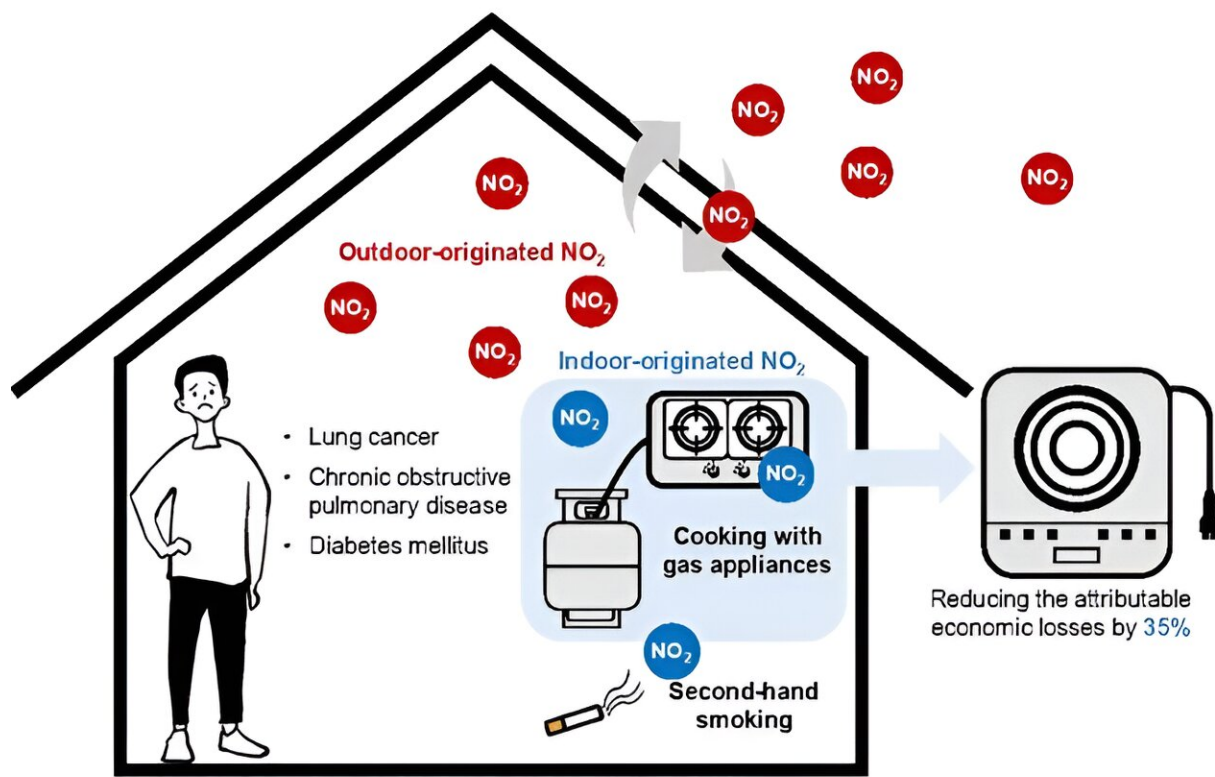


The impact of electric cooking on reducing nitrogen dioxide–related diseases in urban China

January 26 2024



Disease burden attributed to NO₂ in urban China in 2019:
1675 thousand (655–2624) disability-adjusted life years (DALYs)
[138 billion (54–216) CNY economic losses]

Credit: *Eco-Environment & Health* (2023). DOI: 10.1016/j.eehl.2023.10.003

In a study published in the journal [Eco-Environment & Health](#), researchers from Tsinghua University used modeled NO₂ exposure concentrations, exposure-response relationships with lung cancer, chronic obstructive pulmonary disease, and diabetes mellitus, and baseline disability-adjusted life years (DALYs) to estimate the disease burden attributable to NO₂ exposure in urban China in 2019.

The results show that approximately 1,675 DALYs and 138 billion Chinese yuan in [economic losses](#) were attributed to NO₂ in 2019. The study also estimated the potential reduction in disease burden that could be achieved by switching from gas to electric stoves for household cooking. Remarkably, transitioning from gas to electric cooking in households could reduce these losses by 35%.

"This study highlights the importance of considering both outdoor and indoor sources of NO₂ exposure when assessing the health impacts of air pollution," said Prof. Zhao, lead author of the study. "Switching from gas to electric stoves is a simple and effective way to reduce NO₂ exposure and improve public health."

The study's findings challenge the conventional view of gas as a clean energy source for cooking. It emphasizes the significant public health benefits of switching to electric cooking in urban settings. Furthermore, it underscores the importance of comprehensive strategies targeting both indoor and outdoor NO₂ emissions to effectively mitigate pollution and its associated health risks.

More information: Ying Hu et al, Reconsidering Gas as Clean Energy: Switching to Electricity for Household Cooking to Reduce NO₂-attributed Disease Burden, *Eco-Environment & Health* (2023). [DOI: 10.1016/j.eehl.2023.10.003](https://doi.org/10.1016/j.eehl.2023.10.003)

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