

1 Draft Summary Statement (March 24, 2007)

2 ***Methods for evaluating tobacco control policies***

3 IARC Handbook on Tobacco Control No. 2

4 Summary statement from the Working Group

5 6 **Background and introduction**

7 In the 20th century, cigarette smoking caused an estimated 100 million deaths
8 worldwide. Most of these deaths were in developed countries of the world where cigarette
9 smoking first became popular in the 1920's to 1940's. This resulted in an epidemic of
10 smoking induced cancer, heart disease, and COPD deaths. Cigarette smoking is not only the
11 most prevalent form of tobacco use it is also among the most harmful, with it killing one in
12 two long term users prematurely. In 2000, tobacco was responsible for approximately 4.83
13 million deaths, evenly divided between the industrialised and developing worlds (Ezzati M,
14 Lopez AD. Estimates of global mortality attributable to smoking in 2000. *Lancet*, 2003,
15 362(9387):847-52). If current trends continue, it will cause some 10 million deaths each year
16 by 2030 (see table below), around 70% in the developing world (Ezzati M, Lopez AD.
17 Regional, disease specific patterns of smoking-attributable mortality in 2000. [Tobacco](#)
18 [Control](#). 2004,13(4):388-95). . In the 21st century, if current usage patterns persist, smoking
19 will cause approximately 1,000,000,000 deaths, a tenfold increase over the previous century
20 (Gajalakshmi CK, Jha P, Ranson K, Nguyen S. Global patterns of smoking and smoking
21 attributable mortality, In Jha P, Chaloupka, Frank J. (editors):*Curbing the Epidemic :*
22 *Governments and the Economics of Tobacco Control*. Washington DC: THE WORLD
23 BANK, WASHINGTON D.C., 1999, pp 11-39.).). A substantial fraction of these expected
24 deaths could be averted by efforts to discourage tobacco use and assist those addicted to
25 tobacco to quit (IARC Handbook 1, Volume 11, Health Benefits of Stopping Smoking).

	Tobacco deaths 2000	Tobacco deaths 2030
Developed	2.43 million	3 million
Developing	2.41 million	7 million

26 Source: Ezzati M, Lopez A. Regional, disease specific patterns of smoking-attributable
27 mortality in 2000. [Tobacco Control](#). 2004,13(4):388-95. .

1 ***Tobacco is a plant containing the psychoactive and addictive drug***
2 ***nicotine. It has a long history of use and has been used in a wide***
3 ***variety of forms, most of which still occur on the Indian***
4 ***subcontinent. The two main forms of tobacco use are by smoking***
5 ***and by chewing or parking wads of tobacco in the mouth and***
6 ***allowing the active ingredients to be absorbed (smokeless use).***
7 ***The harms from tobacco use are mainly from long-term use,***
8 ***something that is made more likely by the addictive nature of the***
9 ***product. Nicotine is the main psychoactive ingredient of tobacco,***
10 ***and the source of its addictiveness, but is otherwise a minor***
11 ***contributor to the harm (Benowitz NL. Nicotine Safety and***
12 ***Toxicity. New York, New York: Oxford University Press, 1999.).***
13 ***Most of the harm is due to other toxins in tobacco smoke and to a***
14 ***lesser extent, in the tobacco itself (IARC Monograph #83, Tobacco***
15 ***Smoke and Involuntary Smoking. 2004). Over the 20th century, the***
16 ***use of cigarettes, primarily factory, made has come to dominate***
17 ***both the smoked and overall markets in nearly all countries. It is***
18 ***also the product that has been the focus of most of the research.***
19 ***The use of other forms of smoking is of minor importance, except***
20 ***in some areas particularly the Indian sub-continent. All forms of***
21 ***smoked tobacco are extremely dangerous to health, and there has***
22 ***been no major progress towards creating less toxic versions of***
23 ***these products that are sufficiently acceptable to consumers to be***
24 ***successfully marketed. Smokeless tobacco, which is generally***
25 ***less harmful than smoked tobacco is not used in many parts of the***
26 ***world, but use is significant and increasing in other parts (e.g.,***
27 ***Sweden) (Foulds J, Ramstrom L, Burke M, Fagerström K. Effect of***
28 ***smokeless tobacco (snus) on smoking and public health in***
29 ***Sweden. Tobacco Control 2003, 12:349-59). With some forms of***

1 **smokeless tobacco there has been success in reducing toxins**
 2 **while maintaining consumer acceptability (Broadstock, M.**
 3 **Systematic review of the health effects of modified smokeless**
 4 **tobacco products. New Zealand Health Technology Assessment**
 5 **Report 2007;10(1)). Non-cigarette tobacco use is under-researched**
 6 **in comparison to cigarette use.**

7 In recognition of the threat that tobacco use poses to global public health, in May
 8 2003, the member countries of the World Health Organization adopted the Framework
 9 Convention on Tobacco Control (WHO FCTC), the first international treaty devoted to
 10 health (World Health Organization. Framework Convention on Tobacco Control. Geneva,
 11 WHO, 2003 (<http://www.who.int/tobacco/framework/download/en/>).

12 Scientific evidence plays a central role in the WHO FCTC. Its Foreword describes the WHO
 13 FCTC as "an evidence-based treaty that reaffirms the right of all people to the highest
 14 standard of health" (World Health Organization. Framework Convention on Tobacco
 15 Control. Geneva, WHO, 2003 (<http://www.who.int/tobacco/framework/download/en/>). In
 16 the preamble to the FCTC, it states that adopting nations are "determined to promote
 17 measures of tobacco control based on current and relevant scientific, technical, and economic
 18 considerations"(World Health Organization. Framework Convention on Tobacco Control.
 19 Geneva, WHO, 2003 (<http://www.who.int/tobacco/framework/download/en/>). To achieve
 20 the objective the WHO FCTC calls for a comprehensive range of policies, defined for the
 21 purposes of this Handbook as the enabling mechanisms that allow particular rules,
 22 regulations, and programs to operate [frameworks that allow instruments to be
 23 implemented]. The key articles of the Convention relevant to this Handbook are shown in
 24 the table below:

