

CLAHRC Researcher Professor Jonathan Grigg has been part of the ever largest study of the effects of a biomass-fuelled cookstove intervention on health outcomes. The intervention comprising two biomass-fuelled cookstoves, a solar charger, repair and maintenance service, and user training.



Many people in low- and middle-income countries do not have access to reliable energy sources such as electricity and therefore still cook and heat their homes using solid fuels (i.e. wood, crop wastes, charcoal, coal and dung). Around 3 billion people are obliged to use such inefficient cooking fuels and technologies which produce high levels of household air pollution with a range of health-damaging pollutants, including small soot particles that penetrate deep into the lungs.



Professor Grigg, Leader of our Child Health research Theme, was part of a team investigating whether replacing open fires with cleaner burning biomass-fuelled cookstoves would reduce pneumonia incidence in young children.

The results, published in the Lancet found no evidence that an intervention comprising cleaner burning biomass-fuelled cookstoves reduced the risk of pneumonia in young children in rural Malawi. Researchers called for effective strategies to reduce the adverse health effects of household air pollution.

The screenshot shows the Lancet website interface. At the top, the title 'THE LANCET' is prominent. Below it, navigation links include 'Online First', 'Current Issue', 'All Issues', 'Special Issues', 'Multimedia', and 'Information for Authors'. A search bar is present with 'All Content' selected. The article title is displayed in a large font, followed by the authors' names: 'Dr Kevin Mortimer, PhD, Chifundo B Ndamala, Dip, Andrew W Naunje, Jullita Malava, MPH, Cynthia Katundu, Dip, William Weston, MBChB, Deborah Havens, DO, Daniel Pope, PhD, Prof Nigel G Bruce, PhD, Prof Moffat Nyirenda, PhD, Prof Duolao Wang, PhD, Amelia Crampin, MPH, Prof Jonathan Grigg, MD, Prof John Balmes, MD, Prof Stephen B Gordon, MD'. The publication date is '06 December 2016'. There are links for 'Open Access', 'Altmetric' (145), and 'CrossMark'. The article is categorized under 'Articles'. On the right side, there are 'Article Options' such as 'PDF (343 KB)', 'Download Images(-ppt)', 'Email Article', 'Add to My Reading List', 'Export Citation', 'Create Citation Alert', 'Cited by in Scopus (0)', and 'Request Permissions'. Below that, there are 'Linked Articles' and 'Related Video' sections. The video thumbnail shows a person cooking over a stove.

The World Health Organisation (WHO) estimates exposure to air pollution from cooking with solid fuels is associated with over 4 million premature deaths worldwide every year including half a million children under the age of 5 years from pneumonia.

<http://www.who.int/mediacentre/factsheets/fs292/en/>

Read the full paper:

A cleaner burning biomass-fuelled cookstove intervention to prevent pneumonia in children under 5 years old in rural Malawi (the Cooking and Pneumonia Study): a cluster randomised controlled trial

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