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Exploring sustainable health financing strategies in humanitarian settings: Challenges, innovations and efforts towards Achieving Universal Health Coverage

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Abstract

Sustainable health financing is critical in humanitarian settings to ensure that the most vulnerable populations have access to necessary healthcare services. In crises such as conflicts, natural disasters, or prolonged emergencies, healthcare systems are often destabilized, leading to significant challenges in providing adequate care. This review explores innovative financing mechanisms designed to support health services in these contexts, focusing on their potential to achieve Universal Health Coverage (UHC). Key challenges include limited funding, high out-of-pocket costs, and the uneven distribution of healthcare resources. In response, emerging models such as impact bonds, Islamic social finance, disaster risk insurance, and digital financial solutions offer new approaches to mobilizing resources and sustaining health interventions. These strategies are essential to bridging gaps in healthcare access, promoting equity, and strengthening the resilience of health systems. Policy recommendations highlight the importance of integrating emergency and routine health services, engaging communities, and enhancing coordination among stakeholders. Strengthening health financing mechanisms is vital for long-term improvements in health outcomes, especially in fragile settings. This research underscores the need for sustainable, inclusive policies that bolster health systems in the face of humanitarian crises.

Keywords: Crisis; displaced; Emergency; Funding; governments; Health care; Systems

1. Introduction

With regards to humanitarian contexts, sustainable health financing is essential to guaranteeing that individuals most in need of medical attention receive timely and sufficient care [1, 2]. According to Salam et al. [3], in times of crisis like natural disasters, extended emergencies, or conflicts, the established healthcare systems sometimes fail or are seriously undermined. In order to address this, sustainable health financing creates long-term, robust funding sources that are flexible enough to adjust to the erratic nature of humanitarian emergencies.

To build a steady flow of funds, this strategy focuses on mobilizing a variety of financial resources, such as grants from the government, private sector contributions, and foreign assistance [4]. To optimize the use of few resources, it also places a strong emphasis on community involvement, local capacity building, and cost-efficient initiatives. In this way, sustainable health finance guarantees the continued availability of vital services such as immunizations, maternity and infant health care, and disease prevention even in the most difficult settings [5]. Additionally, it advances fairness by

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giving priority to the most marginalized people and encouraging cooperation between different stakeholders, such as international organizations, governments, and non-governmental organizations [6]. The goal of sustainable health finance in humanitarian contexts is to establish a strong framework that not only attends to urgent medical needs but also fosters crisis resilience, which will ultimately result in lifesaving and long-term improvements in health outcomes. This study would attempt to explore sustainable health financing strategies in humanitarian settings with respect to the challenges, innovations and efforts towards achieving universal health coverage.

2. Sustainable Health Financing in Humanitarian Settings

Ensuring that vulnerable populations receive the care they require in humanitarian contexts is a key concern that calls for novel ways to sustainable health finance. Conflicts, natural disasters, and forced relocation are examples of humanitarian emergencies that frequently cause disruptions to health systems and major obstacles to receiving healthcare [7, 8]. To solve these issues and offer long-term solutions, sustainable finance methods are crucial.

As reported by Miller et al. [9], one of the significant issues in humanitarian settings is the requirement for immediate short-term funding. Conventional funding for humanitarian causes is frequently reactive, emphasizing short-term needs above long-term viability. Following the conclusion of the first emergency response, this strategy may result in gaps in healthcare services. An increasing amount of focus is being placed on combining development and humanitarian health resources to solve this. The goal of this integration is to establish a continuum of care that connects long-term health system strengthening with emergency response [10]. Also, to improve sustainability, novel finance techniques are also being investigated. These consist of concessional loans, social impact bonds, and health insurance programs. By distributing risk over wider demographic and pooling resources, health insurance can offer a more reliable source of income. Through the purchase of social impact bonds, private investors can fund health initiatives in exchange for returns that are contingent upon desired results. Concessional loans, which have reduced interest rates, can assist nations in making health system investments without having to worry about incurring large debt [11].

The integration of displaced people and refugees into national health systems is a crucial component of sustainable health finance. Integrating these people into already-existing health services can enhance effectiveness and outcomes for both host communities and refugees, as opposed to establishing separate systems. To guarantee that services are available to everyone and that health systems are not overburdened, this strategy necessitates meticulous preparation and management [12]. Furthermore, sustainable health finance also requires local capacity building and community involvement. Health programs can be more effective and culturally acceptable when local communities are involved in their design and execution. Building local capacity can result in a more resilient health system that is better equipped to handle future crisis. This includes educating healthcare professionals and fortifying the infrastructure supporting the health system [13].

