Are there socioeconomic differentials in under-reporting of smoking in pregnancy?

Self-reported smoking status is the primary measure of smoking status for research and policy, providing both a cheaper and more widely accepted indicator than biochemical validation. It is employed in observational studies where analyses seek to explain how socioeconomic background exerts an influence on smoking behaviour. Self-report is used, too, for evaluating the effects of population based tobacco control policies and for assessing progress against national and state level targets to reduce smoking prevalence.

For the general population, self reported measures have been found to provide reliable estimates of smoking status when cotinine validated. Without systematic differentials in under-reporting by socioeconomic group. However, self report is a less reliable measure for the pregnant population, where smokers can feel under greater pressure to describe themselves as non-smokers. For this population, validated prevalence rates have been found to be substantially higher than self reported rates. A related, but neglected, question is whether rates of under-reporting vary between socioeconomic groups.

Answering the question of whether there is a misclassification bias in the primary measure of smoking status in pregnancy is important for smoking research and tobacco control policy. It is particularly important for monitoring socioeconomic trends in smoking in pregnancy, and for evaluating the effectiveness of policies to reduce prevalence in lower socioeconomic groups.

We examined under-reporting by socioeconomic group in a British pregnancy study with information on self report and biochemical smoking status, and on socioeconomic status. The study was based on a national quota survey of 1009 pregnant women in England, conducted in 1999. Participants were located by doorstep screening, with quotas set to match the age and social class profile of the general population of women of childbearing age (15–44 years). Data were collected in home interviews. Rates of current smoking by age and socioeconomic factors were in line with other population surveys. Full details of the sampling and methods are published elsewhere.

Those participants who answered “yes” to the question “Do you smoke cigarettes at all nowadays?” were defined as smokers. Cotinine validation was provided using saliva samples collected at the end of each interview, using standard methods and with cotinine concentration determined by gas chromatography. Dichotomous measures of socioeconomic group were constructed from data on occupation of main earner (non-manual/manual), age left full time education (15–16/17) and housing tenure (owner occupied/rented). χ² was used to test whether differences between self reported and cotinine validated smoking rates differed by socioeconomic group.

A total of 852 respondents (82.5%) provided a saliva sample for cotinine analysis. Of these, 585 (70.3% or 58.0% of the full sample) provided a useable sample. The provision of a saliva sample was not associated with self reported smoking status, age, or socioeconomic group. The optimal cut-off level for discriminating between smokers and non-smokers using saliva cotinine is 14.2 ng/ml. Seventeen non-smokers had values above the cut-off of θ 14 ng/ml.

In line with other studies, validated prevalence rates were higher than self reported rates in all socioeconomic groups (table 1). The proportion of self reported smokers who were reclassified as smokers following cotinine validation was also similar across socioeconomic groups on all measures. There were no significant differences in rates of under-reporting in pregnancy by occupational class, education or tenure (table 1).

Our study suggests that, as in the general population, the use of self reported smoking status will not introduce systematic biases into explanatory studies seeking to understand why there are socioeconomic gradients in smoking in pregnancy. It indicates, too, that, with appropriate adjustment for under-reporting evident in all socioeconomic groups, self reports can be used in policy oriented studies to monitor socioeconomic trends in smoking in pregnancy, and to evaluate the impact of interventions on socioeconomic differentials in smoking status.

A limitation of the study is its sample size and its restriction to one national population. Further studies with appropriate measures of smoking status and socioeconomic status are recommended to confirm the generalisability of our finding.

References

Tobacco control policy: strategies, success, & setbacks


Tobacco control policy

Judging from the title of this work, Tobacco Control Policy, we might think about how the editors would design a different and maybe new policy topology to examine current strategies in tobacco control. That is not their intent. Ostensibly this book is an account of how six countries have advocated for and passed tobacco control policies. The editors believed that if we could hear the stories of how tobacco control was defined, approached and implemented at the national level, from around the world, we would not only learn new strategies but also become more inspired in our work.

