



**MMS Bulletin #167**

*The Determinants of Health and the Long Road to Health Equity*

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***An analysis of possible solutions***

**Combating health inequities through holistic thinking and frugal innovation**

By Tania Séverin

*This paper discusses pervading health inequities globally, using cardiovascular diseases (CVDs) and malaria as illustrations. By examining these disparities, it highlights existing barriers to health equity and suggests a few possible solutions to bridge these gaps, with a focus on defragmenting health policies and reconnecting them to other public policies.*



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Health inequities remain a global concern. The life expectancy gap between the poorest and richest countries amounts to 18.1-years<sup>1</sup>. And even within countries, massive disparities persist: in 2012, a fascinating mapping of life expectancy along the London Tube network showed discrepancies in life expectancy of more than 20 years: it amounted to 75 years around Star Lane in contrast to 96 years around Oxford Circus<sup>2</sup>. Wherever we look, the more vulnerable remain the more affected. Globally, a low socio-economic status remains one of the main predictors of poor health and shorter life expectancy. Vulnerable groups are systematically disproportionately affected. This applies everywhere and across health conditions, be they infectious or non-communicable.

At first sight, cardiovascular disease (CVD) and malaria may not have much in common. They have different aetiologies, risk factors, prevention strategies, and treatment protocols. Moreover, they often affect different demographic groups. Yet both have in common the fact that they cause a daunting disease burden. In 2021, cardiovascular disease claimed 20.5 million lives<sup>3</sup>: more people die from CVD worldwide than from any other cause. As for malaria, there were an estimated 247 million cases in 2021, with an daunting cost to both individuals and governments. And both have in common the fact that they affect the most vulnerable most. Malaria disproportionately affects individuals in the WHO African Region, which was home to about 95% of all malaria cases and 96% of deaths in 2021<sup>4</sup>.

In these countries, individuals with a disadvantaged socio-economic background are more susceptible to infection. And within underprivileged communities, the poorest children have a greater likelihood of contracting malaria compared to slightly better-off children. Similar observations hold true for CVD, which is often wrongly believed to be a disease of the affluent. In reality, in low- and middle-income countries, a disproportionate 40% of CVD deaths occur prematurely, compared to just 19% in high-income countries<sup>5,6</sup>. And within national borders, individuals with a lower socio-economic status are more affected because they are more likely to be exposed to lifestyle, environmental and metabolic risk factors<sup>7,8</sup> and to adopt less healthy behaviours. Finally, even though there has been substantial progress in the fight against both conditions in the past decades, progress is now stalling, pointing to the need to develop and implement new, more holistic approaches.



*Spraying a house to protect residents from malaria. Photo: USAID Ethiopia/flickr.com; CC BY 4.0 Deed*

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## ***Delving deeper into inequities: Barriers to equity***

Globally, barriers to equity are multi-faceted. Lack of awareness, which prevents individuals from adopting healthy behaviours, or to seek care whenever necessary, is one. Social norms and beliefs sometimes also stay in the way of optimal health seeking behaviours. Further, unequal access to care is another major barrier to equity: currently, large parts of the global population who need care do not receive adequate treatment<sup>9</sup> due to fragmented service delivery, to geographical barriers, time constraints or issues related to availability and/or affordability<sup>10-12</sup>.

However, the specific barrier we wish to highlight in this paper is the issue of disconnects and fragmentation that runs through health systems as well as through cooperation and development programmes:

How can a health professional deliver supplies to an isolated community if there aren't any navigable roads? How can an individual relay health information to a medical professional when there is limited internet connectivity? How can someone adopt a balanced diet while residing in

an area known as a ‘food desert’? How can children be educated to wash their hands and maintain oral hygiene if there is insufficient access to clean water? How can we mitigate the risk of malaria when lack of drainage results in stagnating water bodies near where people live and gather, or when poor housing lets mosquitoes enter homes too easily? How can a person who suffers a cardiac arrest receive timely treatment when the nearest health facility is hours away and may not have adequate equipment and medications? How can people benefit from health advisories if there’s a lack of local language translation? How can communities anticipate and manage vector-borne diseases when public policies fail to consider changing weather patterns due to climate change? How can cardiovascular health risks associated with extreme heat events be mitigated if urban planning doesn’t provide for green spaces and cooling centres? Such disconnects that run through public policies stand as one of the primary underlying factors causing inequities in health and healthcare access.

