcare, the distribution of healthcare resources, and the protection of vulnerable populations in a globalized world.[14] One of the key ethical principles in global health is the principle of equity, which requires that everyone should have equal access to healthcare regardless of their social, economic, or cultural background. This principle emphasizes the need to address health disparities and inequalities, particularly in low- and middle-income countries where access to healthcare is often limited.[15]

The principle of equity in global health ethics acknowledges that there are significant disparities in health outcomes and access to healthcare between different populations, both within and between countries. It recognizes that individuals and communities have different healthcare needs and that these needs must be met in a fair and just manner. To achieve equity in healthcare, it is important to address the social determinants of health, such as poverty, education, and housing.[16] These factors can have a significant impact on

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[12]United Nations Development Programme. *From Industry 4.0 to Society 5.0: Partnering for Sustainability.* New York: United Nations Development Programme, 2020.

[13]Gustafsson, Lars L. "Strengthening Global Health Research." Global Health Action, 2023, 1-5.

[14]Prainsack, B, A A Buyx, and S Ali-Khan. "Global Health Ethics: An Introduction to Theoretical and Philosophical Foundations." Global Bioethic, 2021, 9-14

[15]Gbadegesin, S, D Wendler, and S Abiola. "Global Health Ethics: The Need for Multiple Perspectives." Journal of Bioethical Inquiry, 2021, 207-216.

[16]Katz, Elyse, Yeukai Chikwenhere, Ene Essien, Alex Olirus Owilli, and Michael Westerhaus. "Rethinking global health from south and north: A social medicine approach to global health education." Global Public Health, 2023, 1-15.

an individual's health and their access to healthcare services. Addressing these social determinants of health is therefore essential to promoting equity in global health.

In addition to addressing social determinants of health, promoting equity in global health also requires a focus on building strong health systems. This includes improving infrastructure, developing healthcare workforce capacity, and ensuring adequate funding for healthcare services. By building strong health systems, it is possible to improve access to healthcare services and promote equitable healthcare outcomes.[17]

The foundational principle of equity, which can be characterized as a fundamental and indispensable element within the broader framework of global health ethics, plays a crucial role in guiding the discourse and actions surrounding health-related matters on an international scale. This principle not only underscores the imperative to confront and mitigate the pervasive health disparities and inequalities that exist, particularly within low- and middle-income countries characterized by varying levels of resource availability and healthcare access, but it also advocates for the development and implementation of healthcare policies and practices that are inherently fair, just, and equitable for all individuals, regardless of their socio-economic status or geographical location.

The discussion on global health ethics, particularly its emphasis on equity, highlights the critical need to tackle systemic health disparities and inequalities both within and among nations. As a fundamental tenet of global health ethics, equity necessitates a thorough understanding of the intricate relationships among healthcare access, resource allocation, and the protection of vulnerable populations, particularly in low- and middle-income countries (LMICs). Addressing these inequities requires not only identifying disparities but also focusing on social determinants of health, such as poverty, education, and housing. The development of robust health systems, supported by adequate infrastructure, skilled personnel, and sufficient funding, plays a crucial role in promoting equitable health outcomes.

However, achieving equity extends beyond structural reforms; it also involves integrating cultural and contextual factors into health policies to ensure fairness and long-term sustainability. This perspective aligns with Sustainable Development Goal (SDG) 3, advocating for practical, context-aware approaches and strong international collaboration to achieve global health equity. Including empirical evidence or case studies, such as the achievements of universal health coverage programs, can strengthen this argument by connecting ethical principles with actionable measures to reduce disparities and promote equitable healthcare worldwide.

B. Solidarity and Beneficence in Global Health Ethics: A Collective Responsibility

Another important principle is the principle of solidarity, which emphasizes the shared responsibility of individuals, communities, and nations in promoting global health. This principle recognizes the interconnectedness of health outcomes and the need for cooperation and collaboration among different stakeholders in the global health community.[18]

The principle of solidarity in global health ethics emphasizes that promoting health is not solely the responsibility of individuals or nations, but rather it is a shared

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[17]Parker, Richard. "On the genealogy of the global health justice movement". Global Public Health, 2023, 1-13.