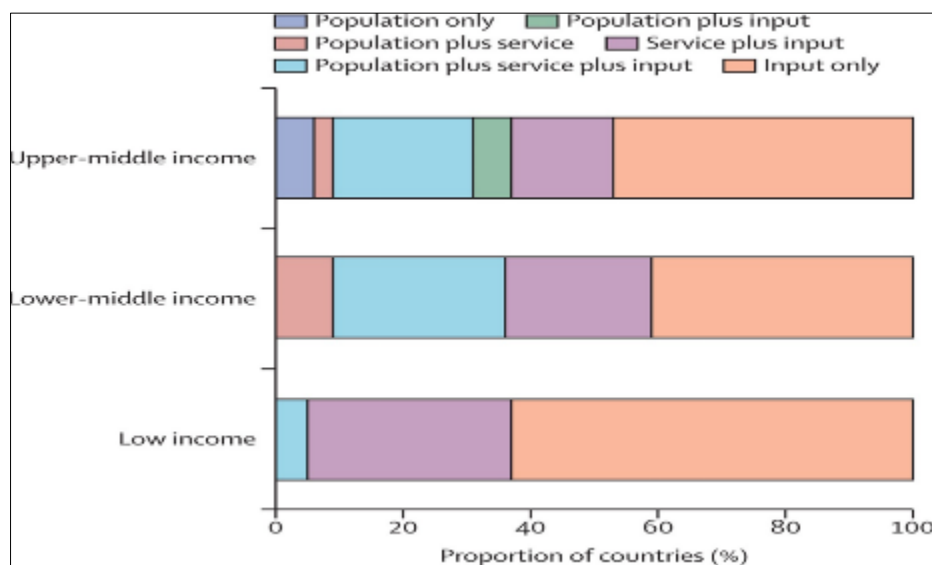


Figure 1 User costs at public PHC providers, including official and informal [60]

3. Challenges in Financing Health Services for Vulnerable Populations

According to the study conducted by Abubakar et al. [14], it can be extremely difficult to pay for healthcare treatments for vulnerable populations, especially in areas with weak or overburdened healthcare systems. Accessing inexpensive and sufficient healthcare can be difficult for vulnerable groups, including those with low incomes, the elderly, ethnic minorities, refugees, and people who live in rural places [15]. A thorough grasp of the social, political, and economic aspects that affect healthcare service delivery and financing is necessary to address these concerns.

Jacquet al. [16] reported that, absence of enough funding for health services that target underprivileged communities is one of the main challenges. Because of their tight finances, authorities in countries with low or middle incomes sometimes choose to fund high-profile programs or urban hospitals over community-based treatment [17]. In rural and underdeveloped areas, this can lead to shortages of important medications, a lack of skilled people, and inadequate healthcare facilities [18]. These communities continue to be underserved in the absence of focused investment, which feeds the cycle of deteriorating health. Furthermore, expensive out-of-pocket healthcare expenses are another problem that significantly impacts vulnerable groups. People are compelled to pay for services themselves when government health programs are inadequate, which can put them in financial trouble or cause them to put off urgent care [19]. This can lead to unmanageable medical costs for those with low incomes, making them choose between paying for healthcare and meeting other basic requirements like food or housing [20]. Disparities in access to health services are amplified by the lack of availability or accessibility of financial protection measures, such as health insurance, especially in informal or rural economies.

An additional obstacle is the uneven allocation of resources. Access to services is frequently more challenging for vulnerable groups since they reside in areas with fewer healthcare facilities and professionals [21, 22]. Extended travel distances and lengthier wait times for care may result from the absence of clinics, hospitals, and medical experts in remote and rural locations [23, 24]. This is especially troublesome for groups of people who need immediate and frequent medical attention due to disability or chronic health issues. Systemic prejudice also affects healthcare inequities since it might be difficult for marginalized groups to receive services due to language and cultural obstacles [25]. Also, ineffective government and unstable politics might thwart attempts to adequately fund and provide healthcare. Health budgets may be mismanaged and donor funding may not reach the intended beneficiaries in areas impacted by war or corruption [26]. Since vulnerable communities depend on government programs or foreign help for healthcare, they are frequently the first to suffer in such circumstances.