FCTC Article #	Topic
Article 6	Price and tax measures to reduce demand
Article 8	Protection from exposure to tobacco smoke
Article 9	Regulation of the contents of tobacco products
Article 10	Regulation of tobacco product disclosures
Article 11	Controls on packaging and labelling of tobacco products
Article 12	Programs of education, communication, training and public awareness
Article 13	Bans on tobacco advertising, promotion and sponsorship
Article 14	Programs to promote and assist tobacco cessation and prevent and treat tobacco dependence
Article 15	Eliminate illicit trade in tobacco products
Article 16	Measures to prevent sale of and promotion of tobacco to young people

Article 17	Provision of support for alternative crops to tobacco
Article 20	Provision of an epidemiologic monitoring system
Article 22	Cooperation among the parties to promote the transfer of technical and scientific expertise on surveillance and evaluation

1

2 The WHO FCTC is a seminal event in global health. Scientific evidence demonstrated
3 the enormous health harms of tobacco use. Scientific evidence as to the effectiveness of
4 potential interventions also played a foundational role in the selection of the policies that are
5 included in the WHO FCTC. However, whether the WHO FCTC is to fulfil its objective of
6 reducing the devastation of the tobacco epidemic will depend on how effectively countries
7 formulate and implement these policies. Moreover, history has shown us that the tobacco
8 industry will adapt and work to circumvent even the strongest policies so that governments
9 will also need to be ready to evolve and change their policies in order to ensure they achieve
10 their goals . Good public health practice demands ongoing evaluation research as critical to
11 inform the implementation and dissemination of established policy instruments as well as to
12 aid in the subsequent evolution of new policy-related interventions.

13 This is the second in a series of IARC Handbooks on Tobacco Control. The first Handbook
14 set the scene by reviewing the evidence for health benefits of quitting smoking (IARC
15 Handbook 1, Volume 11, Health Benefits of Stopping Smoking). The working group that
16 considered the evidence on the health benefits of smoking cessation concluded that the
17 evidence was clear that there were major health benefits for the main smoking-related
18 diseases (Dresler CM, Leon ME, Straif K, et al. Reversal of risk upon quitting smoking. The
19 Lancet. 2006;368:348-349). They also concluded that stopping smoking completely after
20 decades of use only resulted in a partial loss of acquired health risk: that is, the risks of at
21 least some diseases appear never to return to that of a non-smoker. This highlights the
22 importance of preventing dependence on tobacco developing. We infer that the benefits
23 found for stopping smoking extend to stopping use of other tobacco products, although the
24 magnitude of the benefit will presumably be a function of their base harmfulness.

25

26 **Summary of our Deliberations**

27 The Working Group met at IARC from March 12-19, 2007. Prior to the meeting
28 Working Group members had prepared drafts of the individual chapters and these had been
29 circulated and reviewed. These drafts formed the basis for discussions. Discussions were
30 divided between overarching issues and detailed review of the individual chapters. Unlike

1 most other IARC Handbooks, this Handbook is concerned with the articulation of a
2 framework and methods for evaluation, not an evaluation of a body of research. As a result,
3 our recommendations are largely to the potential readers of the Handbook about how to go
4 about doing evaluation studies in a way that will best advance tobacco control. We do not
5 frame them as recommendations, leaving that term to suggestions we make to others.

6 The goals of this Handbook are to move the field forward by: 1) developing a common
7 framework and language for evaluation; 2) reviewing the strengths of possible research
8 designs; 3) using theory to provide a listing of core constructs to measure when doing
9 evaluations of key tobacco control policies; 4) identifying measures of constructs; and 5)
10 providing an assessment of the scope and quality of existing data sources. Four broad
11 questions helped guide the working groups' review of the scientific literature on the methods
12 and measures of tobacco policy evaluation. These questions and related sub-questions
13 included:

- 14 1. How do we determine the effects of a policy?
 - 15 • What are the key features of the interventions?
 - 16 • Is there a common conceptual framework that can be applied to
17 understand how policies work?
 - 18 • Absent a randomized clinical trial design, are there design features
19 that can be used to reduce threats to internal validity?
- 20 2. What are core constructs for understanding how and why a given policy works?
 - 21 • Which of these are parts of general pathways, and which are specific
22 to particular policies?
 - 23 • What is the quality of the measures used to assess core constructs?
 - 24 • Do these measures translate in different cultures and contexts?
- 25 3. What are potential moderator variables to consider when evaluating a given policy?
 - 26 • What is the quality of the measures used to assess core constructs?
- 27 4. What data sources exist that might be useful for evaluation?
 - 28 • How useful are these data sources for evaluation (i.e., completeness
29 and quality)

1 In attempting to answer these questions, explicit consideration was given to equity
2 issues both within and between countries. This involves always asking the question: “What
3 is needed to optimise the intervention for disadvantaged groups?”

4 The Handbook outlines a framework that interested organisations of the world,
5 including governments, can utilize to measure the effectiveness of interventions aimed at
6 implementing WHO FCTC policies that are and will be adopted in the next several years. It
7 describes major steps we made to articulate a new and coherent framework for thinking
8 about tobacco control interventions. The background justification for our conclusions can be
9 found in Chapter 1 of the Handbook.

10 The Working group came from diverse disciplines and theoretical frameworks. This
11 necessitated ongoing work to standardise language. We realised that some terminology was
12 designed for thinking about the problem from a different perspective to the one necessary for
13 understanding the complexity of population health areas like tobacco control. There is a need
14 for ongoing work to rethink our terminology to better fit a population health framework.
15 Towards this end the Handbook includes a glossary of common terms used throughout the
16 various chapters.

17 The Handbook is intended to be a resource for researchers interested in evaluating
18 tobacco control policies, and others interested in evaluating interventions beyond merely
19 auditing implementation. It should also be useful for policy and program developers as it
20 spells out the theoretical frameworks upon which the interventions are based, and provides
21 explicit models of how they have their effects.

22 23 Steps towards a framework for evaluation

24 We began by considering what outcomes we should focus on. Aided by the
25 conclusions of Handbook No. 1, we concluded, in so far as the interventions under
26 consideration related to tobacco use, and not to the harmfulness of each unit of the product,
27 that we could use tobacco use behaviours as the main outcomes. This meant that, for the
28 most part, we did not consider disease or mortality outcomes.

