Cardiovascular Prevention Model in Kenyan Slums: How Developed Countries Can Learn from this Approach for their African Migrant Populations

African Contributions to Global Health

Essay

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Cardiovascular diseases (CVDs) are the primary global cause of mortality (WHO, 2021). They are often closely interlinked with behavioral patterns and lifestyle such as tobacco use, unhealthy diet, physical inactivity, and excessive use of alcohol. In turn, this means that with the necessary resources most CVDs can be prevented. However, health education, regular screening to guarantee early detection, and, if necessary, continuous treatment is essential to curb the global CVD morbidity and mortality burden. In addition, CVD treatment is often for the entirety of a patient's life and therefore, can cause large economic hardships. The urgency to address noncommunicable diseases (NCDs), which include CVDs, has led the WHO to develop the Global Action Plan for the Prevention and Control of NCDs 2013–2030 (NCD-GAP), followed by an updated new draft of a NCDs 2023–2030 roadmap (WHO, 2022).

Historically, research has mainly concentrated on how new innovations and approaches in healthcare from developed countries have benefited developing countries. While this is still the focus in literature, the concept of "reverse innovation" in healthcare has gained some attention in recent years. "Reverse innovation" addresses the opposite pathway: the exchange of ideas from developing to developed countries (Syed et al., 2012; DePasse and Lee, 2013). For "reverse innovation" to work, developing and developed countries need to have a common problem of high priority. CVDs fulfill this requirement.

With the continuous rapid urbanization of sub-Saharan Africa and the increased number of people living in informal settlements, there is also a rise in the CVD burden (van de Vijver et al., 2013; van de Vijver et al., 2015; van de Vijver et al., 2016). These settings often have poor infrastructure and lack access to quality healthcare. Due to this

situation, two public health research organizations, the Amsterdam Institute for Global Health and Development (AIGHD) and the African Population and Health Research Center (APHRC), collaborated with the Boston Consulting Group (BCG), a private-sector partner (van de Vijver et al., 2013). They created a model to administer a community-based health service package for primary prevention of CVDs using community health workers in slums in Nairobi with the aim to scale up the project in the future (van de Vijver et al., 2013; van de Vijver et al., 2016). They identified four main elements: increasing community awareness about CVD risk factors, improving access to screening, simplifying access to treatment, and improving adherence to treatment (van de Vijver et al., 2013). In consideration of cost-effectiveness, the package only included screening people of 35 years and over, who are at a higher risk of CVDs. It was first implemented successfully in Korogocho, a Nairobi slum, in August 2012. The team developed a manual of how to apply this model in other similar contexts in sub-Saharan Africa (van de Vijver et al., 2015).

In recent years, there has been a high influx of forcefully displaced people from Africa seeking refuge in developed countries, especially in European countries. Additionally, with increased globalization, more Africans migrate to various developed countries to build a life there. Most inhabitants of informal settlements in sub-Saharan Africa have limited access to health services and infrastructure (e.g., sanitation) is often generally lacking. Marginalized groups in developed countries, such as asylum seekers, and foreign migrant groups, especially from developing countries, may face similar challenges to those faced by people living in slums in sub-Saharan Africa (van de Vijver et al., 2015). Because of this, they often experience limited access to quality healthcare, increased exposure to economic inequalities, vulnerable living and working conditions and even social exclusion (WHO 2022). These additional trials may increase their likelihood of adopting high risk behavioral and lifestyle changes. Moreover, African migrants are likely to have similar cultural beliefs and education about cardiovascular diseases as the slum dwellers in Nairobi (van de Vijver et al., 2015). As mentioned previously, there has been growing evidence of the benefits of reverse innovation (Syed et al., 2012). An article published by Vijver et al. in 2015 already discussed the potential benefits this SCALE UP model could have on African migrant settings in the Netherlands.

Forcefully displaced Africans arriving in Europe and other developed countries seeking refuge as well as African migrants in general are often marginalized groups within the existing societies in developed countries and receive limited attention. According to the Sustainable Development Goals and other international principles, the principle of leaving no one behind including refugees and migrants should be applied to the fight against CVDs in developed countries (WHO, 2022). This leads me to the question if this comprehensive community approach to address CVD prevention could also be applied to African migrant groups in different developed countries, with potential benefit to not only them but also the wider society by reducing overall disease burden.

People living in poverty in urban settings are often the most affected by cardiovascular diseases and that profile applies to many individuals living in African migrant communities. In the proposed example of the Netherlands, there is a large African migrant community, in which people are susceptible to chronic diseases partly due to risky lifestyle and lack of knowledge of the dangers of diseases such as hypertension (van de Vijver et al., 2015). While there are primary care clinics with the necessary resources nearby, there are no community-based programs. Prior evidence has shown that community-based health programs can be a tool to decrease health inequalities and lead to better integration of migrants and refugees within their host communities (Riza et al., 2020). This may in turn further improve their health outcomes due to better and more informed behavioral and lifestyle choices. Community-based health programs have also been shown to improve continuum of care, which is extremely important concerning CVDs.

Based on prior literature, the main risk factor for CVDs seems to be hypertension (van de Vijver et al., 2015). Of course, to apply the previously discussed community-based prevention and care approach for CVDs from Kenya, the awareness campaign would have to be adjusted for each individual local situation. Depending on the infrastructure and nearby health facility availabilities, the places for the hypertension and general health screening for the target migrant community would also be tailored on a contextual basis (van de Vijver et al., 2015). It would be essential to involve and train people from within the migrant community to assist with both awareness raising and consultation to improve overall trust in the system as well as long-term treatment

adherence. To strengthen long-term adherence, there could also be different approaches such as sending reminders by mail, phone calls or SMS, and giving them financial incentives to access free or readily affordable treatment. Overall, it is crucial that the migrant communities are involved in every step of the way. By clearly showing them the possible health benefits, they will be empowered to acquire ownership of the entire process including development and implementation of the model in their specific location (van de Vijver et al., 2015).

Since the available health budget will usually look very different in a developed country compared to the setting in Nairobi, cost-effectiveness would have to be determined depending on the local context (van de Vijver et al., 2015). I am convinced that even though the nationwide health budget may be higher in most developed countries, there may still be hesitancy to avail more funds than absolutely necessary for such a project as it is aimed at marginalized groups. Therefore, ensuring cost-effectiveness would still be a very important factor for the model to be successful.

Continuous marginalization and a lack of adequate healthcare provision for people coming from African migrant communities needs to come to an end. This approach has a lot of potential to address this problem, especially since these communities frequently remain isolated, without strongly integrating themselves into their host communities. They may continue to eat the food they are used to from their countries of origin, buy their food from neighborhood shops and live their entire social life within their migrant community. Often, their healthcare is also somewhat decentralized from the rest of the host country's population (van de Vijver et al., 2015). Providing them with a community-based health program where they receive the necessary information from individuals from within their communities and giving them the information necessary to change something about their potentially risky lifestyles is a first step to inclusively address and curb the burden of CVDs while following the policy of leaving no one behind.

In conclusion, if there is a commitment to leaving no one behind, there should be a real effort made to hold true to this principle and provide the level of care needed by marginalized communities in a context specific way. Firstly, there is much developed countries can learn in global and public health from developing countries and these benefits need to be sufficiently acknowledged. Secondly, CVDs which cause a huge

burden globally provide an ideal example where developed countries could learn from approaches and models used by developing countries. This is especially the case regarding migrant communities from these countries with similar cultural beliefs and habits. Finally, to leave no one behind in the day and age of globalization, there is a necessity for developed countries to learn from developing countries to accommodate the diverse groups of people living in developed countries today sustainably.

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