4. Innovative Financing Models in Humanitarian Contexts

Bellinger et al. [27] reported that humanitarian aid is changing due to innovative finance models that introduce new mechanisms to assure the sustainability of relief operations, lower risks, and mobilize resources. When it comes to dealing with the growing complexity and frequency of humanitarian emergencies, traditional funding techniques frequently fall short [28]. Numerous creative financing strategies have been created to close this gap. Impact bonds, Islamic social finance, crowd sourcing websites, insurance against disaster risk, blended finance, and the investigation of digital financial solutions are a few of them. Impact bonds are products that are dependent on performance, whereby private investors contribute initial funds to support humanitarian endeavors. Donors or governments pay returns in accordance with the accomplishment of predetermined goals. Accountability and effectiveness in the utilization of funds are guaranteed by this framework [29]. However, Islamic social finance uses Islamic financial concepts, as well as instruments like Islamic bonds and Zakat (philanthropic donations), to finance charitable endeavors. These tools make use of a huge reservoir of resources from nations and societies with a majority of Muslims [30]. Internet-based platforms allow people and organizations to directly support humanitarian projects through crowd-funding. This makes financing more democratic and enables quick resource mobilization in times of need [31]. Furthermore; pre-arranged funding methods that supply quick cash in the event of a disaster are a part of the disaster risk insurance model. It facilitates prompt response and recovery, lessening the financial burden on impacted communities over time [28]. Through the reduction of risks provided by public support, blended finance seeks to encourage private investment into humanitarian projects. This strategy makes use of both sectors' advantages to increase impact [32]. Also, innovations like mobile money and block chain are being leveraged to improve fund distribution efficiency, lower transaction costs, and increase transparency. These solutions work especially well to reach underprivileged and rural communities [33]. These creative approaches encourage increased transparency, effectiveness, and sustainability in humanitarian relief in addition to opening up new financing streams. The methods employed to address humanitarian crisis must also change as they do in order to guarantee that relief reaches those in need as soon as possible.

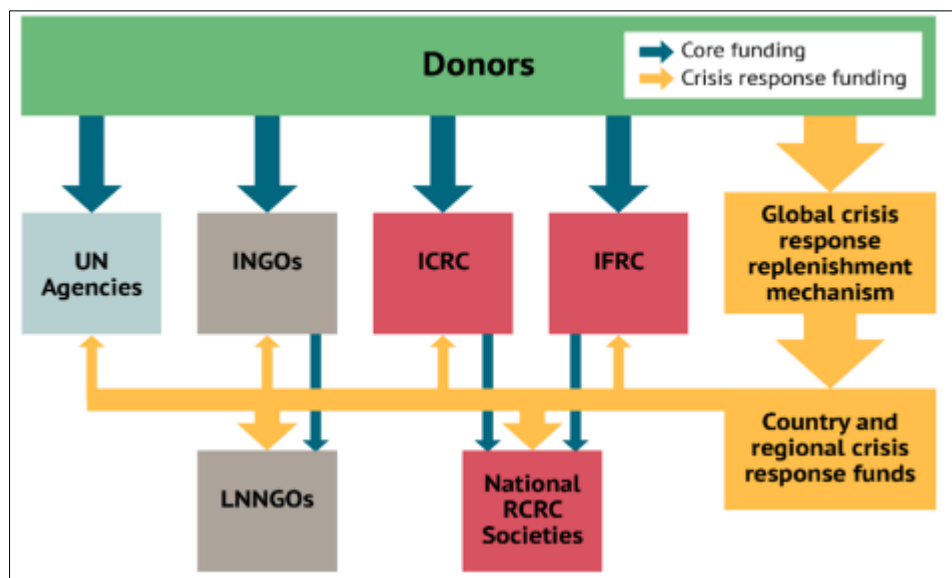


Figure 2 Overview of some humanitarian donors and agencies in health finance [61]

5. The Role of International Organizations in Health Financing

International organizations are essential to the financing of health care, especially in low- and middle-income nations (LMICs). In order to enhance health systems and achieve universal health coverage (UHC), organizations like the World Health Organization (WHO), the World Bank, and the Global Fund to Fight AIDS, Tuberculosis, and Malaria) give crucial financial resources, technical help, and policy guidance. The WHO concentrates on essential tasks including collecting money, combining resources, and making service purchases. [33]. This aids nations in creating and putting into effect health funding plans that guarantee everyone has access to healthcare. The World Bank emphasizes sustainable health finance and economic growth while offering financial and technical support for health programs [34]. The Global Fund raises money and makes investments to fund initiatives managed by regional specialists in the most underprivileged nations and communities [35]. To improve efficiency and accountability in health spending, these organizations also support creative funding methods including results-based financing and health insurance plans [33]. They also promote international collaboration and knowledge exchange, assisting nations in benefiting from one another's experiences and efficient methods [34].