29 We have concluded that there is currently no coherent framework for thinking about
30 the evaluation of tobacco control policies. The frameworks borrowed from other areas such
31 as clinical medicine are not adequate to the needs of the field. Randomised clinical trials are
32 not practical nor are they absolutely necessary to develop evidence of the effectiveness of

1 tobacco control policies. Further, using a model adapted from the evaluation of new
2 pharmacotherapies, where the mechanism of action have not previously been demonstrated
3 to have clinically meaningful effects, has led to us ignoring a lot of what we do know. For
4 example, we do know that both information and incentives can play an important role in
5 behaviour change. We have been caught in a framework that does not give adequate value
6 to the accumulation of knowledge and the benefits of generalising from findings about
7 similar interventions in other areas.

8 We concluded that we need to think about policy evaluation in a way analogous with
9 the way epidemiologists have approached the task of inferring conclusions about the causes
10 of disease (USDHSS, 1964; Hill, 1965). That is, develop a framework that allows us to
11 triangulate all the available evidence to help us rule out alternative explanations of observed
12 effects rather than focus on individual studies in isolation.

13 The question we are usually asking about policy interventions is: “Under what
14 conditions can the desired effects be optimised?”, not whether they can work. This means
15 we are concerned about the form of the intervention, the ways it is delivered, and various
16 characteristics of the populations it is provided to. This is a framework that sees evaluation
17 as part of a process of continual improvement. It is also about determining the relative
18 contribution of each intervention to the overall goal, and of how this might be moderated by
19 characteristics of the broader environment.

20 This is a framework for evaluation that is explicitly cumulative. One that looks at the
21 accumulation of evidence from individual evaluations, not just to help elaborate causal
22 mechanisms, but also to help optimise interventions and to understand their roles in different
23 contexts. This involves quantification of the conditions which affect intervention
24 effectiveness, including their form, their quality of implementation, and the cultural contexts
25 in which they are delivered.

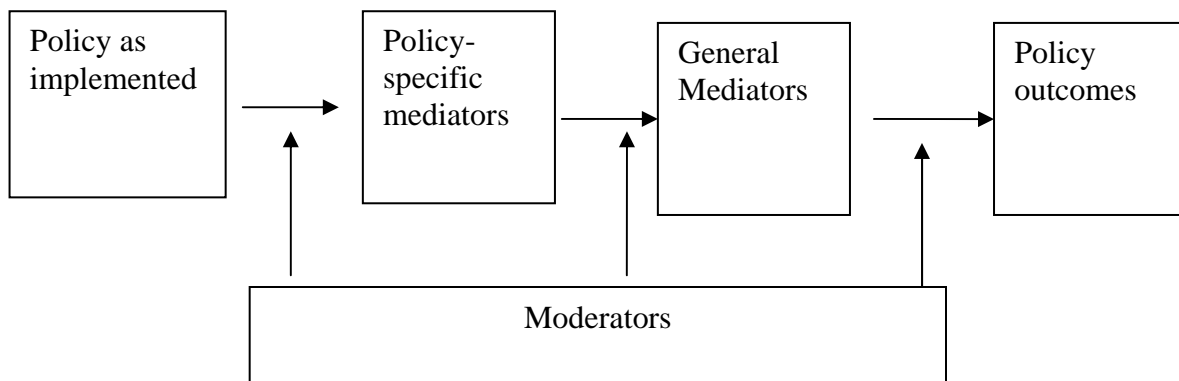
26 In the same way that evidence-based medicine has been built from rigorous evaluation
27 of treatment options, evidence-based public health policy must begin with building a
28 database from rigorous evaluation of public health policies. Evaluation of the effectiveness
29 of tobacco control policies at the population level has been limited by inadequate data
30 sources, problems in measurement, and poorly conceptualised evaluation designs. It has also
31 been limited by a failure to look for and maximise the value of studies with individually
32 limited designs by comparing the findings from similar studies, rather than treating them in

1 isolation. In isolation, they may have little to tell us, but in combination, they can be
2 extremely valuable, not only by adding to knowledge, but also allowing use of existing
3 knowledge to make more confident inferences from them in particular cases. That is, the
4 explicit comparison with the corpus of existing knowledge allows individual evaluators to
5 say more about the programs they evaluate than the designs they have adopted would allow
6 them to do if they treated their evaluations in isolation of the cumulated knowledge.

7 If the potential of accumulation is to be maximised, then we need to use evaluations to
8 build up our understanding of how interventions work. This involves paying more attention
9 to the articulation of theoretical mechanisms, and having study designs that facilitate this.

10 Good evaluation starts with an analysis of the problem. Thus, in the first instance we
11 need to build an understanding of the factors that are or can affect tobacco use and how use
12 relates to the harms. Second we need to consider mechanisms by which tobacco control
13 interventions can act to reduce harm. We identified four things that need to be considered in
14 evaluating interventions designed to reduce the harms. First, is whether the goal of the
15 intervention is to change tobacco use, tobacco harmfulness, or both of these. Second, is the
16 theoretical model or set of models as to how the interventions are expected to achieve their
17 intended effects. Third, is an elaboration of possible incidental effects of a policy that may
18 plausibly occur. Fourth, is to monitor, and evaluate where necessary any changes in the
19 environment that could change the impact of the intervention: particularly, counteractions of
20 the tobacco industry.

21 The first three steps in determining how policies may achieve their effects require
22 specification of a theory of how the policy is expected to work. As Kurt Lewin noted years
23 ago (1935), “there is nothing as practical as a good theory.” We conclude that researchers
24 should consider the adoption of a common framework to help identify relevant theories and
25 thus guide the selection of core constructs useful for evaluating how and under what
26 conditions tobacco control policies work. First we need to consider the issues that are likely
27 to be relevant. A general framework for assessing how an intervention might work is
28 illustrated in the figure below. At the first level it specifies two levels of mediating variables
29 between a policy intervention and the outcomes, those specific to the policy, and those
30 variables that are part of more general pathway. It also accepts that various other factors
31 (moderators) might affect the size and of the effect.



1 Figure: A generalized model of mediation making allowance for moderator effects

2
3 There are only two main types of causal chain we need to consider: the pathway from
4 policies to tobacco use, and the pathway from tobacco products to levels of exposure to toxic
5 substances and to the harms that result. Consideration of pathways may lead to the
6 subdivision of a policy area into classes of interventions that share common pathways.

