

# Wednesday 10 August 2011

## Parallel session 5

### 5.1 GLOBAL HEALTH

Chair: Dr Laurence Gruer, UK

#### 05-1 SMOKE-FREE LEGISLATION: GLOBAL REACH, IMPACT AND REMAINING CHALLENGES

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In recent years, legislation prohibiting or restricting smoking in public places (smoke-free legislation) has been enacted in an increasing number of countries. Where the effects of the legislation have been evaluated, most notably in Scotland, it has been found to have had very positive effects, measurably reducing the exposure of non-smokers to secondhand smoke and resulting in unexpectedly large and wide-ranging benefits for population health.

This symposium starts with an overview of the current extent of implementation of smoke-free legislation around the world, given by Dr Douglas Bettcher, Director of the Tobacco-free Initiative, WHO Geneva. Professor Sally Haw from the University of Stirling, Scotland will then summarise the evidence for the health and social impact of smoke-free legislation, obtained from evaluation studies in Scotland and other countries.

While these results show that smoke-free legislation can be a remarkably effective and cost-effective public health intervention, the political and social obstacles to introducing and implementing smoke-free legislation can be considerable. Dr Esteve Fernandez, Director of the Tobacco Control Research Programme, Barcelona, will describe the experience in Spain where partial and relatively ineffective legislation has recently been followed by a much more comprehensive ban. Finally, Professor Nuntavarn Vichit-Vadakan, Dean of the Faculty of Public Health, Thammasat University, Thailand will review the variable progress in low and middle income countries and discuss the substantial challenges which remain to be overcome before involuntary exposure to other people's tobacco smoke can become a thing of the past.

#### 05-1.1 UPDATE ON GLOBAL IMPLEMENTATION OF SMOKE-FREE LEGISLATION

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The scientific evidence for the negative impacts on health from tobacco smoking is well established. Smoke-free laws provide protection both for smokers, by reducing their consumption and de-normalising smoking in the community, and non-smokers by reducing their exposure to harmful chemicals—exposures that result in a death every 6 s. Article 8 of the WHO FCTC and its associated guideline provide the framework for smoke-free legislation in countries. Once enacted, smoke-free laws require strong enforcement and public support to achieve high compliance.

The presentation will provide a global update on the number of countries that have legislation in place, and whether the legislation effectively provides indoor smoke free environments. This analysis has been conducted for a variety of public places including health-care facilities, universities, other educational facilities, government facilities, indoor offices, restaurants, pubs and bars, and public

transport. Information will also be provided on changes since 2006 in the proportion of the world population effectively protected by smoke-free legislation.

WHO supported school-based (Global Youth Tobacco Surveys) and adult household surveys (Global Adult Tobacco Survey) have been undertaken to measure and monitor the level of support for legislation in various countries. Results from these surveys as well as standardised ways for future monitoring of compliance with smoke-free laws will also be presented.

#### 05-1.2 CAN SMOKING BANS LEAD TO SUSTAINED IMPROVEMENTS IN POPULATION HEALTH? AN OVERVIEW OF THE EVIDENCE

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Over the past decade, bans on smoking in enclosed public places have been introduced in many states in the US and provinces in Canada, and a growing number of European countries, including Scotland.

Evidence from Scotland and other jurisdictions clearly indicates that when compliance is high, implementation of comprehensive legislation is accompanied by dramatic reductions in worker exposure to secondhand smoke and improvements in respiratory symptoms among both non-smoking and smoking workers alike. Studies have also found population level reductions in secondhand smoke exposure among both adults and children and this has been accompanied by measurable improvements in population health including reductions in hospital admissions for acute myocardial infarction and asthma. The magnitude of the health improvement varies, but a recent meta-analysis of 17 studies found a pooled risk reduction for acute myocardial infarction of 10% (95% CI 6 to 14%) following implementation of smoke-free legislation. While some of the observed risk reduction for heart attack is likely to be associated with behaviour change among smokers (a number of studies report both a reduction in smoking prevalence in the general population and tobacco consumption in those who continue to smoke, post-legislation), a prospective study of admissions for acute coronary syndrome, found that 67% of heart attacks averted were among non-smokers.

In this paper we present an overview of the evidence about the health effects of smoking bans and then go on to consider whether these are simply short-term improvements or are sustained for a number of years after implementation of legislation.

#### 05-1.3 FROM PARTIAL TO COMPREHENSIVE SMOKING BANS: LESSONS FROM SPAIN FOR GLOBAL TOBACCO CONTROL

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Spain was one of the first European countries to implement legislation restricting smoking in public places, banning smoking in enclosed workplaces in 2006. However, the ban did not include bars and restaurants. This type of partial legislation, known from that moment on as the "Spanish model", was strongly supported by advocates of the tobacco industry. At the end of 2010, the Spanish Parliament extended the smoking ban to bars and restaurants, and to some open-air spaces, such as hospital and educational campuses.

