AB012. Distributions, risk factors and epidemiological trends of pancreatic cancer in low- and middle-income countries: a comprehensive analysis

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Background: Pancreatic cancer is an emerging public health concern in low- and middle-income countries (LMICs). Late diagnosis resulting from a lack of effective screening tools contributes to its poor prognosis and high mortality rate. The study investigates risk factors associated with pancreatic cancer to identify potential targets for prevention and intervention.

Methods: We assessed the burden of pancreatic cancer in LMICs by analyzing sex differences, age groups, trends over time, risk factors, and disability-adjusted life years (DALYs) using publicly available global databases, such as the Global Burden of Disease (GBD) Study from the Institute for Health Metrics and Evaluation (IHME).

Results: The DALYs peaks occurred at 70–74 for upper-middle income (816.33 DALYs); 70–79 for lower-middle income (496.96 and 495.55 DALYs, respectively); and 70–74 for low income (424.26 DALYs). Females experienced greater increases in DALYs than males across all income groups, with increases of (from high income to low income) 12.23%, 31.76%, 90.26%, and 63.62% between 1990 and 2019. The corresponding values for males were 3.19%, 39.95%, 62.05%, and 31.96%. Behavioral risks were the most prominent risk factor for pancreatic cancer, with DALYs decreasing by 13.45% in high-income countries and increasing by 29.23% to 32.81% in lower-income countries. Incidence has increased by 16.86% in high income countries, 45.32% in upper middle-income countries, 79.21% in lower middle income countries, and 48.51% in low income countries.

Conclusions: In conclusion, the data provided highlights the significant burden of pancreatic cancer across all income categories, with the highest rates observed in older age groups and in high-income countries. The burden is further exacerbated by differences in rates between males and females across income categories. This study emphasizes the need for targeted prevention and early detection efforts, particularly in LMICs where resources and healthcare infrastructure may be limited.

Keywords: Pancreatic cancer; low- and middle-income countries (LMICs); disease burden; risk factors; temporal trends

Acknowledgments

Footnote

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at https://jphe.amegroups.com/article/view/10.21037/jphe-2023-apru-ab012/coif). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related

to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). This study was approved by the Survey and Behavioural Research Ethics Committee, The Chinese University of Hong Kong (No. SBRE-22-0826) and individual consent for this retrospective analysis was waived.