7 The model outlines the primary constructs involved in helping to explain the
8 relationship between tobacco control policies and their effects on tobacco use behaviours. In
9 a limited number of cases, primarily in some aspects of product regulation, there is an
10 alternative main path to outcomes, through reduced delivery of toxic chemicals. This is
11 spelled out most clearly in Chapter 5.3 on product regulation.

12 It is particularly important to go beyond the specific intent of some policies to explore
13 their more distal ramifications. For example, the goal of information and product labelling
14 policies is improved knowledge. However, it is of interest to see whether and how these
15 policies actually translate into changes in tobacco use behaviours. It is also important to
16 consider effects along different pathways to the intended means of action as these might be
17 important for analysis of society-wide impacts; e.g., the generally neutral or positive effects
18 on business of smokefree policies.

19 Finally, there needs to be consideration of unexpected effects on other determinants of
20 tobacco use. This is more important in tobacco control than in most other areas of health
21 because such effects may be deliberately influenced by the tobacco industry (Cummings
22 KM, Morley, Hyland A. Failed promises of the cigarette industry and its effect on consumer
23 misperceptions about the health risks of smoking. *Tobacco Control*, 22 (suppl 1):i110-i116,
24 2002). In order to measure unexpected outcomes of a policy, requires surveillance. This

1 may be facilitated by a theoretical understanding of the industry's need to maintain its
2 profitability which can sometimes be used to guide the sort of information that might be
3 most important to consider in looking for reactive effects.

4 This conceptual framework assumes that each policy directed at changing tobacco use
5 ultimately has an influence on those behaviours through a specific causal chain of
6 psychological events. Policy-specific mediators involve such things as awareness, policy-
7 specific knowledge, and reactions to specific elements of the intervention. For example, new
8 graphic warning labels should increase salience and noticeability of warnings, and perhaps
9 foregoing of occasional cigarettes. The second set of general mediators are constructs taken
10 from behavioural science which we know mediate effects of behaviour, that is they are
11 means by which changes in tobacco use may occur. They include attitudes, normative
12 beliefs and intentions. Moderators, those things that change the magnitude of the effects of
13 an intervention without necessarily being changed by the intervention include socio-
14 demographic factors (e.g., age, gender, socio-economic status, cultural background) and
15 psychological factors that are either assumed to be stable or which the intervention is not
16 designed to change (e.g., level of dependence). This framework is a general guide for
17 thinking about policies and their effects on a broad array of important psychosocial and
18 behavioural variables, and for testing how policy distinctions relate to their effectiveness.

19 The model for the effects of changes in tobacco products to health effects can similarly
20 be articulated, although here the distinction may be more between constructs that are
21 measured in the environment (e.g., physical characteristics of cigarettes) and those within the
22 individual (e.g., exposures, health harms), and the challenges of demonstrating links between
23 the two.

24 We set ourselves the task of using diagrams, or logic models, to spell out the main
25 factors to consider for each policy area and as to how they interrelate and the policy-specific
26 chapters in this Handbook, to see if this approach would help elucidate common constructs
27 and measures that might be apply across different policy domains. The logic models
28 allowed us to readily compare of similarities and differences in the constructs and measures
29 across policy domains, and of the differences of policy type within a broad policy domain.
30 We have kept the models deliberately simple in an effort to focus attention on key
31 constructs. If a particular challenge in understanding becomes focused within one box in the
32 pathway or in the links between two boxes, the first step is to go to a higher order of

1 magnification and try to spell out in more detail the theoretical pathways, leaving the
2 unproblematic area in 'larger scale' boxes.

3 Finally, a major challenge is in the identification and validation of appropriate
4 measures. Measurement validity is a particular issue, with measures of constructs varying in
5 their validity dependent on the purpose they are being used for. This is sometimes because
6 we use measures of known bias for measuring constructs because we have no better
7 measures, but fail to pay attention to the differential effects of that bias in different contexts.
8 One other challenge that we identified, but did not address in detail, is that different types of
9 bio-psychosocial processes operate on different time scales, such that the frequency of
10 observations necessary to detect some types of change may be inappropriate to detect others.

11 The general theoretical framework that we present here should be applicable across
12 socio-cultural contexts. Clarification of policy intervention effects and the moderation of
13 these effects will often involve comparative research. However, the theoretical framework,
14 its associated constructs, and the measurement of these constructs may differ in important
15 ways across national, cultural, linguistic and social groups. Researchers should use
16 appropriate methods to help ensure that comparisons across these groups are generally valid.

17

18 **General Recommendations**

19 Evaluation requires specific, committed resources. The framework we have developed
20 highlights the potential value of good evaluation for interventions as it allows for both
21 ongoing improvement and the capacity to build on the accumulated knowledge acquired by
22 others. In 1999, the United States Centers for Disease Control and Prevention (CDC)
23 recommended that 10% of the total budget for a comprehensive tobacco control programme
24 should be allocated for evaluation and surveillance. The CDC recommendation was recently
25 endorsed by WHO and represents a reasonable benchmark for governments to adopt.

26 **We strongly recommend that countries allocate adequate funds for evaluation**
27 **and surveillance activities. Where a budget for tobacco control programmes exists, we**
28 **recommend that an adequate percentage of it be earmarked for evaluation and**
29 **surveillance.**

30 Evaluation needs to begin with an understanding of the nature of the interventions
31 being evaluated. Collection of this information, especially for international studies is
32 surprisingly difficult. Collective effort, especially by agencies with networks into

1 appropriate government agencies, could make it easier to collect this information, and do so
2 in a consistent manner.

3 **We recommend that high priority be given to the development and maintenance**
4 **of a reliable and accurate international system for tracking tobacco control policies.**

5 Also critical for the field to move forward is for sufficient attention and resources to be
6 provided to knowledge utilization, which in this domain would include appropriate detailed
7 documentation of the results and all the features of evaluation studies, so as to allow the
8 information to be compared and summative evaluations made. Development of a repository
9 to collect and organise this information is becoming increasingly important. Complementing
10 the repository of evaluations, should be a similar repository of measures , with information
11 as to their validity in the various contexts where they might be useful. The utility of such a
12 repository would be enhanced by the development and agreement on use of prototype
13 proformas for reporting on the validity data on measures, and on frequently repeated
14 interventions, such as mass media campaigns. This will facilitate their combination into
15 meta-analytic studies, especially important for understanding where and when things work.
16 The continued momentum of the WHO FCTC and of the broader movement to fight against
17 the global tobacco epidemic can be facilitated by the existence of such a repository, with
18 appropriate tools for easy access and utilization of the contents of the repository. Articles 20
19 and 22 of the WHO FCTC effectively call for such an initiative.

