

Implementation of smoke-free legislation in Malaysia: are adolescents protected from respiratory health effects?

ABSTRACT

Background: This study aimed to examine the relationship between respiratory health of Malaysian adolescents with secondhand smoke (SHS) exposure and smoke-free legislation (SFL) implementation. **Materials and Methods:** A total of 898 students from 21 schools across comprehensive- and partial-SFL states were recruited. SHS exposures and respiratory symptoms were assessed via questionnaire. Prenatal and postnatal SHS exposure information was obtained from parental-completed questionnaire. **Results:** The prevalence of respiratory symptoms was: 11.9% ever wheeze, 5.6% current wheeze, 22.3% exercise-induced wheeze, 12.4% nocturnal cough, and 13.1% self-reported asthma. SHS exposure was most frequently reported in restaurants. Hierarchical logistic regression indicates living in a comprehensive-SFL state was not associated with a lower risk of reporting asthma symptoms. SHS exposure in public transport was linked to increased risk for wheeze (Adjusted Odds Ratio (AOR) 16.6; 95%confidence interval (CI), 2.69-101.7) and current wheezing (AOR 24.6; 95%CI, 3.53-171.8). **Conclusions:** Adolescents continue to be exposed to SHS in a range of public venues in both comprehensive- and partial-SFL states. Respiratory symptoms are common among those reporting SHS exposure on public transportation. Non-compliance with SFL appears to be frequent in many venues across Malaysia and enforcement should be given priority in order to reduce exposure.

Keyword: Environmental tobacco smoke; Wheezing; Youth; Smoke restriction; Smoking ban; Malaysia