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*Kibagare Slum in Nairobi, Kenya. Photo: Ninara/flickr.com; CC BY 4.0 Deed*

Disconnected programmes which fail to take a holistic approach and to tackle the root causes of ill-health represent a major hurdle towards health equity. In this regard, the recent Dispatch on Switzerland’s International Cooperation 2025-2028 is quite telling. While it underscores both health (under human development) and climate and environment as core strategic

focuses, it fails to highlight their interconnections. As a result, it overlooks the necessity for a holistic approach towards projects encompassing environmental and health dimensions, particularly those concerning the prevention of climate change-induced diseases<sup>13</sup>.

The dispatch also earmarks water management and sanitation as a distinct objective but misses the pivotal role they play in promoting community health, particularly for the most vulnerable populations. Numerous studies have documented the association between access to uncontaminated drinking water, enhanced sanitation, and reduced risk of water-borne and vector-borne diseases, including malaria, particularly in children under five<sup>14,15</sup>. Yet, this dispatch does not forge the link between water-sanitation initiatives and broader health programmes. This omission may inadvertently steer towards isolated vertical interventions, rather than integrated cross-cutting programmes, which could yield substantial benefits at marginal additional cost.

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## **Breaking down barriers to equity**

Yet solutions do exist. First and foremost, they include defragmenting and reconnecting approaches to health, healthcare, cooperation and development by promoting both interprofessional and intersectoral or multisectoral collaborations<sup>16</sup>. To combat health inequities, a holistic, collaborative approach is necessary. It includes breaking-down silos across health professions, reinforcing links between the NCDs and the infectious disease communities, as well as reaching out to other professions such as educators, urban planners and environmental scientists, and developing and deploying all-encompassing policies and programmes.

For example, health programmes can be merged with education programmes: integrating health topics into educational curricula can lay the foundation for a health-aware generation. In the context of malaria, achieving higher educational levels can serve as a protective measure against the disease by enhancing awareness and encouraging the uptake of prevention services. School attendance offers children the chance to learn about behaviours that mitigate the risk of

malaria, and in turn, being malaria-free fosters consistent school participation, creating a virtuous cycle. In the longer term, education attainment is correlated with improved job prospects, better housing conditions, and enhanced healthcare accessibility<sup>17</sup>.

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Another example may be the merger of health and climate change programmes. As climate patterns change, vectors like mosquitoes might migrate to new areas, bringing diseases like malaria or dengue with them. By merging health and climate programs, better surveillance, and vector control methods can be developed<sup>13</sup>. And climate change mitigation programmes that aim to reduce urban heat islands (e.g., by planting trees or creating green spaces) can benefit those at risk of CVD by reducing heat stress.

Defragmentation towards greater equity is also about strengthening health systems<sup>18</sup>. By fostering comprehensive strategies that can simultaneously improve infrastructure, supply chain, human resources, and data systems, we can enhance healthcare delivery across all settings, including in underserved areas and communities<sup>19</sup>. Similarly, equipping community health workers (CHWs) with the tools and the support they need to deliver primary care services is also a possible path to defragment care in resource-limited settings. While the mainstay of CHWs has traditionally revolved around maternal and child health or infectious diseases, it is essential, from an equity standpoint, to expand their training to encompass management and referral mechanisms for non-communicable diseases, including CVDs. Similarly, emphasizing the establishment of point-of-care testing sites capable of catering to both infectious conditions such as malaria or HIV, and non-communicable diseases like hypertension, diabetes, and dyslipidaemia – all risk factors for CVDs – underscores a commitment to a more equitable and integrated approach to health.

Finally, in the face of constrained resources, adequate use of technology and frugal innovations—grounded in simplicity, affordability, and efficiency—can be transformative in reaching out to vulnerable and underserved communities. Provided that modern communication means are available and functional, telemedicine can provide a lifeline for communities remote from health facilities. Web-based and mobile health applications can democratize health information and foster patient empowerment – many have been successfully tested with CVD patients<sup>20</sup>. Other technologies, such as drones, have been successfully used to deliver aerial spraying to kill mosquito larvae, identify mosquito larvae sites<sup>21</sup> and deliver drugs, vaccines and even external defibrillators<sup>21,22</sup>. Such technologies, if adequately implemented, can play a pivotal role in bridging the health inequity gap.

## Conclusion

The intricacies of health inequities, as exemplified through the lenses of CVDs and malaria, shed light on the broader challenges global health faces. Addressing these requires a blend of systemic changes, collaborative efforts, and innovative approaches. As the global community marches towards a more equitable future, it is imperative to ensure that health policy is defragmented and reconnected to other public policies, so that health, a fundamental human right, finally becomes accessible to all.

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