20 **We recommend that a repository be created and maintained to collect detailed**
21 **documentation of the methods and results of tobacco control policy surveillance and**
22 **evaluation studies, particularly those related to WHO FCTC policies. Those conducting**
23 **or sponsoring evaluations should be encouraged to add appropriate information to this**
24 **repository.**

25 **We recommend that governments work together to support efforts to develop**
26 **common methods and measures to support evaluations of tobacco control policies.**

27 Governments should be encouraged to collect from the tobacco industry to help
28 evaluate current and future tobacco control policies, and to assist in identifying tobacco
29 industry actions that might moderate the effects of tobacco control policies. The kind of
30 information that should be readily available from the industry and placed into the public
31 repository includes disaggregated sub-brand specific marketing activities, product sales data,
32 and product content, design and performance data. It might also include more general

1 information on political contributions, funding of scientists, general sponsorships and other
2 activities of the industry which are designed to affect the environment in which they operate.

3 **We recommend that governments mandate that tobacco companies provide them**
4 **with information that might facilitate the improvement of tobacco control policies**
5 **and/or help identify the potential for new policies.**

6 There are substantial infrastructure and information needs that are essential to
7 conducting successful policy evaluations and supporting the dissemination and utilization of
8 evaluation results. Ongoing surveillance is required to assess the impact of tobacco control
9 policies on the tobacco product market and on the population, as well as to detect industry
10 responses to policies and other unanticipated consequences.

11 **We recommend that countries interested in developing a tobacco control**
12 **surveillance system be encouraged to join one of the international systems. Those**
13 **countries that have existing national surveys are encouraged to link to these**
14 **international efforts.**

15 The information resources called for here should make important sources of data
16 accessible and useable for informing policy, development, implementation and evaluation.
17 Additionally, specific dissemination strategies should be employed to make relevant
18 information useful to policy makers, public health practitioners and the general public.

19

20 **Chapter summaries**

21 **Section 2 General methods and common measures**

22 This section consists of two chapters. The general conclusion about evaluation being a
23 summative process in this area means that here is a renewed focus on the utility of weaker
24 study designs to provide useful information when combined together. Along with a detailed
25 discussion of threats to internal validity and a reworking of the criteria for attributing
26 causality used in epidemiology, chapter 2.1 provides a step by step assessment of the
27 potential additional power of a range of design elements, culminating in the cohort with
28 replenishment from representative samples which, given equivalent sample size to other
29 methods, is the most powerful methodology for policy-related interventions where
30 conditions cannot be randomised. Use of such methods is particularly important for
31 elucidating causal mechanisms.

1 We find it important to explicitly acknowledge that the meaning of words differs
2 across cultures, and indeed sometimes within cultures over time. Where there is no
3 equivalent construct to the one used in a source language, translation is compromised. Here
4 researchers need to describe the differences as best as they can – it is difficult to do in a
5 language that does not have the exact construct. In an area like tobacco control, where we
6 are systematically attempting to change societal attitudes to tobacco use, it is possible that
7 some of the terms associated with use will change at least in nuances of meaning. We need
8 to consider meaning changes as one of the possible explanations for changes in responding
9 to questions, especially those that have an evaluative component, or might be seen to have.
10 These issues are discussed in some detail in Chapter 2.2. We also noted lack of a
11 framework for dealing with the different issues involved in validating the various types of
12 measure we are concerned about. More systematic work is required to develop standard
13 criteria for validation; for example for questions designed to elicit such things as awareness
14 and beliefs.

15 One key conclusion arose from this section. We concluded that the aim of
16 measurement was to best measure the construct. It follows from this that in survey question
17 design, it is more important to maintain the integrity of the construct than to have the same
18 wording. This applies not only to translation, but can also apply to different cultures using
19 the same language, or indeed within the same culture if language use changes sufficiently.

20

21 Chapter 2.1 **The Importance of Design in the Evaluation of Tobacco Control** 22 **Policies**

23 Evaluating the outcomes of population-level tobacco control policy involves three
24 interrelated questions: (1) Does the policy have an impact? (causality) ; and if so (2) Under
25 what conditions? (moderation) ; and (3) How (mediation)?

26 The choice of design elements will depend on which questions are considered to be a
27 part of the evaluation effort.

28 It is important to ensure that the appropriate concepts are chosen and for each,
29 measure are identified that are suitable to answer the evaluation question.

30 This chapter describes key design elements of outcome evaluation studies and how
31 each contributes to reducing or eliminating threats to the internal validity of a study. Internal

1 validity determines the extent to which the results of the study can lead to a causal
2 conclusion.

3 Evaluation efforts should be informed by knowledge of the nature of the policy being
4 evaluated and the goals of the evaluation study should be clearly stated. Evaluation planning
5 should be guided by understanding what threats to internal validity may be present in the
6 study of a given policy situation, and then adding design elements and other measures to
7 reduce or eliminate those threats.

8 Knowledge of the mediational pathways that are theorized to explain how policy
9 affects behaviour and environment (or environmental risk) should lead to: an appropriate
10 study design; the inclusion of appropriate constructs and measures; and the selection of
11 analytic tools that are well-suited to estimating the causal impact of policies by providing an
12 explanatory pathway and helping to eliminate alternative explanations. Logic models
13 describe these pathways and help identify constructs to measure. Suggestions on specific
14 measures for many of these constructs are provided in other chapters of this Handbook.

15 An outcome evaluation study must, at a minimum, include one post-policy
16 measurement. In general, the addition of one pre-policy measurement (even cross-sectional)
17 using the same measures and sampling frame is a more powerful evaluation strategy for
18 assessing change due to a policy. The inclusion of a single, non-random control from another
19 population is considered less desirable. Additional post-policy measurements are useful to
20 track the effects of a policy over time. The utility of longitudinal designs is strengthened if
21 there are multiple data collections before and/or after policy implementation as it allows
22 more precise specification of effects—for example, taking into account temporal trends that
23 were occurring before the implementation of the policy. The role of time series analysis on
24 aggregate sales /consumption data to demonstrating the effects of price on consumption is a
25 good example of the power of multiple measurements.

