

Global Heart: The Prime Journal for Global Cardiovascular Research Findings, Implementation and Interpretation



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Over the last decades the world has witnessed a transition from a global burden of disease dominated by infectious and maternal/child conditions to a new world in which CVD and other non-communicable diseases (NCDs), notably cardiovascular diseases (CVD), are responsible for a growing proportion of preventable loss of healthy years of life, especially in the world's low- and middle-income regions [1]. More than ever is there a need to understand the driving forces behind this transition to be able to cope with the epidemic of CVD. While decreasing age-adjusted trends have been observed in most Westernized societies, some of the largest low- and middle-income countries (LMICs) (populations >100 million people) had increases in CVD burden rate; in decreasing order of percent burden increase, these included: Bangladesh (27.4%), the Philippines (25.3%), Mexico (19.7%), India (15.4%), Indonesia (8.8%), and China (6.6%) [1]. The geographically shifting epidemic shows differences and similarities to what happened in Europe and North America in the second half of the last century. The risk factors are largely known with some notable new insights such as air pollution now recognized as a major risk factor following hypertension, hyperlipidemia and smoking. The dynamics and context are, however, markedly different. Awareness, diagnosis and treatment of cardiovascular risk factors in Western countries occurred when the epidemic was already reverted. In LMICs the epidemic is still on the increase and any action is an uphill battle. CVD in LMICs is claiming a priority in public health and clinical medicine while many of these countries face an unfinished agenda of infectious diseases and high perinatal maternal and child mortality; the double burden. This puts increased strain on budgets, capacity and public health policies and requires a rethinking of preventive strategies that can work in low resource settings. Collaborative efforts of scientists, health care providers, health care administrators, companies and politicians are needed to find innovative solutions. Innovative solutions include disruptive technologies such as scalable digital alternatives for human work force. We need to develop new views on capacity building and task shifting and, importantly, education and empowerment of health care providers, patients and populations.

It is against this background that Global Heart aims to provide a platform for the exchange of research results, points of view and educational material on the prevention, treatment and control of cardiovascular diseases with a

special focus on LMICs and emerging economies. As the flag-ship Journal of the World Heart Federation Global Heart is uniquely positioned to serve as the primary journal for innovation in global and local prevention and management of CVD. This can take shape in cutting edge applied and translational research, topical summaries of evidence and guidelines, health economics, policy strategies and how-to articles to support local training and capacity building. Material in Global Heart can be addressed to scientists, policy makers, administrators and all that have a role in reducing the burden of CVD for individual subjects and the population at large.

The Journal is going through changes. The new leadership includes a new editor-in-chief and a new editorial board. The Journal is indexed in Pub-Med and will have its first impact factor mid-2019. The website will be revamped and a strategy to broadcast the insights presented in the Journal in social media is in place. Apart from traditional original articles and reviews the Journal welcomes short succinct research letters that show scientific innovation even if in an early stage. Points of view and letters to the editor are similarly welcome to fuel the international debate and trigger new ideas.

In the current issue of the Journal a wide array of relevant and impactful papers can be found. Among some of the most promising low-cost and high-impact innovations is the introduction of the poly-pill with several evidence based pharmacological treatments combined in a single fixed dose combination [2]. A consensus statement of the Inter American Society of Cardiology concludes that the simplification of treatments through the polypill is a powerful strategy in secondary prevention [3].

Most cardiovascular conditions have barely been studied in low-resource settings. Magodoro and colleagues report on the prevalence of prolonged QT interval in Uganda and report that QT interval prolongation is more common in rural Uganda than in high-income settings [4].

The epidemic of CVD in LMICs reflects the characteristics of the epidemic in its early phase in Western societies where particularly relatively young males were affected. A study from India Shukla and coworkers confirms this in the YOUTH registry and provides data to support the view that tobacco consumption is a major contributor of risk in young adults and the prevalence of other risk factors were low in young Western Indians [5].

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While traditionally viewed as a disease in men, CVD affects more women than men worldwide. A study from Senegal calls attention for the burden of CVD in women and shows that acute coronary syndrome (ACS) is not a “man’s only” disease in Sub-Saharan countries. Moreover, the report provides evidence for suboptimal treatment and intervention in women with ACS in this region [6].

Global Heart is not only interested in research that directly reports from low-resource settings or emerging economies. Any findings with global relevance are most welcome. A study from Denmark used nationwide registries to identify all patients discharged alive after a first-time infectious endocarditis (IE) hospitalization in the period 1996 to 2014. Patients who survived IE had an 8 times higher incidence of nursing home admission and a 4 times higher incidence of initiation of domiciliary care than their counterparts from the matched population [7].

Epidemiological studies during the past few decades have associated numerous ailments, including CVD, with both acute and chronic exposures to air pollutants. Bard and coworkers have written a primer with practical recommendations on interventions to reduce personal exposure to air pollution [8].

Hypertension is consistently, and persistently, the most important modifiable risk factor for CVD. The Healthy Heart Africa program was developed to improve access to quality hypertension care in the primary care setting. A systematic evaluation shows that health care provider directed hypertension education and provision of basic resources positively influenced hypertension care in Kenya in the first 12 months of implementation [9]. In an accompanying editorial, Michael Engelgau puts these findings in perspective as he discusses tackling high blood pressure in Kenya and other Low- and Middle-Income Countries [10].

Predictive analytics [11] offers novel approaches to use methodologies that could pinpoint key barriers and facilitators across the community context and lend insights as to what might be highly promising implementation strategies for research agendas. Implementing the NHLBI Strategic Vision [12]—where implementation research is prominent—will potentially benefit from predictive analytics informing the research agenda. A perspective by Engelgau and colleagues reviews the opportunities and challenges of predictive analytics for refining the implementation research agenda targeted at reducing the population burden of CVD [13].

Finally, Carrillo-Larco and coworkers have written a systematic review on cardiovascular disease prognostic models in Latin America and the Caribbean. Across the prognostic models assessed, calibration varied widely from

one population to another, showing marked over-estimation particularly in some subgroups (e.g., highest risk). The study underlines the need for prognostic models that are adequately validated or recalibrated before they can be used with confidence outside the region of origin [14].

I trust this issue of Global Heart appeals to many and gives inspiration to both seasoned and aspiring researchers to submit their results to the Journal. We are continuously working to improve the impact and services of the Journal and welcome any suggestions or comments that help us to do our work even better.

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