6. Community-Based Health Financing Initiatives

Initiatives known as Community-Based Health Financing (CBHF) are neighborhood-based projects that combine resources to increase healthcare access [36]. These programs are usually optional, with participants contributing to a shared fund that is then used to pay for collective medical expenses. In low- and middle-income nations, where official health insurance systems may be deficient or nonexistent, CBHF is especially helpful. One of the key advantages of CBHF is its ability to reduce out-of-pocket expenses for healthcare, thereby providing financial protection against catastrophic health expenditures [37]. Communities can ensure that finances are available when required and negotiate better rates with healthcare providers by pooling their resources. Members' sense of support for one another and solidarity are also fostered by this group effort.

Nonetheless, low participation rates and the exclusion of the poorest people, who might not be able to make even small contributions, are limitations with CBHF programs [38]. Regardless of these obstacles, CBHF can supplement efforts to achieve universal health coverage by lowering costs and enhancing access to healthcare services.

7. Pathways to Achieving Universal Health Coverage in Crisis Settings

According to Kodali [39], during crisis, achieving Universal Health Coverage (UHC) is a challenging but crucial objective. Crisis such as those sponsored by war, natural disasters, or pandemics, present particular difficulties that need for specialized approaches to guarantee that everyone has access to the medical care they need without suffering financial hardship. Some of the approaches includes: strengthening health systems, integrating emergency and routine health

services, community engagement and participation, leveraging technology, ensuring financial protection, coordination and collaboration and monitoring and evaluation.

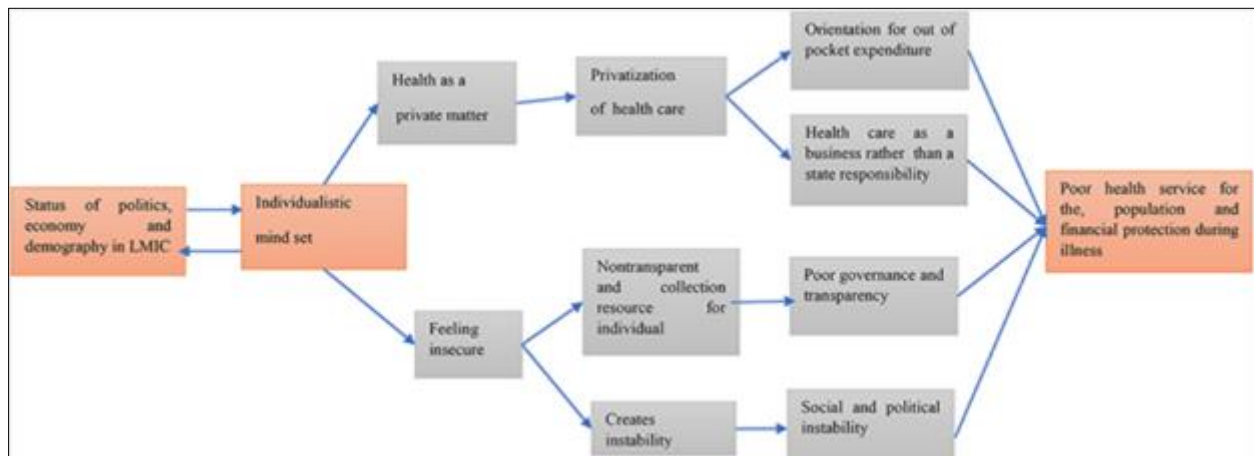


Figure 3 Universal health coverage (UHC) and its systemic feature [62]

Health systems are usually overwhelmed in times of crisis. To achieve UHC, these systems must be strengthened. This includes repairing the infrastructure, making sure that necessary medications and supplies are available, and providing healthcare personnel with training [16]. Governments and international organizations must work together to offer the financial and technical assistance needed to improve and restore health services. Furthermore, regular health care is sometimes neglected during emergencies as the emphasis is frequently diverted to emergency action. Care continuity is ensured by the integration of routine and emergency health services. For instance, in order to preserve vital health services during the COVID-19 pandemic, several nations combined routine immunization and maternal health services with COVID-19 testing and treatment [40, 41].

