

Rise in Cardiovascular Disease Events in Haiti: A New and Unaddressed Problem

Arch G. Mainous III, PhD^{a,b}; Jean H. Henrys, MD^c; Stephanie Auguste, MD, PhD^c; Valery M. Beau De Rochars, MD, MPH^b

AUTHOR AFFILIATIONS:

- ^a Department of Community Health and Family Medicine, University of Florida, Gainesville, FL
- ^b Department of Health Services Research, Management and Policy, University of Florida, Gainesville, FL
- ^c Ministère de la Santé Publique et de la Population, Port au Prince, Haiti

CORRESPONDING AUTHOR:

Arch G. Mainous III, Department of Community Health and Family Medicine, University of Florida, Gainesville, FL, arch.mainous@ufl.edu

HOW TO CITE: Mainous III AG, Henrys JH, Auguste S, De Rochars VMB. Rise in Cardiovascular Disease Events in Haiti: A New and Unaddressed Problem. Fam Med. 2023;56(6):401-402. doi: 10.22454/FamMed.2023.472634

© Society of Teachers of Family Medicine

PUBLISHED: 13 November 2023

TO THE EDITOR:

Global health programs give medical students an introduction to global health practice, research, and collaboration. 1 Many of these programs occur in low-resource environments to provide students an experience that is much different than that in the United States. Further, the programs offer experiences with local diseases and their medical, social, and systemic root causes, as well as potential interventions appropriate for these

Haiti is the poorest country in the Western Hemisphere and is the focus of many global health experience programs for medical students and medical mission programs.²

These programs tend to focus on infectious diseases like malaria and HIV, as well as pathogens like Zika virus, and chikungunya in Haiti.3-5 Cardiovascular disease prevention is typically not a focus of care. Even the most basic idea of blood pressure control is not a focus, which is unfortunate considering that the population is under extreme psychological stress and has poor dietary intake. Little is known about the incidence of major cardiovascular events in Haiti.

The Ministry of Public Health and Population (Ministère de la Santé Publique et de la Population [MSPP]) in Haiti is relatively new to disease surveillance. Working with the Single National Health Information System (Système d'Information Sanitaire National Unique [SISNU]), funded in part by the US Agency for International Development, we investigated the incidence of major cardiovascular events (ie, stroke and myocardial infarction) that presented to emergency departments. SISNU first began counting these events for the country in 2019. The incidents are coded using a Haitian and French system designating emergency department for cardiovascular disease events (urgences medico-chirurgicales cardio-vasculaires). The number of cardiovascular events has shown a disturbing rise considering its relatively limited focus from the MSPP and from global health and medical mission programs. The country-level incidence was 6,268 in 2019, 9,586 in 2020, 11,912 in 2021, and 11,363 in 2022. The incidence of cardiovascular events in Haiti has increased by 81% between 2019 and 2022. These data are in fact possibly undercounts of cardiovascular events because of the relatively new introduction of systematic data collection that is part of the SISNU.

Haiti may be undergoing an epidemiological transition from infectious disease to chronic disease—a transition that is common to developing societies. 6 Cardiovascular disease prevention is not something that typically has been a priority in Haiti and in medical mission trips to Haiti. Based on these findings, it seemingly should rise in the priorities, and global health programs should work with the MSPP to add cardiovascular disease prevention to their health experience while in Haiti.

REFERENCES

- Global health education for medical students and residents.
 American Academy of Family Physicians. 2023.
 https://www.aafp.org/family-physician/patient-care/global-health/education.html.
- 2. Rochars BD, Cadet VM, Mainous JC, Iii AG. Global health: a view from the school of medicine of L'Université d'État d'Haïti. *Fam Med.* 2018;50(4):259-261.
- 3. Vincent JP, Existe AV, Komaki-Yasuda K, Boncy J, Kano S. Performance of the procedure for ultra-rapid extraction and loop-mediated isothermal amplification (PURE-LAMP) method

- to detect malaria in Haiti. Infect Dis Poverty. 2023;12(1):53.
- 4. Lednicky J, De Rochars B, M V, Badry E, M. Zika virus outbreak in Haiti in 2014: molecular and clinical data. *PLoS Negl Trop Dis.* 2016;10(4):4687.
- 5. White SK, Morris JG, Elbadry MA, et al. Complete genome sequences of chikungunya viruses isolated from plasma specimens collected from Haitians in 2014. *Genome Announc.* 2017;5(15):148-165.
- 6. Santosa A, Wall S, Fottrell E, Högberg U, Byass P. The development and experience of epidemiological transition theory over four decades: a systematic review. *Glob Health Action*. 2014;7(1):23574.