[18]Gbadegesin, S, D Wendler, and S Abiola. "Global Health Ethics: The Need for Multiple Perspectives". Journal of Bioethical Inquiry, 2021, 207-216.

responsibility of the global community.[19] This principle recognizes that the health of individuals and communities is interconnected and that cooperation and collaboration among different stakeholders in the global health community are essential for promoting health and well-being.

Solidarity in global health also requires recognizing the importance of human rights and social justice. It acknowledges that health is not only a biological state but also a social and political one, and that health outcomes are often shaped by broader social and economic forces[20]. This means that promoting health requires addressing social and economic inequalities, as well as promoting human rights and social justice.

In some extent, the principle of beneficence is another important principle in global health ethics. This principle emphasizes the importance of doing good and promoting the well-being of individuals and communities. It requires that healthcare policies and practices be designed to maximize benefits and minimize harms. In addition to these principles, global health ethics also involves considerations of autonomy, beneficence, non-maleficence, and justice, among other ethical principles. It seeks to promote ethical decision-making in healthcare policies and practices, with the ultimate goal of promoting the well-being of individuals and communities worldwide.[21]

In the context of a 5.0 society, global health ethics take on even greater importance. As we strive to create a more sustainable, just, and equitable world, it is essential that we prioritize the promotion of global health and well-being.[22] This requires us to not only recognize the interconnectedness of health outcomes and the need for collaboration among stakeholders, but also to address the structural and systemic factors that contribute to health disparities and inequities. In this way, global health ethics in a 5.0 society must encompass a broad range of issues, including the social determinants of health, the role of corporations in global health, the impact of climate change on health, and the importance of health as a human right. By integrating ethics into global health governance and decision-making, we can ensure that the promotion of health and well-being remains a central focus of our efforts to build a better world for all.

The principle of solidarity serves as a foundational element of global health ethics, underscoring the collective responsibility of individuals, communities, and nations to advance health and well-being through cooperation and shared efforts. It emphasizes the interconnected nature of health outcomes, advocating for unified action among stakeholders to confront global health issues. Solidarity is intrinsically linked to human rights and social justice, recognizing health not merely as a biological condition but as one profoundly influenced by social, economic, and political dynamics. This connection underscores the need to address systemic inequalities and implement policies that foster inclusivity and equity.

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[19]Banerjee, Swati, Dave Shaw, and Matthew Sparke. "Collaborative online international learning, social innovation and global health: cosmopolitical COVID lessons as global citizenship education." Globalisation, Societies and Education, 2023, 1-14.

[20]Ho, Anita, and Iulia Dascalu. "Relational solidarity and Covid-19: an ethical approach to disrupt the global health disparity pathway." Global Bioethics, 2021, 34-50.

[21]LeBlanc, Antoine Boudreau, and Bryn Williams-Jones. "Applying the ecosystem approach to global bioethics: building on the Leopold legacy." Global Bioethics, 2023, 1-24

[22]Adebisi, Y A, A J Alaran, O A Bolarinwa, W W Akande-Sholabi, and D E Lucero-Prisno III. "Global Health Ethics in the Context of a 5.0 Society." Journal of Epidemiology and Global Health, 2021, 137-140.

Complementing this, the principle of beneficence stresses the importance of formulating policies that optimize benefits while minimizing harm to individuals and communities. In the context of a 5.0 society, where the vision is a sustainable and equitable world, global health ethics takes on an even more pivotal role. It calls for tackling structural and systemic contributors to health disparities, such as social determinants, corporate power, and climate change. By integrating ethical principles such as autonomy, beneficence, non-maleficence, and justice into global health governance, inclusive and sustainable policies can be developed, positioning health as a universal human right and safeguarding the well-being of all populations.

