

workers from exposure to tobacco smoke.

### Method

First, we conducted in-dept interviews with ten employers about the policies that are in place to protect their employees from secondhand smoke. In collaboration with the Fight Against Cancer, the unions, and employer organization, we searched and analyzed company policies and good examples from other EU countries related to tobacco smoke exposure. Second, we developed and tested guidelines and a toolkit with communication and education materials.

### Results

We analyzed 25 company policies and five good practices from other EU countries. There are many good practices/examples. But there is a big difference between corporations. Most companies do not have any policy that protects employees from tobacco smoke exposure. Employers expressed the need for customer awareness, education for employees, and policy guidelines for employers. Together with the partners, we developed and tested guidelines and a toolkit to help employers to raise awareness among costumers, install a smoke-free policy and educate and empower employees.

### Conclusion

A lot of corporations do not have any policy to protect their employees against tobacco smoke. The guidelines and toolkit provide to their needs and encourages them to take action.

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## Burden of disease from exposure to secondhand smoke in children in Europe

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### Background

Second-hand smoke (SHS) exposure at home is a major cause of disease among children. The widely spread of smoking bans in public places in the last decades favored the adoption of voluntary smoking bans in homes.

### Objectives

To quantify the health consequences of such voluntary smoking bans in European Union (EU) countries, we analysed the burden

of diseases from low birth weight, lower respiratory infections, asthma, otitis media and sudden infant death syndrome due to SHS exposure in children and pregnant women in the period 2006-2017.

### Methods

We used the Comparative Risk Assessment method and we estimated the prevalence of household SHS exposure in children and the SHS exposure in pregnant women using a multiple imputation procedure based on the Eurobarometer surveys. Data on mortality and disability adjusted life years (DALYs) were collected using official statistics data and estimates from the Global Burden of Disease study.

### Results

In EU countries SHS exposure in children and in pregnant women stalled in the period 2006-2017, as well as their attributable burden. In 2017 the proportion of deaths and DALYs (on total) attributable to SHS exposure in EU countries was respectively 1.4% and 0.7%, mainly from low birth weight. The highest proportions were estimated in Eastern EU countries, and the lowest in Northern.

### Conclusions

This study suggests that comprehensive smoking ban legislations are able to reduce SHS exposure in homes and its burden in children a few years after the adoption of the legislation. However, in 2017 the burden from SHS exposure in children is still not negligible.

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## Burden of disease from breast cancer attributable to smoking and secondhand smoke exposure in Europe

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### Background

Tobacco smoke is the most important human carcinogen and breast cancer is the leading cause of cancer among women, accounting in 2018 for nearly one in four of all female new cancer diagnoses worldwide, and around 15% of female cancer deaths. Numerous studies have been conducted to evaluate the association between

smoking and breast cancer risk, with conflicting results. The last meta-analysis of all published studies reported significant 10% and 7% increases in breast cancer risk women exposed respectively to smoking and to second-hand smoke (SHS).

### Objectives

Aim of this work is to estimate the number of deaths and disability-adjusted life years (DALYs) from breast cancer attributable to smoking and SHS exposure in the European Union countries in 2017.

### Methods

The impact of smoking and SHS exposure on breast cancer was obtained through the comparative risk assessment method. Population attributable fractions (PAFs) were calculated by applying the relative risks of death from breast cancer to the Smoking Impact Ratio, for the burden from smoking, and to the prevalence of SHS exposure at home estimated from the Eurobarometer survey (allowing a 10-year lag-time) in the SHS burden estimation. The PAFs were then applied to the 2017 number of deaths DALYs estimated from the Global Burden of Disease study.

### Results

In 2017, 60,733 DALYs and 2,719 deaths from breast cancer could have been avoided by removing exposure to smoking in Europe Union. The proportion of DALYs from breast cancer lost respectively from smoking and SHS exposure was 2.2% and 0.4%, although geographically distributed with significant heterogeneity.

### Conclusions

These results are the first estimates of breast cancer burden in women attributable to smoking and SHS exposure for the Europe Union countries. It is important to widespread the link between smoking, SHS exposure and breast cancer, a relationship that is still little known.

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## Health hazards of tobacco curing: A study in Bangladesh

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### Background

Tobacco is being cultivated in selective regions of Bangladesh. Some tobacco companies patronize tobacco cultivation.

### Methods

The study attempted to identify the health hazard of tobacco curing. The study surveyed 285 tobacco households to explore particulars of tobacco curing and measure health cost. For comparing annual health cost, in addition, 174 general crop-producing households were also surveyed. All households were selected randomly from Kushtia, Chuadanga, and Jhenaidah districts of Bangladesh.

### Results

Result showed that all farmers in the region cure tobacco through fire heating in an airtight curing house. In about 98 per cent of cases, the farmer's curing house is located at the homestead within 32 meters mean distance from their home. One shift of

curing requires 72 hours of non-stop firing. Family members cannot sleep well because of the continuous adding of firewood, checking the temperature and the leaves' condition through the night. When green leaves are burnt, strong odour and gases are emitted. Ninety-six per cent of farmers store cured tobacco in their house, including the sleeping room. On average, curing lasts for 54 days, for an average cured tobacco weight of 992 kg. Field experience shows that almost no family members adopt any safety measure. Through inhaling gases and restless work for long days, tobacco family members get sick during and after the curing period. Dizziness, vomiting, insomnia, green tobacco sickness (GTS) etc. were commonly reported by tobacco households. Dried leaves become so thin that sometimes get mixed with food. The yearly average cost of illness and medication for tobacco-growing households was higher than that of general households; by combining both, average annual health costs were 14024 BDT and 9483 BDT (84 BDT about 1 US\$), respectively. So, tobacco growing households incurred 4540 BDT more cost than general crop producers, and it is statistically significant.

### Conclusions

Appropriate safety measures need to be ensured by tobacco companies and/or government for tobacco growing households.

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## Smokers' and non-smokers' receptivity to smoke-free air policies and related messaging in support and opposition in Armenia and Georgia

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### Background

Public smoke-free policies are effective in reducing smoking prevalence and secondhand smoke exposure (SHSe). Armenia and Georgia have high smoking rates in men (>50%), high SHSe rates (>40%),