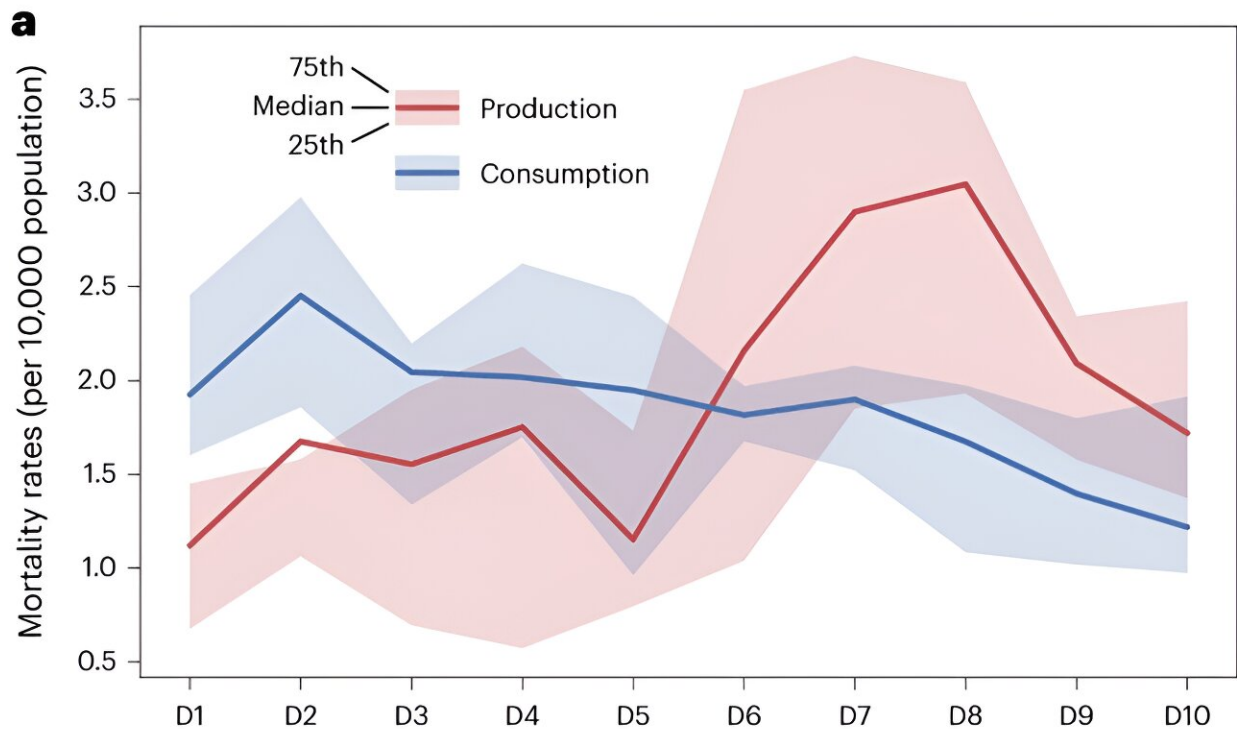


Low-income groups bear greater health burden in food systems: Study

May 20 2024, by Sean Elijah Tan



Relationship between income and premature mortality rate. Credit: *Nature Food* (2024). DOI: 10.1038/s43016-024-00946-7