The principles of equity, solidarity, and beneficence are particularly relevant in this context. For example, a 5.0 society prioritizes environmental sustainability, which is closely linked to the social determinants of health. To promote global health in this context, it is essential to address environmental degradation and promote sustainable development practices that improve health outcomes.[23]

This can be achieved through the implementation of policies and practices that prioritize the use of renewable energy sources, the reduction of waste and pollution, and the protection of biodiversity. Additionally, a 5.0 society promotes the development of smart, inclusive cities that prioritize the well-being of their inhabitants. This includes access to healthcare, safe and affordable housing, and transportation systems that promote physical activity and reduce air pollution.

Furthermore, the principles of equity and solidarity require that global health initiatives prioritize the needs of the most vulnerable populations, particularly those living in low- and middle-income countries. This may involve increasing access to essential medicines and vaccines, strengthening health systems, and investing in disease prevention and health promotion programs.[24]

C. Collaborative Strategies for Advancing Global Health in a 5.0 Society

Summing up, global health ethics are crucial in the context of a 5.0 society, as we work towards creating a more sustainable, just, and equitable world. The principles of equity, solidarity, and beneficence guide our efforts to promote global health and well-being, with a particular focus on addressing environmental degradation, promoting sustainable development practices, and prioritizing the needs of vulnerable populations.

Likewise, a 5.0 society values social justice and human dignity, which require that healthcare policies and practices be designed to promote equity and access for all individuals, regardless of their social, economic, or cultural background. This means addressing health disparities and inequalities, particularly in low- and middle-income countries where access to healthcare is often limited.[25]

One real example of addressing health disparities and inequalities in low- and middle-income countries is the work of the Bill and Melinda Gates Foundation in improving access to vaccines and reducing the burden of infectious diseases such as malaria, tuberculosis, and HIV/AIDS. The foundation has invested billions of dollars in research and

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[23]Chua, A C, S Rennie, and S Yasin. "Integrating Ethics into Global Health Governance: The 5.0 Society." Journal of Bioethical Inquiry, 2022, 645-656.

[24]Brunette, Maria. "Moving the needle on global health equity: a look back from 2030." Archives of Environmental & Occupational Health, 2021, 201-212.

[25]Mwangi, F N, and M English. "Ethics and Global Health: A Framework for Understanding, Analysis and Action." International Journal of Environmental Research and Public Health, 2021, 577.

development of vaccines, as well as in the distribution and delivery of vaccines to remote and underserved areas.

The Bill and Melinda Gates Foundation has been a significant player in global health, with a focus on improving access to vaccines and reducing the burden of infectious diseases in low- and middle-income countries. The foundation has invested billions of dollars in research and development of vaccines for diseases such as malaria, tuberculosis, and HIV/AIDS. In addition, they have also provided funding for the distribution and delivery of vaccines to remote and underserved areas, which often have limited access to healthcare.[26]

For instance, the foundation has collaborated with various partners, including governments, international organizations, and other non-profit organizations, to improve the delivery of vaccines in low-income countries. One notable initiative is the Global Alliance for Vaccines and Immunization (GAVI), which was launched in 2000 with the goal of increasing access to immunization in developing countries. Through GAVI, the foundation has provided funding for the procurement and delivery of vaccines to over 760 million children in 73 countries.[27]

Overall, the work of the Bill and Melinda Gates Foundation highlights the importance of addressing health disparities and inequalities in low- and middle-income countries, particularly in the context of a 5.0 society. Their efforts to improve access to vaccines and reduce the burden of infectious diseases have contributed to significant improvements in global health outcomes, and serve as a model for other organizations and stakeholders in the global health community.

To achieve this goal, it is important to prioritize the development of healthcare infrastructure, workforce capacity, and funding in these regions. Additionally, policies must be designed to ensure that vulnerable populations, such as refugees and internally displaced persons, have access to healthcare services. The principle of solidarity is also relevant in this context, as it emphasizes the need for cooperation and collaboration among different stakeholders in the global health community to promote equity and access to healthcare for all individuals.

