

## **Solid Fuel Use in Kitchen and Child Health in India**

**Debolina Dey and Aparajita Chattopadhyay**

*Half of the world population uses solid fuel to meet its energy needs. Indoor air pollution from them is a significant source of public health hazard, particularly to the poor and vulnerable women and children. Though many studies exist on kitchen fuel and child morbidity, there exists limited literature on open chullah facilitates with chimney and without chimney as well as its effect on child morbidity and nutrition. This study analyzes the different types of solid fuels with respect to the place of residence and explores the impact of solid fuel use with or without chimney on child health. Findings suggest that the chances of using solid fuel varied widely across the place of residence and also show a high correlation between solid fuel use and higher incidence of respiratory illness. Mode of solid fuel use has tremendous impact on health indices. As the transition from solid fuel to clean fuel use takes longer time, it is essential to promote use of solid fuel with chimney as a short term goal to improve child health.*

### **Introduction**

Until the eighteenth century, food was cooked on an open fire. One half of the world population, and up to 95 per cent population in poor countries, continues to rely on solid fuels including biomass fuels (wood, dung and agricultural residues), coal and kerosene to meet its energy needs till date. Cooking with solid fuels in open fires or in traditional stoves generates high levels of health damaging pollutants such as respirable particulate matter, carbon monoxide, (CO), nitrogen oxides, formaldehyde, benzene, polycyclic aromatic hydrocarbons and other toxic organic compounds. In developing countries including India biomass fuels are an important source of cooking and space heating for rural and for a significant portion of urban households. Cooking is often done under poorly ventilated conditions. Besides, most households do not have a separate room for kitchen and cooking stoves are used for several hours each day which generates significant indoor pollution.

Life in a typical Indian household revolves around the cooking area. Females spend considerable time in cooking and maintaining kitchen while

---

Debolina Dey, Research Scholar, International Institute for Population Sciences (IIPS), Deonar, Mumbai 400088, Email: bhaumikdebolina@gmail.com  
Aparajita Chattopadhyay, Assistant Professor, International Institute for Population Sciences (IIPS), Deonar, Mumbai 400088, Email: apachat@rediffmail.com