Question: Do smoking bans by legislation translate into health benefits for secondhand smokers?

Conclusion: Legislative smoking ban leads to improved health outcomes through reduction in secondhand smoking at a national level.

Objective: To assess the effects of legislative smoking bans on
1. morbidity and mortality from exposure to secondhand smoke
2. smoking prevalence and tobacco consumption.

Smoking bans- what are the issues?
- Tobacco is the second major cause of mortality in the world
- Negative health effects associated with exposure to secondhand smoking include lung cancer, cardiovascular disease, asthma, and other significant health outcomes such as low birth weight in babies of nonsmokers
- Many countries have introduced comprehensive national policies banning smoking in indoor public places and work places since 2005
- Policy makers prefer not to interfere with civil liberty rights for those who smoke.
- It is the harmful effect of passive smoking in nonsmokers that justifies the policy action
- The evidence on improved health outcomes arising from the enactment of smoking bans could therefore be critical for a wider, comprehensive roll-out of such bans.

Key findings of this review
77 studies from 21 countries (mostly from Europe, the Americas and Australia) contributed data for the review.

Types of study designs included?
0 RCTs, 36 interrupted time series, 23 controlled before-after, and 18 before-after without control.

What Intervention?
Legislative smoking bans in all settings (comprehensive) or restricted to designated areas (partial), implemented at national/ state / local level.

What was the effect on key outcomes?
- Reduced admissions for acute coronary syndrome.*
- reduced mortality from smoking-related illnesses*
- No conclusions could be drawn on smoking prevalence and tobacco consumption.

What is the quality of this evidence?
*Moderate to low quality evidence.
Legislative smoking ban to improve secondhand smoking related health outcomes at a national level

This data is based on the Summary of Findings table from this Cochrane systematic review.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Effect of Intervention (Comprehensive or partial smoking bans in public places implemented by legislation)</th>
<th>GRADE Quality of evidence*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular health</td>
<td>33 studies (out of 43 studies evaluated) detected <strong>significant associations between introduction of bans and reductions in incidence of cardiovascular events</strong> (acute myocardial infarction and acute coronary syndrome). 6 studies evaluated stroke incidence; 5 detected significant associations between introduction of bans and reductions in events.</td>
<td>Moderate</td>
</tr>
<tr>
<td>Mortality</td>
<td>8 studies detected <strong>significant association between introduction of bans and reduced smoking-related mortality</strong>. (11 studies included)</td>
<td>Low</td>
</tr>
</tbody>
</table>

*What does the GRADE quality of evidence mean?*

- **High**: Further research is very unlikely to change our confidence in the estimate of effect.
- **Moderate**: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
- **Low**: Further research is very likely to have an important impact on our estimate of effect, and may change the estimate.
- **Very low**: We are very uncertain about the estimate.

**More information**

*This Evidence Update is only a summary of the key findings of the following Cochrane systematic review. For details, please read the full text:*  

What is a systematic review?  
A systematic review seeks to answer a well formulated and specific question by identifying, critically appraising, and summarising the results of all relevant trials, published and unpublished, according to pre-stated and transparent methods.

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How has the quality of evidence been assessed?  
The GRADE system ([http://www.gradeworkinggroup.org/intro.htm](http://www.gradeworkinggroup.org/intro.htm)) considers ‘quality’ to be a judgment of the extent to which we can be confident that the estimates of effect of intervention are correct. The quality of evidence is graded after full consideration of the risk of bias of the studies, the directness (or applicability) of the evidence, the consistency and the precision of the results.

**This Evidence Update has been prepared by Cochrane South Asia, March 2016**

Evidence Updates can be distributed free of charge. Please acknowledge the source of data as appropriate.

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