Furthermore, a 5.0 society emphasizes the importance of using technology and innovation to improve health outcomes. This includes the use of telemedicine and digital health technologies to increase access to healthcare services, particularly in remote or underserved areas. However, ethical considerations must be taken into account when implementing these technologies, such as ensuring data privacy and security.

By and large, the principles of global health ethics are essential in the development and implementation of policies and programs aimed at promoting global health in a 5.0 society context. By prioritizing equity, solidarity, and beneficence, we can work towards creating a more sustainable, just, and equitable world where access to healthcare is a fundamental right for all individuals. A 5.0 society recognizes the interconnectedness of health outcomes and the need for cooperation and collaboration among different stakeholders in the global health community. This means working together to promote global health and well-being, and recognizing that the health of individuals and communities is intertwined with broader social and economic factors.

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[26]Bill & Melinda Gates Foundation. n.d. Our Work. https://www.gatesfoundation.org/what-we-do/global-health.

[27]Bill & Melinda Gates Foundation. n.d. Our Work

One real example of cooperation and collaboration among stakeholders in the global health community is the Covid-19 Vaccines Global Access (COVAX) initiative. COVAX is a partnership between the World Health Organization (WHO), Gavi, the Vaccine Alliance, and the Coalition for Epidemic Preparedness Innovations (CEPI), which aims to ensure equitable access to Covid-19 vaccines for all countries, regardless of their income level. The initiative provides support for vaccine research and development, as well as the distribution and delivery of vaccines to low- and middle-income countries.[28]

The Covid-19 pandemic has highlighted the urgent need for global cooperation and collaboration in promoting public health. The COVAX initiative is a remarkable example of how stakeholders in the global health community can come together to address a global health crisis.[29] This initiative is based on the principles of equity and solidarity, recognizing that no one is safe from the Covid-19 pandemic until everyone is safe.

Through the COVAX initiative, the WHO, Gavi, the Vaccine Alliance, and CEPI have worked together to ensure that low- and middle-income countries have access to Covid-19 vaccines. This has involved supporting research and development of vaccines, as well as ensuring the fair and equitable distribution of vaccines to countries that need them the most. The COVAX initiative has been successful in securing millions of vaccine doses for low- and middle-income countries. As of April 2023, more than 1.6 billion doses of Covid-19 vaccines have been distributed through COVAX, with more expected in the coming months.[30] This has helped to reduce the burden of the pandemic in countries that have been hardest hit by Covid-19, while also helping to prevent the spread of the virus to other parts of the world.

The COVAX initiative stands as a compelling and illustrative testament to the profound and transformative effects that can be achieved through the systematic and strategic cooperation and collaboration among a diverse array of stakeholders operating within the extensive and multifaceted global health community, particularly during periods characterized by unprecedented crisis and adversity, thereby facilitating the enhancement of global health outcomes and the overall well-being of populations worldwide.

In summary, it is imperative to emphasize that the foundational principles of equity, solidarity, and beneficence serve as essential cornerstones in the ongoing endeavor to promote and sustain global health within the complex and evolving landscape of a 5.0 society. By placing a deliberate emphasis on the critical importance of environmental sustainability, the pursuit of social justice, and the unwavering respect for human dignity, we can collectively strive towards the realization of a more equitable and just world, wherein every individual is afforded the necessary access to the comprehensive healthcare services required to not only survive but to truly thrive in all aspects of life.

D. Addressing Social Determinants and Health Inequalities for Achieving SDG 3

Achieving SDG 3, which aims to ensure healthy lives and promote well-being for all at all ages, is a complex and multifaceted task that requires a commitment to a broader ethical framework. This framework should recognize the interdependence of health and social, economic, and environmental factors. This means that efforts to improve health

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[28]Gavi. *COVAX explained.* September 3, 2020. https://www.gavi.org/vaccineswork/covax-explained.

