Abstract #: 1155
Effect of household air pollution on infant and child-mortality in Myanmar

Juwel Rana[1], Nuruzzaman Khan[2], Razia Aliani[3], Rakibul Islam[4]
[1]Department of Public Health, North South University, Dhaka, Bangladesh, [2]School of Medicine and Public Health, Faculty of Health and Medicine, University of Newcastle, Newcastle, Australia, [3]Methods Team, Cochrane Center, Assistance Publique Hopitaux De Paris, Paris, France, [4]Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, Australia

Background: Household air pollution (HAP) from solid fuel use (SFU) for cooking has been considered as a public health threat, particularly for women and children in low and middle-income countries (LMICs), with limited evidence. Hence, this study investigated the effects of HAP on neonatal, infant, and under-five child mortality in Myanmar.
Methods: The cross-sectional study employed data from the Myanmar Demographic and Health Survey (MDHS), the first nationally representative survey conducted in 2016.The sample consists of 3249 ever-married mothers with under-five children in the household with a 98% response rate. HAP (coal and biomass), and level of exposure to HAP (no exposure, moderate and high exposure) were exposures. Outcomes were self-reported neonatal, infant, and under-five mortality.
Results: The prevalence of SFU was 79.0%. The neonatal, infant, and the under-five mortality rates were 26, 45, and 49 per 1,000 live births, respectively. The odds of infant (aOR 2.17, 95% CI: 1.21, 3.88) and under-five child (aOR 2.22, 95% CI: 1.24, 3.95) mortality were higher in households with SFU compared with clean fuel use. When applying an augmented measure of exposure to HAP by incorporating both SFU and the kitchen's location, the likelihoods of infant and under-five mortality were even higher among moderate and highly exposed children compared with unexposed children with similar trends.
Conclusion: Infants and under-five children are at higher risk of mortality from exposure to HAP.
Key messages: Increasing access to cookstoves and clean fuels is imperative to reduce the risk of infants and under-five child mortality in LMICs, including Myanmar.