26 Both repeated cross-sectional and longitudinal (cohort) designs are useful for
27 assessing the impact of a given policy. The use of cohort designs provides additional
28 capability for tracking the impact of policies within individuals, allowing stronger tests of
29 mediational pathways.

30 Addition of samples from other populations to either or both intervention and control
31 arms also adds strength to the evaluation design, as does having varying levels of intensity of
32 the intervention.

1 Similarly, parallel assessment of alternative explanations for observed changes in
2 outcomes (eg, possibly being due to other policies or industry counter-actions) adds strength
3 over assessing these effects in separate studies.

4 The existence of studies with complementary strengths and weaknesses is
5 particularly useful when it comes to triangulate the results of a corpus of evaluation studies
6 to see if a consistent pattern emerges.

7 The use of probability sampling in an evaluation study increases its external
8 validity—the extent to which the findings of a policy evaluation study can be generalized to
9 making conclusions about the impact of the policy on the larger population.

10 At a broader level, the design of an evaluation study should be guided by knowledge
11 of how prior evaluation studies in the same policy domain have been conducted. An analysis
12 of the similarity or differences in policy impact across similar studies can yield powerful
13 conclusions about the overall impact of a policy.

14 Chapter 2.2 **Developing and assessing comparable questions in cross-cultural** 15 **survey research on tobacco**

16 Evaluation of tobacco control policies and other population-level interventions often
17 involves data collection efforts across diverse national, cultural, linguistic and social groups.
18 Comparison across such groups is often necessary to clarify policy effects, how these effects
19 happen, and how effects might differ across populations. The literature discussed in this
20 chapter suggests that these comparative studies should consider measurement equivalence
21 issues in the following ways:

22 Research teams should include collaborators from the socio-cultural groups in which
23 the study is being conducted in order to help anticipate issues regarding the comparability of
24 the theoretical framework, constructs, and the measurement of these constructs across
25 groups. When research involves participants from distinct language groups, it is
26 recommended that at least one, and preferably more, team members are fluent in the source
27 language and the target language in which the survey will be administered.

28 Whenever possible, it is recommended to use measures that have been appropriately
29 validated for the populations in which the questionnaire will be administered. Even when a
30 measure has been validated within one population group, its validity may not extend to other
31 groups, and additional steps may be necessary to increase validity and improve the value of
32 comparisons across groups.

1 Translation of questionnaire items from one language to another should involve
2 experienced translators. Review and adjudication of multiple, independent translations of
3 the same items is currently considered the gold standard. If only one person translates the
4 questionnaire, then translation review should involve a group of bilingual people who are
5 knowledgeable of questionnaire design principles and of key study concepts. Translation
6 assessment should not merely consist of back-translation.

7 Researchers should carefully select and translate items with the goal of achieving
8 equivalence of construct meaning across study populations. In some cases, literal translation
9 of a questionnaire item across linguistic variants of the survey will not adequately capture
10 the construct of interest, and more flexible translation and adaptation of the question will be
11 necessary.

12 All surveys, not just those that are translated, should be pre-tested to assess
13 comprehension issues among the populations in which the survey will be administered.
14 Ideally, pre-testing would involve cognitive interviewing before a survey is fielded.
15 Cognitive interviewing or other pre-testing methods may also be used post-hoc to increase
16 the validity of comparisons or to determine whether inconsistent results may be due to
17 differential question comprehension.

18 Researchers should consider and seek solutions to minimize the ways in which
19 culturally moderated response factors (e.g., social desirability, acquiescence, extreme
20 responding) may influence responses.

21 Researchers should document decisions related to measurement development and item
22 wording, especially where conceptual equivalence is suspect, translation is difficult, and/or
23 where cognitive interviewing or other pre-testing methods reveals systematic differences in
24 meaning. Researchers should also document issues around survey administration.

25 26 **Section 3 Outcomes and major determinants**

27 This section consists of three chapters, all concerned with constructs that are likely to
28 be used across a range of policy evaluations. Chapter 3.1 provides a chapter on the
29 measurement of tobacco use behaviours. Chapters 3.2 provides a list of the main
30 psychosocial determinants of tobacco use and reviews measures for each. It is
31 complemented by Chapter 3.3, which reviews measures of dependence, the construct on
32 which most research has been conducted.

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Chapter 3.1 **Measuring Tobacco Use Behaviors**

This chapter describes the key concepts within the natural history of tobacco use, providing a conceptual model to guide measurement of key constructs. Current tobacco use is the most important construct because of its importance as an outcome in policy evaluation studies. Studies that have examined the validity of self-report measures of current use generally find these measures to be valid, although there exist some conditions under which the validity may be reduced.

It is important to measure the type of tobacco used, particularly in those countries in which there exist a variety of types. The variety of forms available, and the possibility of switching, or multiple concurrent use may influence the probability of quitting and disease risk.

Detailed measurement of information about tobacco product packaging is important in order to determine the variant of product type used, movement between price sectors, and, potentially, to assess the use of tobacco from illicit sources.

Other important constructs in the measurement of tobacco use behaviour include early use, frequency and quantity of current use, quit attempts, and duration of abstinence among former smokers.

Consumers of survey data in which tobacco use measures are included should be aware of factors that can influence population estimates of tobacco use and take those into consideration when comparing estimates from surveys conducted within and across countries.

Chapter 3.2 **Measuring the psychosocial determinants of tobacco use and dependence**

This chapter describes mediators and moderators theorized to be important in understanding how policies and interventions affect tobacco use behaviours, and under what circumstances they have an impact. A core set of measures likely to be important has been identified. Researchers should select from this list and, when appropriate, supplement it with other relevant measures, depending on the specific context and aims of each study. There are validated measures of many of the reviewed constructs, and researchers should, whenever

1 possible, use these measures rather than develop their own, ad hoc measures. Investigators
2 should report the psychometric properties of their measurement instruments, reporting at
3 least test-retest reliability, convergent validity and / or predictive validity. Psychological
4 measures are particularly sensitive to wording and to cultural context, so we recommend that
5 the methods for translations and cultural adaptations described in Chapter 2.2 be utilized in
6 populations where these measures have not been previously validated.