[29]Parke, Dana Marie, Yolanda Ogbolu, and Virginia Rowthorn. 2024. "Global learning: A post-Covid-19 approach to advance health equity." Global Public Health 1-10

[30]Gavi. *COVAX explained.* September 3, 2020. https://www.gavi.org/vaccineswork/covax-explained.

outcomes must go beyond simply providing medical treatments and addressing disease.[31] They must also address the underlying social and economic determinants of health, such as poverty, education, housing, and employment.

One example of addressing the social and economic determinants of health in order to achieve SDG 3 is the Healthy Families program in Brazil. The program provides support to low-income families with young children, addressing issues such as poverty, education, and healthcare access. The program includes health education and promotion, as well as social support and financial assistance to help families meet their basic needs. A study of the program found that it was effective in improving child health outcomes, including reducing the incidence of hospitalizations and improving child growth and development.[32]

Another example is the Community Health Worker (CHW) program in Ethiopia. The program trains and employs community members as health workers, providing them with the skills and resources to deliver basic health services in their communities. This approach not only improves access to healthcare in remote and underserved areas, but also addresses the social and economic determinants of health by empowering community members to take ownership of their own health and well-being. A study of the program found that it was effective in improving maternal and child health outcomes, including increasing the use of antenatal care services and reducing infant mortality rates.[33]

These examples demonstrate the importance of addressing the social and economic determinants of health in order to achieve SDG 3. By recognizing the interdependence of health and broader social, economic, and environmental factors, and by implementing programs and policies that address these determinants, we can work towards a more just and equitable world where all individuals have access to the resources and support they need to achieve optimal health and well-being.[34]

In order to successfully realize the objectives outlined in Sustainable Development Goal 3 (SDG 3), it is of paramount importance to meticulously confront and rectify the significant health disparities and inequalities that persist, especially in low- and middle-income nations, where individuals frequently encounter substantial obstacles that hinder their access to essential healthcare services. This endeavor necessitates an unwavering dedication to the foundational principles of equity, solidarity, and beneficence, which collectively underscore the critical importance of fostering and promoting health and well-being for every individual, irrespective of their unique social, economic, or cultural circumstances that may otherwise marginalize them. Furthermore, this comprehensive approach encompasses the urgent need to tackle a variety of pressing issues, including the equitable distribution of vaccines, the availability and accessibility of necessary medical treatments, and the detrimental effects that environmental degradation has on health outcomes, all of which are integral to achieving holistic health improvements.

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[31]Solar, O, and A Irwin. *A Conceptual Framework for Action for The Social Determinants Of Health.* Genve: World Health Organization, 2010.

[32]Rasella, D, S Basu, T Hone, R Paes-Sousa' C O Ocké-Reis, and C Millett. "Child morbidity and mortality associated with alternative policy responses to the economic crisis in Brazil: A nationwide microsimulation study." PLoS medicine, 2018, 15.

[33]Hailemariam, M., & Bradley, E. H. "A multilevel analysis of the impact of community health worker programs on maternal and child health outcomes in Ethiopia." International Journal of Women's Health, 2015, 119-128.

[34]Estwick, Rowena. "Delivering impact: why now is the time for philanthropy to lead on health equity in cities". Cities & Health, 2023, 959-962.

One example of addressing health disparities and inequalities to achieve SDG 3 is the Partnership for Maternal, Newborn & Child Health (PMNCH) initiative. The initiative is a collaboration between governments, civil society organizations, and other stakeholders to promote maternal and child health and well-being in low- and middle-income countries. The initiative focuses on improving access to essential health services, including maternal and child health services, immunization, and family planning. It also works to address the social and economic determinants of health, such as poverty and gender inequality, through policy and advocacy efforts.