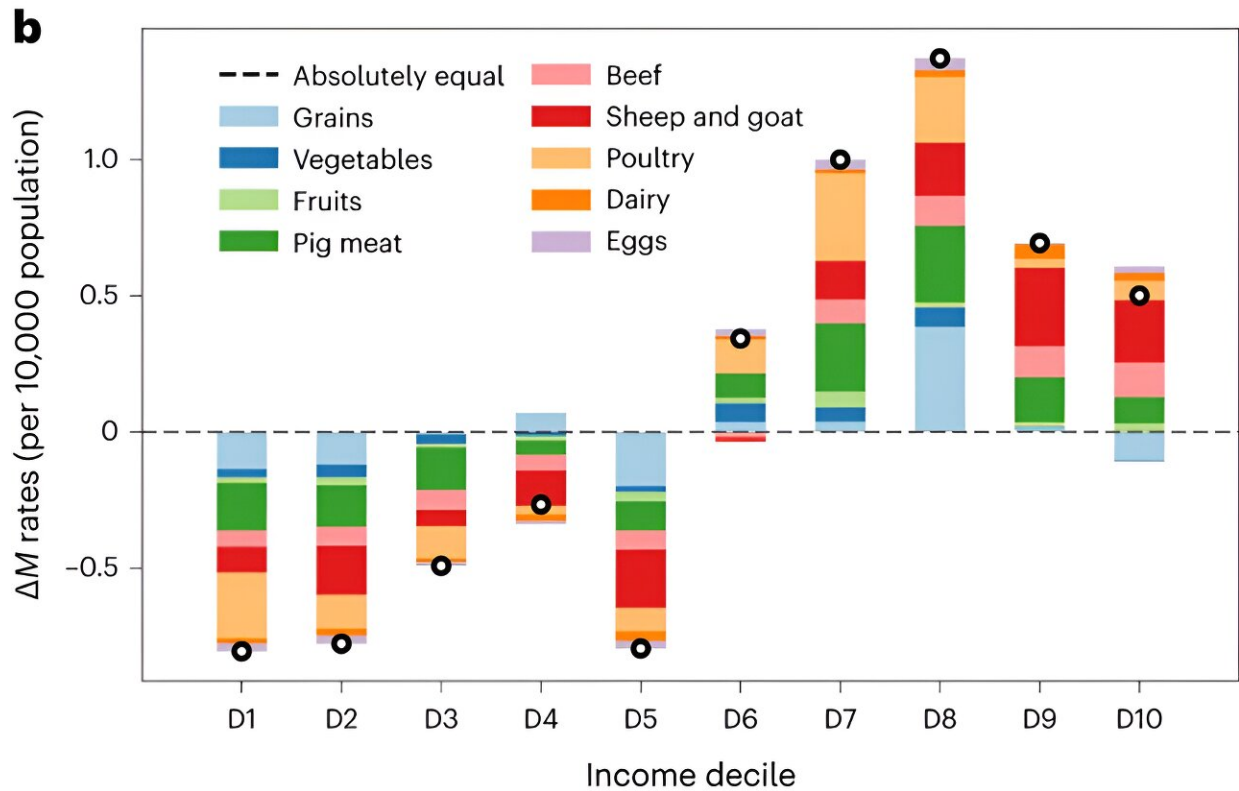
Across regions where food is produced, emissions from agriculture pose health risks to local populations. Among them, low-income groups are hit the hardest, a [study](#) published in *Nature Food* by researchers at Peking University (PKU) and collaborators finds.

The study underscores significant health risks and inequalities within global food systems, revealing that low-income populations are disproportionately affected. These findings are critical for addressing disparities targeted by the United Nations Sustainable Development Goals (SDGs).

Key findings:

- China's food system resulted in approximately 260,000 premature deaths in 2017.
- 74% of [premature deaths](#) attributed to food production were linked to ammonia (NH₃) [emissions](#) from grain cultivation and livestock rearing. The remaining deaths were due to emissions from [food processing](#), packaging, transportation, and retailing.
- Low-income groups bear 70% greater health burden from food production as compared to consumption, while higher-income groups experience a 29% lower risk.
- Intervention strategies targeting both food production and consumption can effectively reduce health damage and mitigate inequalities, while singular-end interventions exhibit limited efficacy.

The study utilized high-resolution emission inventories of ammonia and other pollutants, provincial-scale input-output models, and CMAQ concomitant models (computer tools that are used for air quality management) to assess health risks.



Difference in mortality rate attributable to food production versus consumption, across income groups. Credit: *Nature Food* (2024). DOI: 10.1038/s43016-024-00946-7

This study highlights the need for integrated interventions that address both production and consumption processes to effectively reduce [health risks](#) and inequalities. This research provides a crucial step forward in understanding and mitigating the health impacts of food systems on different income groups globally.

More information: Lianming Zheng et al, Health burden from food systems is highly unequal across income groups, *Nature Food* (2024). DOI: [10.1038/s43016-024-00946-7](https://doi.org/10.1038/s43016-024-00946-7)

Provided by Peking University

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