8 Chapter 3.3 **Measurement of Nicotine Dependence**

9 Nicotine dependence is an important construct to assess as a moderator for the effects
10 of tobacco control programs and policies. In this chapter we reviewed the evidence on the
11 validity of various proposed measures of cigarette and smokeless-tobacco-induced nicotine
12 dependence. For cigarette smoking, the 2-item Heaviness of Smoking Index is recommended
13 for use in population level studies. If only a single item measure is possible we would
14 recommend the use of “time to first cigarette in the morning” as the item. For smokeless
15 tobacco, the FTND-ST appears to be a useful measure of nicotine dependence.

17 **Section 4 Existing data sources**

18 This section consists of three Chapters which describes sources of details about
19 tobacco control policies (Chapter 4.1); sources of information about tobacco production and
20 trade (Chapter 4.2); and repositories of youth and adult surveillance surveys (Chapter 4.3).
21 These sources of information are particularly important for making comparisons between
22 countries, and in some cases can be used to demonstrate policy impacts, although not the
23 mechanisms by which they occur.

25 Chapter 4.1 **Data sources for monitoring tobacco control policies**

26 This chapter describes the new WHO Global Tobacco Control Report (GTCR) which
27 is a repository of good quality information on a wide range of tobacco control policies for
28 the large majority of countries.<provide website if available before going to press> GTCR
29 contains copies of most of the legislation and/or regulations, some measures of scope and/or
30 level of policy enactment, and an indicator of cases where national level policies may mask a
31 diversity of sub-national policies. It is designed to be updated annually.

1 All policy researchers studying policy differences between countries should use it, and
2 indeed it may be the easiest way to get this information for some individual countries.

3 It is limited in what it can provide on extent of implementation and/or enforcement. Its
4 main limitation is that it does not contain information about sub-national policies.
5 Information of this sort is only available for the limited number of countries that collect it.

6 7 Chapter 4.2 **Data sources on tobacco production, trade and sales**

8 National data on the production, trade (export and import) and sales of tobacco
9 products are most often available publicly at little to no cost and have been underutilized in
10 evaluations of tobacco control programs and policies. These data 1) can provide important
11 insights into the relevant players and sectors in the national and regional political economy
12 of tobacco control, 2) can be used to construct measures of historical trends in tobacco
13 consumption and 3) provide estimates of the magnitude of the smuggling market (see
14 chapter 4.5). Thus, these data are an important information sources for evaluation of tobacco
15 control policies.

16 National data are typically available from sources such as government statistics
17 agencies and ministries of trade and industry. The United Nations Statistical Division
18 (UNSD) consolidates this information based on reports from countries. These reports are
19 generally accurate, but primary sources should be used to confirm the data and to obtain
20 other information such as data on sales and other tobacco products.

21 22 Chapter 4.3 **Data Sources for Monitoring Global Trends in Tobacco Use** 23 **Behaviors**

24 The youth surveillance systems described in this chapter include: The European School
25 Survey Project on Alcohol and Other Drugs (ESPAD), the Global School-Based Student
26 Health Survey (GSHS), the Global Youth Tobacco Survey (GYTS), and the Health Behavior
27 in School-Aged Children Survey (HBSC). The adult surveillance systems described include:
28 the Global Adult Tobacco Survey (GATS), the International Tobacco Control Survey (ITC),
29 and the STEPwise Approach to Chronic Disease Factor Surveillance (STEPS).

30 To evaluate among youth articles of the WHO FCTC, GYTS is the only source of
31 international data available which includes the following indicators: exposure to secondhand

1 smoke, exposure to pro- and anti-tobacco media and advertising, cessation, minors' access,
2 and school curriculum.

3 To evaluate among adults articles of the WHO FCTC, GATS and ITC have the most
4 comprehensive set of indicators, including: exposure to secondhand smoke, economics (price
5 and taxation), cessation, product labeling, and exposure to pro- and anti-tobacco media and
6 advertising. Where possible longitudinal studies, such as ITC, should be used for evaluating
7 policies and programs because of the opportunity to examine and adjust for individual level
8 predictors of tobacco use behaviors (see Chapter 2.1).

9 GYTS was developed, and GATS is being developed, for countries which did not have
10 existing surveillance systems for the collection of information on tobacco use and its
11 determinants.

12

13 **Section 5 Strategies for evaluating specific policy domains**

14 This section consists of seven chapters that cover all major domains of tobacco control
15 policies except for prevention policies and illicit trade. Some aspects of both are dealt with in
16 relevant places in other the chapters. The various Handbook chapters illustrate ways in
17 which the use of logic models can be used and highlight the different foci of policies. In
18 particular, analysis of policy areas directed at controlling tobacco marketing (including by
19 some forms of product regulation) identified the importance monitoring of tobacco industry
20 innovations designed to mitigate the policy effects, while those less targeted at the industry,
21 did not do so. Chapter 5.1 on Smokefree policies, highlights the need to consider a range of
22 incidental effects in addition to the main policy goals.

23

24 **Chapter 5.1 Measures to Assess the Effectiveness of Tobacco Taxation**

25 Article 6 of the WHO FCTC calls for ratifying nations to reduce the demand for
26 tobacco products through taxation policies and other product price related policies. This
27 chapter focused on the measures that are needed for evaluating the impact of tobacco
28 taxation, a highly effective tool for reducing tobacco use. The impact of tobacco taxes on
29 tobacco use behaviours (see Chapters 3.1 and 4.2) is mediated by tobacco product prices,
30 tobacco company price-related marketing efforts (see section 5.4), tobacco users' purchase
31 behaviour, tax avoidance and smuggling.

1 Measuring tobacco product taxes is straightforward, with information on the level and
2 structure of these taxes readily available from the Ministry of Finance and other sources (e.g.
3 the International Monetary Fund, the WHO's Global Tobacco Control Report). In some
4 countries, it will also be important to measure sub-national taxes. Three methods for
5 measuring tobacco product prices were discussed in this chapter: technology based;
6 observational; and survey based. These methods have differing strengths and weaknesses
7 and their costs will vary considerably. To the extent that a national measure of price is of
8 most interest and a regularly repeated population survey of tobacco use is in place, including
9 questions on price in such a survey would be most efficient. Measuring tobacco product
10 purchase behavior can be easily done through the addition of a limited set of questions to this
11 survey. Developing accurate measures of tax avoidance and tobacco product smuggling is
12 more challenging and the validity of these measures is unclear and needs further research.
13 Some of the questions on purchase behavior in population surveys can be used to provide a
14 range for the extent of tax avoidance. Multiple methods, most of which have not been widely
15 applied and which need further research, can be used to assess the extent of tobacco product
16 smuggling.

