

# Indoor air pollution puts women of rural Bangladesh at risk of pulmonary diseases

September 26 2016

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Traditional cooking burner Bangladesh. Credit: INASP

Chronic obstructive pulmonary disease (COPD) is one of the leading causes of death in the world. While many cases of COPD are the result of an individual's habitual factors, many people in developing countries suffer from it due to indoor air pollution caused by poor housing and inappropriate cooking fuels.

Medical research carried out in Bangladesh has linked the high prevalence of COPD among women of rural Bangladesh to wide use of biomass for cooking in poorly ventilated kitchens.

An article titled Indoor Biomass Fuel Smoke Exposure as a Risk Factor for Chronic Obstructive Pulmonary Disease (COPD) for Women of Rural Bangladesh, published in *Chattagram Maa-O-Shishu Hospital Medical College Journal*, has concluded that COPD among rural women in Bangladesh is associated with the smoke from indoor biomass fuel.

The study was carried out among 250 women over 40 years of age living in five Upazillas (sub-districts) in Chittagong, Bangladesh. One in five women (20.4%) in the study had COPD.

Most of the households in the study area used biomass, which included wood, cow dung and charcoal, for cooking while some used natural gas or LPG (liquefied petroleum gas). The prevalence of COPD among women using biomass was significantly higher (16.4%) than women using LPG (4%).

Dr. Rajat Sanker Roy Biswas, author of the article and Resident Physician in Chattagram Maa Shishu-O-General Hospital, Bangladesh, explained: "I carried out the research because I found many non-smoking women being admitted to the hospital with COPD".

"Rural women in Bangladesh neglect their health issues, so cooking is done mainly indoors with an open-fire traditional cooking stove, in a small adobe kitchen with a roof made of wood or grass, with or without any ventilation", Dr Biswas added.

Biomass smoke contains many pollutants and exposure to it causes several diseases including acute respiratory infections (ARI), middle ear infection, chronic [obstructive pulmonary disease](#) (COPD), lung cancer,

asthma, cancer of the nasopharynx and larynx, tuberculosis, perinatal conditions and low birth weight, and eye diseases such as cataracts and blindness.

The author has recommended use of cleaner fuel, use of burners or stoves that release less smoke from the combustion and regular respiratory health check ups of rural women who use biomass for cooking.

**More information:** Rajat Sanker Roy Biswas et al. Indoor Biomass Fuel Smoke Exposure as a Risk Factor for Chronic Obstructive Pulmonary Disease (COPD) for Women of Rural Bangladesh, *Chattagram Maa-O-Shishu Hospital Medical College Journal* (2016). DOI: [10.3329/cmshmcj.v15i1.28753](https://doi.org/10.3329/cmshmcj.v15i1.28753)

Provided by INASP

Citation: Indoor air pollution puts women of rural Bangladesh at risk of pulmonary diseases (2016, September 26) retrieved 19 April 2024 from <https://medicalxpress.com/news/2016-09-indoor-air-pollution-women-rural.html>

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