The editors created six tobacco control policy case studies—Bangladesh, Brazil, Canada, South Africa, and Thailand—by interviewing 11 contributors who where central figures in their countries’ tobacco control movements. The editors sensed that while we spent hours in conferences learning about the rationale, approaches, and theoretical analysis of tobacco control policy, the rooms sit up when central figures told their behind the scenes stories of how they battled the socio-cultural, political, economic, and scientific odds to effect change to improve the health of their citizens.

Each case study begins with a brief account of the nature and extent of the tobacco use problem in the country and the history of attempts to controlling tobacco use. Tobacco control efforts are then placed in a cultural, political, and economic context so the reader can appreciate barriers that are not always self-evident in our data driven accounts of tobacco control. The authors then address the current climate and most recent and future attempts at tobacco control in their countries. Each account ends with lessons learned so we can transfer some principles and practices to our local contexts at tobacco control.

The editors believe that when we hear the stories, success or failure, from central figures who were involved in effecting change, the information is more indelible and, consequently, more useful for application in tobacco control.

The editors and contributors were disciplined in their accounts of these behind the scenes stories. The narratives were cogent, inspire and do not only say what happened. They experienced simply conveying colour commentary that, while at times may be more interesting, risk political, organisational, or individual bias. However, the work does give just desserts to those central figures or social and health reform groups who made real contributions to effect change, often against all odds. Sometimes these tobacco control contributors, while working hard for the cause, avoid the limelight—during or soon after advocating for change—for politically strategic reasons.

Similarly the case studies were not shy about pointing out what groups were conspicuously absent from proactively advancing tobacco control. For example, in Canada the authors felt that “many of the individuals and organizations with mandates to reduce disease are still playing only a minor role in the efforts to enact healthy public policies on tobacco control” (p 72).

Generally, the lessons learned in each of the cases are about what a seasoned tobacco control advocate would expect, such as the importance of an evidenced based rationale for change, building strong coalitions, identifying a political entrepreneur, media advocacy, strategic public relations, economic connections, and willingness to commit to and persevere for the cause.

I found a major contribution of the project illuminating the nuances of tobacco control as we move through the globe. Seasoned tobacco control advocates can become jaded by the “common thread” lessons mentioned above, but will pause when the authors drill down to expose barriers peculiar to their county.

We learn in this work, for example, that in Bangladesh, the rationale for tobacco control was built on issues of poverty, nutrition, and human rights and not necessarily adverse health effects. The tobacco lobby in Brazil built lobbying strength grossly imbalanced with the crop’s contribution to the national economy. While Poland is considered a developed country, the health effects of cigarette smoking were censored and a high percentage of the population, especially women, still smoked as recent as the late 1980s.

We know that we must be willing to fight for causes in advancing public health policy measures, but in some countries it would be ineffective to not cooperate with the government, even when they are slow to adopt high impact measures. While we are familiar with the adage, all politics is local, Thailand was actually successful in creating a health burden rationale with data from other countries, because they did not have the epidemiological infrastructure to show the smoking and health burden connection.

Reading of these case studies could give tobacco control advocates the stimulus, structure, and useful style to write tobacco control stories at various geopolitical levels. Having participated in such an exercise at the state level, I found this to be not only challenging to get an accurate rendition of our successes and failures in the state, but a useful reflection to identify that there is much more that needs to be done to reduce the burden of tobacco use.

The editors note in the beginning of the book that there are threads and lessons to be learned among these geopolitically disparate countries. They offer these as a laundry list in the beginning of the book and at the end of each chapter. The work could have been stronger if the editors made a final summary of connecting how the common threads and lessons could be applied to future tobacco control efforts.

Some of the case studies could be difficult for the new students of tobacco control to appreciate. The work does succeed in one of the major action steps needed to establish progressive legislation. These include:

- capacity building for success
- identifying strategic legislative approaches
- choosing elements of a comprehensive plan
- drafting the legislation
- identifying and responding to the opposition and obstacles
- fighting the legislative battle
- implementing the laws
- evaluating the laws.

