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# Preface

The *IARC Handbooks on Cancer Prevention* have traditionally presented the scientific evidence on the effects of interventions, such as sun protection or dietary chemoprevention, on preventing cancer, as well as the evaluation of the strength of the evidence in addressing the alleged protective effect.

In Volume 11, the first dedicated to tobacco control, the effects of smoking cessation on the risk of developing or dying of cancer, cardiovascular diseases, or chronic obstructive pulmonary disease were examined. In that volume, the health benefits of quitting smoking were investigated by comparing epidemiological studies reporting the risk of disease in never, former, and current smokers, as well as differences in risk with length of smoking abstinence, when available. An evaluation of the weight of the evidence was given for each disease contemplated.

For IARC, Volume 11 was exceptional in including disease outcomes other than cancer. Given the prominent etiologic position of smoking in other disease outcomes, limiting the review to cancer would have given a partial picture of the benefits derived from quitting smoking. How individuals overcome the smoking habit to achieve sustained abstinence has not

been covered in the Handbooks. However, we know from numerous publications that one way of inducing quitting in a proportion of the population of smokers is through policy measures, implemented by local, regional, and/or national governments, intended to reduce both the number of smokers and the amount smoked in persistent users (e.g. by increasing the cost of tobacco products through the use of pricing and taxation policies). Interventions, which have been implemented at the individual and societal level to control the use of tobacco and concomitant health effects, have been adopted at different paces and with varying degrees of comprehensiveness in countries around the world, generating an irregular response to the tobacco epidemic. These interventions have included, to list a few, total or partial bans on smoking in work and public places; suppression of tobacco advertising, promotion, and sponsorship; anti-tobacco education and communication campaigns to raise awareness; changes to tobacco product labeling; and smoking cessation services.

A global, coordinated effort to use legislation and associated programmes to arrest the tobacco use epidemic is now led by the World Health Organization

through the Framework Convention on Tobacco Control (WHO FCTC). The WHO FCTC encompasses a range of measures, in their totality representing a comprehensive approach designed to control tobacco use and supply. The body of policies stipulated in the WHO FCTC treaty became binding international law on February 27, 2005. Of the 38 articles, articles 6 to 14 cover policy interventions directed at preventing tobacco use, decreasing consumption, reducing toxicity, protecting non-smokers, and diminishing tobacco use initiation. Articles 15 to 17 relate to measures controlling the availability of tobacco (WHO, 2003). In other words, the policies are a series of measures conceived to counteract multiple domains of tobacco availability and use. The joint observance of the treaty by countries around the world will make it a global response to the tobacco epidemic. However, the reach of the policy interventions included in the WHO FCTC will depend on how effectively countries formulate and implement these policies. As of November 7, 2008, 161 countries have become parties to the treaty (<http://www.who.int/tobacco/framework/en/index.html>; accessed November 10, 2008).

The FCTC has propelled tobacco control into a new era, as

countries all over the world incorporate its policies and recommendations into their own laws. As tobacco control policies are formulated and implemented, it is important that they undergo rigorous evaluation. In the same way that evidence-based medicine has been built from thorough evaluation of treatment options, evidence-based public health must build on a database of rigorous evaluations of public health policies. Such knowledge will allow implementation of the most powerful policy interventions, and will do so in ways that will maximize their effectiveness.

Towards this goal, IARC convened a working group of international tobacco control experts from March 12-19, 2007 to propose a framework for guiding the evaluation of tobacco control policies expected to be formulated worldwide in response to WHO FCTC. Four broad questions were considered by the working group, each with several more specific related sub-questions, to guide the review of the scientific literature on the methods and measures of tobacco policy evaluation. The broad questions cover how the effects of a policy are determined, the core constructs for understanding how and why a given

policy works, the potential moderator variables to consider when evaluating a given policy, and the data sources that might be useful for evaluation.

The working group proposed a common conceptual framework to guide future FCTC policy evaluation, specifying two levels of mediating variables: those specific to the policy, and those that are part of more general pathways to the outcomes of interest. It also accepted that various other factors (moderators) might affect the size of the effect, and recognized the possibility of effects incidental to those an intervention is designed to produce. Given the already well-established relationship between tobacco use and disease, and the lag time between reductions in tobacco use prevalence and observed reductions in disease outcomes, this *Handbook (Volume 12)* recommends that tobacco use be utilized as the appropriate endpoint for most policy evaluations. The group elaborated on the model most completely for tobacco use outcomes, but it was also applied to policies affecting product harmfulness.

Included in this *Handbook* are logic models outlining relevant constructs for evaluating the

effectiveness of policies on tobacco taxation, smoke-free environments, tobacco product regulations, limits on tobacco marketing communications, product labeling, anti-tobacco public communication campaigns, and tobacco use cessation interventions. Additionally, it provides examples of measures used to assess key constructs, with special attention to measurement issues with survey methods. Also provided are descriptions of sources of data on tobacco control policies, tobacco production and trade, and repositories of youth and adult surveillance surveys. These sources of information are particularly important for making comparisons between countries, and in some cases can be used to demonstrate the impact of policies, although not the mechanisms by which they occur. Thus, **Volume 12** is offered as a guide to evaluators in the field, and consequently a frame for future IARC *Handbooks* that focus on evaluating the impacts of societal level interventions to control cancer, and other preventable diseases, caused by tobacco use.