Also, engagement of the community is essential in crisis. Participating communities in the development and delivery of health care guarantees that interventions are tailored to the population's needs and suitable for their culture. In order to provide services, impart health knowledge, and foster trust between the public and healthcare professionals, community health workers can be extremely important. [42]. When providing healthcare in emergency situations, technology can fill in the gaps. Particularly in isolated or difficult-to-reach places, telemedicine, mobile health apps, and electronic health records can enhance patient access to care. For example, telemedicine platforms have been utilized to offer follow-up care and consultations in areas of conflict where there are few medical facilities. One of the major impediments to attaining UHC in crisis is financial constraints. Financial safety nets, including vouchers, subsidies, or community-based health insurance programs, can lower out-of-pocket costs and guarantee that people can get the care they need [43, 44]. Funding and technical help can be provided by international funders and humanitarian groups to these efforts.

It is also very crucial that different stakeholders, such as governments, non-governmental organizations (NGOs), international organizations, and local communities, effectively coordinate. Coordination mechanisms, such task teams or health clusters, can be established to improve the efficacy and efficiency of health interventions [45, 46]. Working together guarantees that resources are used efficiently and that no work is done twice. Finally, it is essential to regularly monitor and assess health treatments in order to spot gaps, gauge success, and make required corrections [47]. Making decisions based on evidence and comprehending the effects of initiatives are aided by data gathering and analysis [48]. Real-time data in crisis helps direct quick decisions and enhance the response as a whole.

8. Future Directions and Policy Recommendations for Sustainable Health Financing

Achieving universal health coverage (UHC) and guaranteeing fair access to high-quality healthcare depend on sustainable health financing. Particularly in low- and middle-income countries (LMICs), the future of health finance will need to handle changing demographics, economic, and health problems. Policy recommendations ought to prioritize bolstering financial mechanisms, optimizing efficiency, and guaranteeing inclusion in order to construct robust and enduring health systems.

Increasing domestic resource mobilization is one of the key strategies for sustainable health finance. Governments should make health a top priority when allocating funds, making sure that health spending increases in line with economic expansion [49]. Tobacco, alcohol, and sugar-filled beverage levies, among other creative finance methods, can assist raise extra funds. For instance, some studies report that "sin taxes" have been imposed in several nations to pay for healthcare systems and discourage bad behavior [50, 51]. Furthermore, there is a chance to improve healthcare service delivery and infrastructure by utilizing private sector investments, particularly through public-private partnerships (PPPs) [52].



Figure 4 Efforts of various stakeholders in sustainable health finance [63]

Another critical aspect of sustainable health financing is improving the efficiency of resource utilization. Many healthcare systems suffer from inefficiencies due to fragmented service delivery, high administrative costs, and misaligned incentives [53]. Policymakers should focus on streamlining healthcare delivery systems, integrating health services, and adopting value-based healthcare models that emphasize outcomes rather than the volume of services provided. Digital health technologies, including electronic health records and telemedicine, can play a vital role in improving healthcare delivery efficiency and reducing costs [54, 55]. Also, equity must remain at the forefront of health financing reforms [33]. Universal health coverage requires that financial barriers to healthcare access be minimized, especially for vulnerable populations. Expanding risk-pooling mechanisms, such as social health insurance schemes and community-based health insurance (CBHI), can help spread the financial risks associated with healthcare costs across broader populations, ensuring that individuals are not impoverished by healthcare expenses [56, 57]. Furthermore, international cooperation and development assistance remain crucial, especially in LMICs. Donor support and global health initiatives must align with national health priorities, fostering capacity building and system strengthening rather than creating dependency. International organizations should encourage innovative financing approaches like blended finance, where development funds are used to attract private investment [58, 59].

9. Conclusion

Sustainable health financing strategies in humanitarian settings is such that requires the collaborative effort of several stakeholders across all boards, from the local to the internal setting. Also, exploring the innovative approaches like impact bonds, Islamic social finance, crowd sourcing websites, insurance against disaster risk, blended finance, and the investigation of digital financial solutions will go a long way to addressing the financial challenges that confront

humanitarian health financing. Policies that prioritize bolstering financial mechanisms, optimizing efficiency, and guaranteeing inclusion in order to construct robust and enduring health systems are needed for future directions and policy recommendations for sustainable health financing.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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