The remainder of the book covers case studies from nine countries—offering some lessons learned—an introduction to the purpose and meaning of international laws, and a brief concluding chapter. The guide is cogently written, so as to not overwhelm the intended users. This should keep the readers interested and facilitate off-the-shelf utilisation of material. However, the contributors provide enough strategic commentary to alert the reader that when lobbying for tobacco control laws, it will take a lot of information gathering, skill, passion, patience, and perseverance.

This book should be a very valuable resource, and perhaps even a textbook for courses in tobacco control. It is written in six languages—an introduction, a rationale for a legislative strategy, and a chapter on terms and concepts in the legislative process, the bulk of the guide addresses the major action steps needed to establish progressive legislation. These include:

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The central chapter of the book, on the essential elements of a comprehensive legislative plan—from product regulation to risk communication to sales—is presented with much confidence because the contributors believe, “We know what works” (p 46). The guide
Tobacco control in the USA and Canada

Although tobacco control is a multidisciplinary field, it is one that is practised by considerably fewer political scientists than health practitioners, lawyers or economists. For that reason alone, Donley Studlar’s examination of the development of tobacco control measures in the USA and Canada is a noteworthy contribution. There are many reasons other than novelty to read and reflect upon this political scientist’s analysis of how similar-but-different nations with similar-but-different constraints adopted similar-but-different public measures and achieved similar-but-different results.

In analysing the flow of policies north and south across the border, this study provides useful explanations for why some ideas are more readily received than others. Professor Studlar thoughtfully presents major differences in US and Canadian political systems, cultures and institutions that impact on tobacco measures. These include contrasting constitutional principles (“peace, order and good government” in Canada and “life, liberty and the pursuit of happiness” in the USA), different political institutions (parliamentary versus congressional), differing electoral realities (American legislators are far more likely to be re-elected and far less beholden to the “party-line”), and differing forms of citizen engagement (Canadian history of “elite accommodation” versus public lobbying in the USA).

Professor Studlar sets out not only to compare and contrast the political response to tobacco over the past century in these two countries, but to draw lessons from the varying experiences, to trace cross border influences, and to project future trends. Along the way, he provides ample narrative and statistical detail and a concise and useful history of tobacco measures in two countries, 10 provinces, and 50 states. He uses this historical detail not so much to tell the story of policymaking as to explore the theories that might explain it. How does tobacco get on the agenda? Who influences government? How do political institutions respond? What types of policy are adopted? How are policy ideas shared?

Evidence base

For the positivist advocate in search of better strategies, this book holds the promise of an evidence base from which better plans can be made. That promise is only somewhat fulfilled, as the reader comes away with a better idea of what transpired than why it happened. There is more information than insight, and not too much to guide policy makers in how to improve their political game. This is, perhaps, not so much a failure of this political scientist as the limitations of political science, even when written as gracefully and accessibly as this study.

“History,” they say, “is written by the victors.” Tobacco control history, it would appear from this work, is written by the advocates. In preparing this book, Professor Studlar interviewed a few dozen individuals working in tobacco control, mostly in non-governmental organisations (NGOs) or government departments. Most policy advances, it would appear he was told, can be credited to the very people he was interviewing. Perhaps the contributions of less vested participants, say a journalist or senior public servant, and less reliance on first person accounts would have provided a more robust, and perhaps more insightful, explanation of how Canada and the USA have moved forward.

Finally, given the very different approaches taken in Canada and the USA on other public issues (universal medicare, gun control, alcohol regulation, death penalty, welfare, public utilities), it is somewhat surprising that Professor Studlar assesses tobacco regulation in the USA and Canada as being headed in the same direction, with “leapfrogging” of similar measures adopted from each other. He does not explain how the differences between nations might allow for very different policy destinations. Perhaps the US tobacco companies will be litigated into bankruptcy before the first major lawsuit winds its way slowly to trial in a less litigious Canada. Perhaps cigarettes will have been totally removed from regular retail outlets (and put into liquor stores) before cigarette advertising at retail level is outlawed in the less regulated USA.

Hopefully, these and other ground-breaking initiatives will soon be the subject of an update to this helpful study.