

New study shows that wood heaters are responsible for dozens of avoidable deaths in the ACT each year

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Smoke from wood heaters causes between 11 and 63 deaths per year in the Australian Capital Territory (ACT), according to a new study from researchers at The Australian National University (ANU), the HEAL National Research Network and the Center for Safe Air. The research is published in [*the Medical Journal of Australia*](#).

The study found the estimated annual equivalent cost of these deaths is between \$57 and \$333 million, highlighting both the health and economic consequences of wood heater use.

"Wood heaters are a major source of air pollution, surpassing [road traffic](#) and industry in the ACT," lead researcher and ANU Professor Sotiris Vardoulakis, who is also Director of the HEAL Network, said.

"Our research found the estimated annual number of deaths in the ACT caused by smoke from wood heaters is similar to that attributed to the extreme smoke of the 2019–20 Black Summer bushfires.

"In addition to air pollution, wood heaters also produce [carbon dioxide](#), methane and black carbon, which all contribute to climate change."

Professor Vardoulakis said exposure to wood heater smoke can exacerbate conditions such as asthma and other respiratory and [cardiovascular conditions](#), as well as heightening the risk of premature death.

"These [health conditions](#) are aggravated during winters when the air stagnates due to the local topography, and the cold and polluted air gets trapped near the ground," he said.

The ACT government plans to phase-out wood heaters in the Canberra region by 2045. But the authors argue that "action must not be delayed."

"Steps including not permitting the installation of new wood heaters in homes, phasing out existing ones in urban and suburban areas, and providing support for a clean domestic energy would offer major health and environmental benefits in Australia," Professor Vardoulakis said.

"Other effective measures could include [financial incentives](#) or rebates to lower-income families to help encourage people to replace wood heaters with cleaner alternatives that produce lower emissions."

Study co-author Professor Fay Johnston, Director of the Center for Safe Air, said, "Diligent public health actions against passive smoking in enclosed public spaces proved to be an effective way of eliminating harmful exposure to tobacco smoke."

"We can take inspiration from such actions and implement measures to ensure cleaner, healthier and more sustainable heating options are used.

"This may include reverse cycle air conditioning powered by [renewable sources](#), which can keep homes warm in winter and cool in summer without damaging [community health](#) and the environment."

More information: Sotiris Vardoulakis et al, Wood heater smoke and mortality in the Australian Capital Territory: a rapid health impact assessment, *Medical Journal of Australia* (2023). [DOI: 10.5694/mja2.52176](#)

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