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Morbidity and Mortality in Children Associated with the Use of Tobacco Products by Other People

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This study provides estimates of the numbers of children who are harmed by household smoking.

Ear Infections

Thirtytwo studies concerning ear infections and parental smoking have been published since 1979. Exposure to second-hand smoke in children increases the risk of ear infection by 19%, contributing to 354,000 2.2 million ear infections in children each year. Our best estimate places the figure at 1.2 million per year (7% of ear infections).

Tympanostomy Tubes

Tympanostomy tubes are surgically placed in the eardrum to treat recurrent ear infections. Four studies have investigated the risk of tube insertion in relation to household smoking. Such exposure increases the risk of tube surgery by 38%. Exposure to second-hand smoke in children results in 5,200 65,000 procedures annually. Our best estimate is that involuntary smoking is responsible for 86,000 operations per year (14% of tube insertions).

Tonsillectomy and Adenoidectomy

These surgical procedures are frequently performed to treat recurrent ear infections or recurrent tonsillitis. Six studies concerning household smoking and the risk of surgery by 60100% and is responsible for 14,000 21,000 operations annually. Our best estimate is that children's exposure to second-hand smoke is responsible for 18,000 operations per year (20% of tonsillectomy/ adenoidectomy surgery).

Asthma

Thirtytwo studies concerning asthma and household smoking were reviewed. **Involuntary smoking increases the risk of asthma by 43%**, causing between 307,000 and 522,000 cases. Our best estimate is that involuntary smoking has caused 430,000 cases of asthma (11 % of all asthma cases). An estimated 529,000 physician visits for asthma are attributable to household smoking yearly.

Cough

Six studies concerning the risk of cough in children under 15 years of age and household smoking were reviewed. Exposure to household smoking increases the risk of cough by 36%. Involuntary smoking is associated with 1.3 million 2 million doctor visits for cough each year. Our best estimate is that 1.67 million visits for cough each year are due to involuntary smoking (13% of all cough visits).

Bronchitis and Pneumonia

Fourteen studies concerning lower respiratory tract infections and household smoking have been published. Involuntary smoking increases the risk of infection by 46%. It is responsible for 260,000 436,000 cases of bronchitis and 115,000 190 cases of pneumonia each year. Our best estimate is that involuntary smoking causes 350,000 cases of bronchitis and 152,000 cases of pneumonia annually (16% of all lung infections in children under 5).

Deaths due to Respiratory Disease

Eleven studies concerning household smoking and the risk of hospitalization for respiratory illness were reviewed. Involuntary smoking increases the risk hospitalization by 55%. Based on this, we estimate that 136 212 children under age five die each year due to involuntary smoking.

Fire Related Deaths and Injuries

In 1990 children under 18 suffered 148 fatalities and 359 injuries as a result of fires initiated by smoking materials.

Conclusions

Smoking by family members results in nearly 4 million episodes of sickness or surgery in young children each year. Involuntary smoking is an important cause of morbidity and mortality among children and is clearly a cause of asthma and respiratory infections in this age group. No legislative body has recognized the right for children to be protected from the harm caused by involuntary exposure to tobacco smoke. All organizations that provide services to children should guarantee them a smokefree environment at all facilities and events.

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