# The Study of an Effect of Improved Cookstove on the Incidence of Childhood Pneumonia

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**Background**

The improved cookstove is expected to improve the indoor air quality. The significance of having these smokeless stoves in reducing the incidence of pneumonia has not been studied prospectively. Hence, the present study was intended to find out the effect of smokeless cooking stove in reduction of pneumonia episodes in remote district of Nepal where the indoor air pollution is very high.

**Methods**

It was prospective study. The study population was children under five years of age. The area with high concentration of improved stove, Patmara and Bumra VDCs were selected purposively for the study. A standard household survey questionnaire was developed. Data was analyzed by using latest computer software Statistical package for Social Sciences window version by transporting database file from ***dbase IV***.

**Results**

The findings revealed an increased risk of pneumonia in stove type 2 i.e. traditional stove (RR=1.37 for episode and 1.23 for case) indicating that there is significantly increased risk of pneumonia in the use of traditional stove both in term of frequency and severity. The installation and use of improved cookstove can reduce risk of childhood pneumonia. Parental tobacco smoking was significantly associated with childhood pneumonia.

**Conclusions**

Large scale intervention study with status of the accurate measurement of the pollutants and eliminating of other confounder is needed.

**Keywords:** children under five; improved cookstove; pneumonia; traditional stove.