

LETTER TO EDITOR

**CORRELATES OF SELF-REPORTED LIFETIME PNEUMONIA
PREVALENCE IN ADULT PAKISTANI POPULATION**

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Pneumonia is a disease of the respiratory system in which alveoli become inflamed with an accumulation of fluid. It is caused by a host of microorganisms including bacteria, parasites, viruses and fungi¹. It is more common in children and elderly; leading to high disease and resultant cost burden on the healthcare delivery system²⁻³.

To describe, age gender, literacy and residency status associated with self reported lifetime pneumonia in adults and its prevalence in Pakistan, we used data from the National Health Survey of Pakistan (NHSP) 1990-94; with written permission from the federal Ministry of Health, Islamabad. We selected all the adults aged 26 and above who responded to the question 'Have you ever had pneumonia?' Individuals responding affirmatively to this question were identified as ever having had pneumonia. A two-stage stratified sample design was adopted for NHSP⁴. Design-based analysis with SUDAAN 9.01 was done using Logistic regression, Odds Ratios (OR) were computed for the association of self reported pneumonia with various demographic variables.

The overall prevalence of lifetime pneumonia was 10%, and 95% Confidence Interval (CI) was 08%, 12% (n = 5794). In males prevalence of pneumonia was 8%, 95% CI 6%, 10%, while prevalence in females was 11%, 95% CI 8%, 14%. In the 26 – 40 year old adults, prevalence of pneumonia was 8%, 95% CI 7%, 10%. Age gradient was observed, as 26 - 40 year old age group had prevalence of 8%, 95% CI 6%, 10%, in 41 – 55 age group prevalence was 10%, 95% CI 7% , 13%, while in the 56 and above age group prevalence was 13%, 95% CI 10%, 16%.

Adults with pneumonia were more likely to be in the age group of 41 to 55 years (OR 1.30, 95% CI 1.05, 1.60), and 56 years and above group (OR 1.79, 95% CI 1.32, 2.42) compared to 26-40 year age group. Females were almost half as likely to report pneumonia compared to males (OR 0.66, 95% CI 0.49, 0.87). Adults with pneumonia were more likely to be rural dwellers (OR 1.39) compared to urban dwellers but this association was not statistically significant; no statistically significant differences were found between literate adults (defined as being able to read and write) and illiterate adults. Results of Hosmer-Lemeshow goodness-of-fit tests using Wald F and Chi-Square conclude that the model was a good fit for the data.

The results of this unique nationally representative survey, demonstrate that rural men above the age of 40 years were most likely to report ever having had pneumonia; public health education efforts at limiting pneumonia, early diagnosis and treatment would be particularly beneficial for this demographic group in the country in addition to professional education of primary care physicians to keep their index of suspicion high when dealing with this population group.

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