We present the story of how Spain moved from a partial to a total ban, with the aim of offering practical lessons for global tobacco control. The process of change had several elements: the scientific evaluation of the impact on secondhand smoke exposure, the increasingly positive social climate and acceptability of smoke-free

places, the drive and determination of key persons within the national and regional public health administration, and the sustained advocacy from scientific societies, professional bodies, trade unions, and citizens' associations. After a year of review and debate at different levels, the Spanish Parliament changed the partial ban to a total ban, converting Spain to a true smoke-free country from January 2nd, 2011. This change clearly shows that the pressure from the tobacco industry (and some allies in the hospitality sector) can be overcome through combined and continuing actions driven by the different actors involved in tobacco control.

## CHRONIC DISEASE

### 5.2 SOCIAL FACTORS AND CHRONIC DISEASES

#### 05-2.1 IS IT WHERE YOU LIVE OR WHO YOU ARE THAT IS IMPORTANT? AN ANALYSIS OF NEIGHBOURHOOD ENVIRONMENTS, SELF-REPORTED PHYSICAL ACTIVITY AND OVERWEIGHT / OBESITY IN CANADA'S CAPITAL

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**Background** In Canada, there is limited research examining the effects of objectively measured neighbourhood environments on physical activity (PA) and obesity.

**Purpose** To determine the relationships between variables from built and social environments and PA and overweight / obesity across 86 Ottawa neighbourhoods.

**Methods** Individual-level data including self-reported leisure-time PA, height and weight were examined using a sample of 4727 adults from four combined cycles (years 2001/2003/2005/2007) of the Canadian Community Health Survey. Data on neighbourhood characteristics were obtained from the Ottawa Neighbourhood Study; a large study of neighbourhoods and health in Ottawa. Binomial multivariate multilevel models were used to examine the relationships of environmental and individual variables with PA and overweight / obesity using population weights.

**Results** Approximately 75% of adults were inactive (<12.5 kJ/kg/day) while half were overweight / obese. Results of the multilevel models suggest that higher numbers of convenience stores and fast food outlets in a neighbourhood were associated with increased odds of being overweight / obese, while a larger number of restaurants was associated with lower odds. Season of data collection was significantly associated with PA in men and women with the odds of PA in winter being half that of summer. Intraclass coefficients were low, and identified that the models explained a small proportion of the neighbourhood-level variance in PA and overweight / obesity.

**Conclusions** Findings from this sample identified that recreation and social environments did not exert significant influences on PA or overweight / obesity, however, food outlets did show a significant

influence on female overweight / obesity. The impact of individual-level characteristics to the model was modest.

#### 05-2.2 THE CHANGING CONTRIBUTION OF SMOKING TO EDUCATIONAL DIFFERENCES IN MORTALITY: ESTIMATES FOR FINNISH MEN AND WOMEN FROM 1971 TO 2005

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**Introduction** Major socioeconomic differences in mortality are observed in high income countries. While smoking remains one of the major single causes of mortality, its contribution to levels and trends in socioeconomic differences in mortality remain unclear. We present estimates of the contribution of smoking to educational differences in mortality between 1971 and 2005.

**Methods** Census records linked with death records for all Finns aged 50+ were studied. Smoking attributable mortality is estimated with an indirect method developed by Preston *et al* that uses lung cancer mortality as a proxy for the impact of smoking on mortality from all other causes.

**Results** In the early 1970s smoking attributable deaths constituted about 27% of all male deaths above age 50 and 17% in the 2000s; 1% and 4% among women respectively. At age 50 life-expectancy differentials between men with basic vs high education increased from 3.4 to 4.4 years. In the absence of smoking these differences would have been 1.5 and 3.1 years, 60% and 25% less than those observed. Half of the increase in life-expectancy among men with basic education was attributable to smoking. Among women the contribution of smoking to educational differentials in mortality was negligible in the 1970s but increased to about 10% in the early 2000s.

**Conclusion** Smoking continues to have a major influence on educational differences in mortality among men and its contribution is increasing among women. Anti-smoking efforts can achieve gains in longevity among men and reverse the trend of increasing smoking attributable mortality among women.

#### 05-2.3 A NEW MULTIPLE SCLEROSIS PREVALENCE STUDY IN ABERDEEN CITY, ORKNEY AND SHETLAND

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**Background** Multiple sclerosis (MS) is an inflammatory and degenerative disease of the central nervous system of unknown aetiology. It is the commonest cause of chronic neurological disability in young people. The disease is more common in those of Northern European origin and the highest prevalence rates in the world have