

Featured Research Studies

Trans R Soc Trop Med Hyg.
2008 Sep;102(9):843-51.
Epub 2008 Jul 17.

Indoor air pollution from biomass fuel smoke is a major health concern in the developing world.

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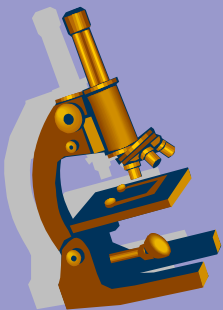
One-third of the world's population burn organic material such as wood, dung or charcoal (biomass fuel) for cooking, heating and lighting.

This form of energy usage is associated with high levels of indoor air pollution and an increase in the incidence of respiratory infections, including pneumonia, tuberculosis and chronic obstructive pulmonary disease, low birthweight, cataracts, cardiovascular events and all-cause mortality both in adults and children.

The mechanisms behind these associations are not fully understood.

This review summarises the available information on biomass fuel use and health, highlighting the current gaps in knowledge.

PMID: 18639310 [PubMed - in process]



Rev Port Pneumol. 2008 Jul-Aug;14(4):487-507.

Indoor air quality and respiratory symptoms in Porto schools.

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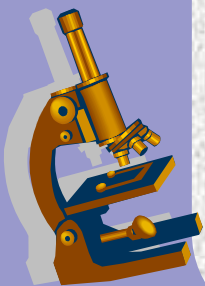
AIM: To evaluate the association between the indoor air quality in Porto schools and the prevalence of allergic and respiratory symptoms in adolescents.

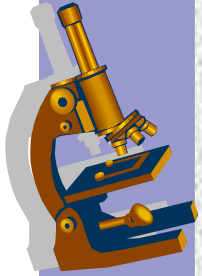
MATERIAL AND METHODS: Temperature, relative humidity, carbon dioxide (CO₂) and volatile organic compound (VOC) concentrations were evaluated in nine Porto schools. Questionnaires were distributed to 9 classes of 7th, 8th and 9th year students in each school, total 1607 adolescents, with a mean age of 14.0 years (standard deviation=0.3). Information was collected on participants' socio-demographic and social characteristics, behaviour, and housing conditions. The International Study of Asthma and Allergies in Childhood (ISAAC) questionnaire was used to evaluate respiratory symptoms.

RESULTS: 5.8% of participants stated they had had asthma, 9.2% wheezing, 22.0% sneezing and 6.6% itchy rash in the 12 months preceding the evaluation. After adjustment for parental educational attainment level, CO₂ > 2100 ppm values were associated with exercise-induced wheeze [OR=1.86 (95% CI:1.20-2.89)] and night cough [OR=1.40 (4.20-2.89)]. We observed an increasing odds ratio in wheezing symptoms over the last 12 months, in asthma 'at some point' and asthma over the last 12 months, and night cough at schools with higher VOC values. The association was not statistically significant, however.

CONCLUSION: Lower indicators of indoor air quality, particularly CO₂, were associated with a greater respiratory symptomatology.

PMID: 18622526 [PubMed - in process]





Hawaii Med J. 2008 Jun;67(6):149-55

Hawai'i air quality monitoring assessment: some effects of Hawai'i's smoke-free work and public places law.

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In November 2006, the Smoke-Free Work and Public Places Law passed to protect people from secondhand smoke in Hawai'i. An air-quality monitoring assessment to determine the difference this law made in air quality was conducted at 15 bars/restaurants. Levels of particulate matter (PM2.5) at enclosed (indoor) venues fell 90% after implementation of the law while partially enclosed restaurants/bars were all below the EPA 24 hour average limit both before and after the law.

PMID: 18678206 [PubMed - in process]

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