

The effects of second hand smoke on children

St George's researchers published a series of reviews in the late 1990s that linked parental smoking with poor respiratory health in infancy and childhood. This research, which has continued to be revised, has played a major role in influencing public health policy in both the UK and the United States, including the introduction of smoke-free workplaces and public health campaigns encouraging parents not to smoke around their children.



Background

In the late 1990s, Professors Derek Cook, Ross Anderson and David Strachan conducted reviews of the epidemiological evidence linking parental smoking with adverse respiratory health effects in infancy and childhood.

These reviews were published as a series of nine peer-reviewed papers in *Thorax*, one of the world's leading respiratory journals. These showed strong statistical evidence that second hand smoke can have a negative effect on children's health.

Professors Cook and Strachan also found a consistent pattern for respiratory illnesses and middle ear disease with odds ratios of between 1.2 and 1.6 for either parent smoking, the risks usually being higher in pre-school than in school aged children.

For sudden infant death syndrome the odds ratio for maternal smoking was higher at about 2.0. Significant adverse effects from paternal smoking suggested a causal role for postnatal exposure to environmental tobacco smoke, independent of any prenatal effects of maternal smoking in pregnancy.

These meta-analyses were updated for the US Surgeon-General's report on *Secondhand Smoking*, published in 2006, and updated again in 2010 for the UK Royal College of Physicians' report on *Passive Smoking and Children*.

Impact

This research was reported to the Department of Health's Standing Committee on Tobacco and Health (SCOTH) and contributed to the growing prominence of the adverse health effects of second hand smoke in public health policy in the 21st century, including the introduction of smoke free workplaces, including pubs and restaurants, and major national public health campaigns.

This report has influenced the US Environmental Protection Agency's smoke-free homes and cars campaign and legislation passed since 2008 to ban smoking in vehicles when children are present in several US states.