

Smoking and alcohol leading cause of surge in cancer deaths and cases in Asia, global study finds

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A large new global study published in [*The Lancet Regional Health—Southeast Asia*](#) reveals that cancer-related deaths rose to 5.6 million in 2019 from 2.8 million in 1999 in Asia, attributing the surge mainly to smoking and alcohol.

The study highlights a more than two-fold increase in [cancer](#) cases which it finds to have skyrocketed to 9.4 million in 2019 from 3.7 million in 1990, citing unsafe sex and pollution as among other factors.

The authors write, "In Asia, there were 9.4 million new cancer cases in 2019, having more than doubled in comparison to 1990 (3.7 million). In 2019, all cancers resulted in an estimated 5.6 million deaths in Asia up from 2.8 million in 1990.

"For both sexes combined, smoking was the top risk factor followed by [alcohol use](#) and ambient particulate matter (PM) pollution. Among the [modifiable risk factors](#), smoking, alcohol use, ambient particulate matter (PM) pollution, and unsafe sex remained the dominant risk factors between 1990 and 2019.

"Among males, smoking, alcohol use and ambient particulate matter (PM) pollution were the leading risk factors, whereas [unsafe sex](#) caused the maximum DALYs due to cancers among females, followed by smoking and high body mass index."

The authors assess the overall burden of the disease leaning on DALYs, or the disability adjusted life year, which, according to the [World Health Organization](#), represent the loss of one year of healthy life due to disease, causing either premature death or disability.

[Ambient particulate matter](#), or PM, is a chemical substance emitted

directly from construction sites, unpaved roads, fields, or smokestacks for fires. The chemical substances include sulfates, nitrates, ammonia, sodium chloride, black carbon, mineral dust, and water.

According to one of the study's co-authors, the research is the product of a massive investigation in which hundreds of researchers from around the globe took part. "This work, part of the GPD Collaborator Network, involves approximately 400 researchers from around the world, selected on the basis of their scientific merits and expertise in the field," says MoezAllIslam Ezzat Faris, Professor of Clinical Nutrition and Diabetics at the University of Sharjah.

Based in the Institute for Health Metrics and Evaluation (IHME) at the University of Washington, the GPD or Global Burden of Disease is the largest and most comprehensive scientific effort to quantify health loss across places and over time. It includes 11,000 individuals from over 106 countries who collaborate in vetting GBD data sources and estimates.

Prof. Faris classifies the study under the GBD category, or Global Burden of Disease. To qualify as GBD, a study has to involve the largest and most comprehensive endeavor possible to quantify health loss across places and over time.

The [medical community](#) sees studies drawing on GBD as the most extensive research undertaking to quantify health issues globally. GBD-based studies have so far provided [more than 607 billion highly standardized and scientifically robust metrics](#).

"The main authors listed at the top of the paper are those who have shouldered the largest portion of the work, including data analysis, and drafting the manuscript. The remaining authors contribute to different parts of the manuscript based on their expertise," says Prof. Faris.

Prof. Faris sees the study's findings as "the most significant to date" because of the range of factors and volume of data considered in the analysis.

The study was spurred by the fact that cancer represents a challenging public health threat in Asia. The global and multifaceted research examines the temporal patterns of incidence, mortality, disability, and risk factors of 29 cancers in the last three decades.

The authors examine cancer rates in 49 Asian countries from 1990 to 2019. "We studied how many people got cancer and died from it and the impact on their quality of life. We also looked at how different factors, like age and where people live, affect cancer rates.

"This helped us understand how cancer affects different countries. We found that some cancers are linked to certain risk factors. We used this information to see how cancer rates changed over time," affirms Prof. Faris.

The authors focused on changes in numbers and percentages for the incidence and deaths related to cancer, comparing 1990 data with 2019. The information they present confirms that the burdens of both cancer incidence and death were doubled or more than doubled from 1990 to 2019.

They find that cancer rates vary widely across Asian countries, with some having much higher rates than others. Certain types of cancer, such as tracheal, bronchus, and lung cancer, breast cancer, colon and rectum cancer, stomach cancer, and prostate cancer, are found to be among the top five cancers in terms of incidence and mortality rates.

The study comes to numerous important conclusions. One of them warns that despite medical advances and treatment methods, cancer is

increasingly becoming a serious health hazard in Asia.

"With growing incidence, cancer has become a more significant public health threat in Asia, demanding urgent policy attention and guidance. Its heightened risk calls for increased cancer awareness, [preventive measures](#), affordable early-stage detection, and cost-effective therapeutics in Asia," the authors affirm.

"In conclusion, cancer incidence is ubiquitously increasing in Asia, with mortality rates stagnating or decreasing for a few cancers in the last three decades. Among the modifiable risk factors, smoking, alcohol consumption, and ambient PM pollution remain the dominant risk factors, and the cancer burden due to ambient PM pollution, high body-mass index, and high fasting plasma glucose have increased, most notably between 1990 and 2019.

"Therefore, tackling the increasing cancer burden in Asia requires effective primary and secondary prevention strategies along with access to timely and cost-effective screening, diagnostic, and therapeutic services."

More information: Rajesh Sharma et al, Temporal patterns of cancer burden in Asia, 1990–2019: a systematic examination for the Global Burden of Disease 2019 study, *The Lancet Regional Health - Southeast Asia* (2024). [DOI: 10.1016/j.lansea.2023.100333](https://doi.org/10.1016/j.lansea.2023.100333)

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