

## **Second-hand smoke in public spaces: how effective has partial smoke-free legislation been in Malaysia?**

### **Abstract**

**BACKGROUND:** This study was performed to gather data on second-hand smoke (SHS) concentrations in a range of public venues following the implementation of partial Smoke-Free Legislation in Malaysia in 2004. **MATERIALS AND METHODS:** PM<sub>2.5</sub> was measured as a marker of SHS levels in a total of 61 restaurants, entertainment centres, internet cafes and pubs in Kuala Lumpur, Malaysia. **RESULTS:** Under the current smoke-free laws smoking was prohibited in 42 of the 61 premises. Active smoking was observed in nearly one-third (n=12) of these. For premises where smoking was prohibited and no active smoking observed, the mean (standard deviation) indoor PM<sub>2.5</sub> concentration was 33.4 (23.8) µg/m<sup>3</sup> compared to 187.1 (135.1) µg/m<sup>3</sup> in premises where smoking was observed. The highest mean PM<sub>2.5</sub> was observed in pubs [361.5 (199.3) µg/m<sup>3</sup>]. **CONCLUSIONS:** This study provides evidence of high levels of SHS across a range of hospitality venues, including about one-third of those where smoking is prohibited, despite 8 years of smoke-free legislation. Compliance with the legislation appeared to be particularly poor in entertainment centres and internet cafes. Workers and non-smoking patrons continue to be exposed to high concentrations of SHS within the hospitality industry in Malaysia and there is an urgent need for increased enforcement of existing legislation and consideration of more comprehensive laws to protect health.

**Keyword:** Hospitality spaces; Smoke-free legislation; Indoor air pollution; Secondhand smoke