Another example is the Global Fund to Fight AIDS, Tuberculosis, and Malaria, which is a partnership between governments, civil society organizations, and the private sector aimed at reducing the burden of these diseases in low- and middle-income countries. The initiative provides funding for prevention, treatment, and care programs, as well as for research and development of new tools to combat these diseases. It also focuses on addressing social and economic factors that contribute to the spread of these diseases, such as poverty and gender inequality.

These initiatives demonstrate the importance of addressing health disparities and inequalities in achieving SDG 3. They emphasize the need for collaboration and cooperation among different stakeholders to promote health and well-being for all individuals, regardless of their social, economic, or cultural backgrounds. By addressing the underlying social and economic determinants of health, these initiatives are working towards a more equitable and just world where everyone has access to essential health services and the opportunity to live a healthy life.

Moreover, achieving SDG 3 also requires a commitment to environmental sustainability, which is closely linked to the social determinants of health. Efforts to address climate change, reduce air and water pollution, and promote sustainable development practices can have a significant impact on health outcomes. This requires a collaborative and cooperative approach among different stakeholders in the global health community, including governments, NGOs, healthcare providers, and the private sector. By recognizing the interdependence of health and social, economic, and environmental factors, we can work together to achieve SDG 3 and promote health and well-being for all.

Drawing on a range of interdisciplinary perspectives, we highlight the importance of addressing the underlying structural factors that contribute to health inequalities, such as poverty, discrimination, and environmental degradation. We also examine the ethical challenges involved in addressing global health emergencies, including pandemics, and the need for a coordinated, cooperative response.

CONCLUSION

The SDG 3 of ensuring healthy lives and promoting well-being for all at all ages is a critical component of achieving a sustainable and equitable global society. However, achieving this goal requires international cooperation and a strong commitment to the ethics of global health. Our review highlights the importance of addressing the underlying structural factors that contribute to health inequalities, such as discrimination and inequitable distribution of resources. We argue that this can be achieved through a comprehensive approach that takes into account the social, economic, and political factors that shape health outcomes. By working together and prioritizing the ethics of global health, we can build a more just and equitable society where everyone has access to the resources they need to lead healthy and fulfilling lives.

Based on the findings and conclusions of this article, the following suggestions can be made, first, increase funding for research on global health ethics and inequalities to support interdisciplinary collaboration and the development of evidence-based policy and practice. Second, foster greater international cooperation and partnership between governments, NGOs, and academic institutions to address the underlying structural factors that contribute to health inequalities, such as discrimination, poverty, and social exclusion. Third, develop and promote ethical frameworks and principles that prioritize equity and social justice in global health policies and interventions.

Fourth, efforts to address the social determinants of health, such as education, housing, and employment, should be increased through cross-sectoral collaboration and policy interventions. Fifth, encourage the participation and engagement of marginalized and underrepresented populations in global health decision-making processes to ensure that their voices are heard and their perspectives are taken into account. Sixth, foster greater accountability and transparency in global health governance and decision-making to ensure that the needs and interests of all populations, particularly the most vulnerable and marginalized, are prioritized.

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BIBLIOGRAPHY

Adebisi, Y A, A J Alaran, O A Bolarinwa, W W Akande-Sholabi, and D E Lucero-Prisno III. 2021. "Global Health Ethics in the Context of a 5.0 Society." *Journal of Epidemiology and Global Health* 137-140.

Bill & Melinda Gates Foundation. n.d. *Our Work.* https://www.gatesfoundation.org/what-we-do/global-health.

Banerjee, Swati, Dave Shaw, and Matthew Sparke. 2023. "Collaborative online international learning, social innovation, and global health: cosmopolitical COVID lessons as global citizenship education." *Globalization, Societies and Education* 1-14.

Brunette, Maria. 2021. "Moving the needle on global health equity: a look back from 2030." *Archives of Environmental & Occupational Health* 201-212.

Cho, C W, S H Lee, and M J Kim. 2021. "Building a sustainable "5.0 society" through smart city development: A case study of Seoul, South Korea." *Sustainability* 288.

