

Editorial

Cardiovascular and Metabolic Disease Epidemiology

Demosthenes Panagiotakos

School of Health Sciences and Education, Harokopio University, 17676 Athens, Greece; dbpanag@hua.gr**How To Cite:** Panagiotakos, D. Cardiovascular and Metabolic Disease Epidemiology. *Journal of Cardiovascular and Metabolic Disease Epidemiology* 2024, 1(1), 1.

Cardiovascular and metabolic disease epidemiology in the 21st century must face several challenges. The shifts in global demographics, the evolving nature of risk factors, including both traditional (e.g., hypertension, hypercholesterolemia, diabetes, genetic predispositions, smoking, physical inactivity and unhealthy diet) and emerging ones, such as gut microbiota interactions, along with changes influenced by the living environment, global economy, and climate change, necessitate a new conceptualization and understanding of cardiovascular and metabolic disease epidemiology.

As global life expectancy increases, there is a rise in age-related cardiovascular diseases (CVD) and metabolic disorders, such as type 2 diabetes. The increased section of elderly population has high prevalence of multiple comorbidities, that complicate risk assessment and management. The lifestyle-related rise in obesity across all age groups, has been associated with the significant increase in the prevalence of diabetes, and CVD, worldwide. In addition, increasing sedentary behavior, particularly in urban environments and among youth, further contributes to poor cardiometabolic outcomes. Globalization has promoted the spread of unhealthy dietary habits (i.e., high in saturated fats, sugars, and processed foods), leading to increased cardiovascular risk. Moreover, in many regions around the world, access to healthy and affordable food is limited, creating disparities in cardiovascular and metabolic health. In addition to that, epigenetic modifications, influenced by diet, lifestyle, and environmental exposures, contribute to disease risk, but understanding these mechanisms remains a major challenge. Urbanization influences changes in lifestyle, dietary habits, and engagement in physical activity, contributing to the increased prevalence of obesity, hypertension, and other metabolic disorders. Finally, air pollution and other environmental toxins has long been linked to CVD. However, understanding and mitigating these risks still pose crucial epidemiological and public health challenges.

The integration of a forum that includes large-scale epidemiological information with socio-demographic, clinical, biological, genetic, lifestyle and behavioral, and environmental data for precision medicine is a demand nowadays, which also poses analytical and ethical challenges. The *Journal of Cardiovascular and Metabolic Disease Epidemiology* aims to publish high-quality research in the fields of cardiovascular and metabolic diseases, including obesity, hyperlipidemias, fatty liver disease, and diabetes. The primary goal of the *Journal of Cardiovascular and Metabolic Disease Epidemiology* is to advance understanding of the determinants and trends of all aspects of cardiovascular and metabolic diseases across diverse populations. Additionally, the journal focuses on highlighting public health strategies aimed at preventing cardiovascular and metabolic diseases on a population level, including interventions, policy recommendations, and health promotion efforts.

Conflicts of Interest

The author declares no conflict of interest.

