

STUDENTS' CORNER LETTER TO THE EDITOR

Highlighting the growing cardiovascular disease burden in Pakistan

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Dear Editor, While the global burden of cardiovascular disease (CVD) continues to decline, it is concerning that Pakistan's CVD rates are moving in the opposite direction. Mansoor et al.¹ using data from the Global Burden of Disease (GBD) 2019, highlight how Pakistan's CVD burden has shown little improvement over the past three decades. This represents a public health crisis that requires immediate action.

The age-standardized mortality rates (ASMRs) and age-standardized DALY rates (ASDRs) in Pakistan remained relatively stable from 1990. In fact, ASMRs and ASDRs showed an "inverted U-shape" trend, with both values peaking around 2002.¹ In contrast, global ASMR and ASDR values declined by 32.4% and 31.3% respectively, and were almost always much lower than Pakistani estimates.¹ Mansoor et al. identify several major modifiable risk factors contributing to this gap, including high systolic blood pressure (SBP), high fasting plasma glucose, elevated LDL-C, dietary risk, smoking, and environmental factors.

These findings reflect Pakistan's broader public health reality. Hypertension affects 33% of adults over 45,² while 34.5 million people live with type 2 diabetes (T2D), the first largest affected population globally.³ Furthermore, tobacco use is highly prevalent in Pakistan, which further intensifies the CVD crisis. Moreover, Pakistan ranks third in terms of ambient air pollution (PM_{2.5} levels).⁴ This high level of air pollution is largely due to biomass and traditional fuels such as coal still being used indoors while other nations have already switched to cleaner sources. A diet rich in saturated fats and salt worsens underlying metabolic risks.

To address this growing challenge, immediate and coordinated action is necessary. Tobacco use can be

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reduced through higher taxes on tobacco products. Air pollution can be lowered by facilitating a transition from traditional biofuels to relatively cleaner sources such as natural gas. These fuels must be made affordable and easily accessible, particularly in rural areas. Moreover, integrating routine screening for hypertension and blood glucose levels in local clinics and pharmacies can assist with early detection and better management of these metabolic risks. Public health campaigns promoting a healthier diet should also be carried out with assistance from non-government organizations.

Swift action is essential not only to save the roughly 360,000 Pakistani lives lost each year, but also reduce the economic pressure that CVD exerts on our already limited financial resources.⁵

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References

1. Mansoor T, Abdul Jabbar AB, Virani S, Minhas AMK. Burden of cardiovascular disease attributable to risk factors in Pakistan: insight from Global Burden of Disease Study 2019. *Proc (Bayl Univ Med Cent)* 2025;38:600-14. doi: 10.1080/08998280.2025.2522617.
2. Saleem F, Hassali AA, Shafie AA. Hypertension in Pakistan: time to take some serious action. *Br J Gen Pract* 2010;60:449-50. doi: 10.3399/bjgp10X502182.
3. IDF Diabetes Atlas 11th Edition - 2025 Available at | diabetesatlas.org. Cited on 20. August, 2026.
4. Rehan ST, Iftikhar A, Khan S, Hussain HU, Ullah I, Naseer U, et al. Air pollution a hidden scourge to cardiovascular health: insight from top polluted cities of Pakistan. *Int J Surg* 2023;109:553-4. doi: 10.1097/JS9.000000000000135.
5. World Heart Federation (WHF). World Heart Observatory: Pakistan. [Online] 2025 [Cited 2026 February 05]. Available from URL: <https://world-heart-federation.org/world-heart-observatory/countries/pakistan/>

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