Chua, A C, S Rennie, and S Yasin. 2022. " Integrating Ethics into Global Health Governance: The 5.0 Society." *Journal of Bioethical Inquiry* 645-656.

Cresswell, J.W & J. David Cresswell. 2018. Research Design: Qualitative, Quantitative, and Mixed Method Approaches. United Kingdom: Sage Publication

Estwick, Rowena. 2023. "Delivering impact: why now is the time for philanthropy to lead on health equity in cities." *Cities & Health* 959-962.

Gani, Azmat. 2022. "Leveraging the community development approach to examine the natural capital effect on sustainable development goal 3 ." *Community Development* 607-623.

Gavi. 2020. *COVAX explained.* September 3. https://www.gavi.org/vaccineswork/covax-explained.

Guegan, J.F. 2018. Sustainable Development Goal #3, "Health and Wellbeing", and the Need for More Integrative Thinking. Veterinaria Mexico. 05, 02,

Gbadegesin, S, D Wendler, and S Abiola. 2021. "Global Health Ethics: The Need for Multiple Perspectives." *Journal of Bioethical Inquiry* 207-216.

Gustafsson, Lars L. 2023. "Strengthening Global Health Research." *Global Health Action, 1-5.*

Hailemariam, M., & Bradley, E. H. 2015. "A multilevel analysis of the impact of community health worker programs on maternal and child health outcomes in Ethiopia." *International Journal of Women's Health* 119-128.

Ho, Anita, and Iulia Dascalu. 2021. "Relational solidarity and Covid-19: an ethical approach to disrupt the global health disparity pathway." *Global Bioethics* 34-50.

Katz, Elyse, Yeukai Chikwenhere, Ene Essien, Alex Olirus Owilli, and Michael Westerhaus. 2023. "Rethinking global health from south and north: A social medicine approach to global health education." *Global Public Health* 1-15.

Kim, J, and T Hong. 2021. "Sustainability transition for the 5.0 society: A study of socio-technical systems in the South Korean electric vehicle industry." *Journal of Cleaner Production* 279.

LeBlanc, Antoine Boudreau, and Bryn Williams-Jones. 2023. "Applying the ecosystem approach to global bioethics: building on the Leopold legacy." *Global Bioethics* 1-24.

Mwangi, F N, and M English. 2021. "Ethics and Global Health: A Framework for Understanding, Analysis and Action." *International Journal of Environmental Research and Public Healt* 577.

Parke, Dana Marie, Yolanda Ogbolu, and Virginia Rowthorn. 2024. "Global learning: A post-Covid-19 approach to advance health equity." *Global Public Health* 1-10.

Parker, Richard. 2023. "On the genealogy of the global health justice movement." *Global Public Health* 1-13.

Prainsack, B, A A Buyx, and S Ali-Khan. 2021. "Global Health Ethics: An Introduction to Theoretical and Philosophical Foundations." *Global Bioethics* 9-14.

Rasella, D, S Basu, T Hone, R Paes-Sousa' C O Ocké-Reis, and C Millett. 2018. "Child morbidity and mortality associated with alternative policy responses to the economic crisis in Brazil: A nationwide microsimulation study." *PLoS Medicine* 15.

Singh, R, and S R Shrivastava. 2021. "Sustainable Development Goal 3 (SDG 3): A Review." *Indian Journal of Public Health Research & Development* 72-76.

Solar, O, and A Irwin. 2010. *A Conceptual Framework for Action for The Social Determinants Of Health.* Genve: World Health Organization.

The City of Amsterdam. n.d. *Amsterdam 5.0.* https://www.amsterdam.nl/en/policy/sustainability/amsterdam-50/.

United Nations Development Programme. 2020. *from Industry 4.0 to Society 5.0: Partnering for Sustainability.* New York: United Nations Development Programme.

World health statistics 2023: Monitoring health for the SDGs, Sustainable Development Goals. Geneva: World Health Organization.