17

18 Chapter 5.2 **Measures to assess the effectiveness of smokefree policies**

19 Article 8 of the WHO FCTC calls for ratifying nations to adopt smokefree policies for
20 public indoor locations and workplaces. Evaluating the effects of public smokefree policies
21 is critical to understanding how these policies are implemented, whether they reduce
22 exposure to tobacco smoke, and how they can be improved. The core constructs identified
23 for evaluating smokefree policies include compliance with the policy and exposure to
24 tobacco smoke. Based on our review of the available research literature, we conclude that
25 population surveys can generally be relied upon to provide valid measures of compliance
26 with a public smokefree policy and exposure to tobacco smoke. These self-report measures
27 have been validated by ambient air monitoring and biomarkers of exposure to tobacco
28 smoke. Our review also suggests that it may be important for evaluators to consider
29 measuring key incidental effects of public smokefree policies such as the impact on the
30 behaviour of smokers, possible changes in smoking behaviour in the home, and a variety of
31 potential economic impacts.

32

Chapter 5.3 Measures to Assess the Effectiveness of Tobacco Product Regulation

Articles 9 and 10 of the WHO FCTC calls for ratifying nations to adopt policies to regulate and disclose information about tobacco products so as to minimize their harm to consumers. This chapter focuses on a review of the methods and measures for evaluating policies that are intended to regulate tobacco products. There are currently five main types: 1) regulations that require disclosure of product information; 2) regulations intended to reduce product toxicity and harm; 3) regulations intended to reduce the addictiveness and/or attractiveness of tobacco products; 4) regulations intended to prevent cigarette caused fires; and 5) bans (or removal of bans) on product categories. The selection of specific constructs and methods for evaluation will vary depending on the goals of the specific policy.

However, as a general framework it is likely that the impact of tobacco product regulations on intended health outcomes will be moderated by changes in product design and performance, product marketing, product-related beliefs and attitudes, and tobacco use behaviour, which in turn are expected to influence exposures to tobacco constituents and emissions.

It is important to both evaluate the intended effects through compliance, but also monitor tobacco industry innovation, to identify consequences that may need to be assessed.

There is a need for a centralized database that would at a minimum characterize different product regulations so that the effects of different policies can be compared. Additionally, as a condition permitting tobacco product sales, governments should require (if they do not currently do so) tobacco product manufacturers to regularly disclose information about their products at the finest level of brand subcategory, including sales and marketing data, product content, and design features. This is needed to inform the development, implementation, and evaluation of effective regulations. Additionally, ongoing surveillance is required to assess the impact of tobacco product regulation on the tobacco product market and on the population, as well as to detect industry responses and other unanticipated consequences of regulation. The challenges of measurement associated with evaluating the effects of tobacco product regulations should not be underestimated. For example, many governments have enacted maximum smoke emissions standards (i.e., tar, nicotine, and carbon monoxide) based on standardized machine testing protocols for the purpose of reducing exposure to the constituents in tobacco products and resultant harm. However, based on the evidence reviewed in this chapter, we recommend against using yields from standard machine testing protocols such as the ISO cigarette testing method (ISO Standard

1 3308, fourth ed., 2000. International Organization for Standardization. Routine analytical
2 cigarette-smoking machine— definitions and standard conditions) to assess or predict human
3 exposure. Emission yields derived from these protocols are not valid measures of actual
4 human exposure. In order to evaluate the effectiveness of product regulations aimed at
5 reducing harm, measures of human use and exposure are essential. There is an urgent need to
6 identify valid methods and measures for assessing human exposure and harm that have
7 practical utility for evaluating tobacco product regulations.

8 9 Chapter 5.4 **Measures to assess the effectiveness of restrictions on tobacco** 10 **marketing communications**

11 Article 13 of the WHO FCTC encourages ratifying nations to adopt comprehensive
12 tobacco marketing restrictions to the extent constitutionally possible. This chapter identifies
13 the key issues and constructs for evaluating restrictions on tobacco marketing. Tobacco
14 marketing includes all the communication efforts tobacco corporations use to encourage
15 consumption of their products, including mass media advertising, sponsorship of sporting
16 and cultural events, point of sale promotion, merchandising and give-aways, and public
17 relations.

18 A core distinction to consider is between evaluation of the pathway of intended effects,
19 and the need to monitor, and evaluate where necessary, evidence of tobacco industry activity
20 that might reduce the impact of the policy.

21 Various methods can be used to measure the effects and effectiveness of restrictions on
22 tobacco marketing, some borrowed from strategies to assess the impact of marketing. The
23 main approaches include using consumer surveys to examine the target market's response to
24 bans and restrictions and, if it can be obtained, use of disaggregated tobacco company
25 advertising expenditure data to model changes in tobacco use. Given different limitations,
26 we recommend a mix of these approaches, along with others, where possible. However,
27 there is a critical need to develop methods and valid measures for estimating the effects of
28 marketing bans and restrictions at the level of the consumer.

29 Additional key challenges in evaluating the effects of marketing bans and restrictions
30 include the extended time required for past marketing campaigns to dissipate from people's
31 awareness, and the persistence of effects from recent campaigns. Innovative and

1 increasingly subtle tobacco industry marketing strategies create an urgent need for ongoing
2 monitoring of industry behaviour.

3

4 Chapter 5.5 **Measures to assess effectiveness product labelling**

5 The WHO FCTC proposes tobacco product labelling regulations in 3 main areas: 1)
6 health warnings, 2) misleading brand descriptors, such as “light” and “mild”, and 3)
7 information on the constituents and emissions of tobacco products. This chapter identifies
8 core constructs for evaluating labelling policies including: proximal outcomes such as
9 awareness, processing, and knowledge of health warnings; intermediate outcomes such as
10 health knowledge, perceived risk, affective reactions, avoidance, brand appeal, and cessation
11 knowledge; and distal outcomes such as motivation to quit, changes in consumption patterns,
12 and quitting behaviours. Few of the measures for each of these constructs have undergone
13 formal validation testing, although several of the measures described have shown utility for
14 evaluating the impact of changes in product labelling.

15 The selection of specific measures to evaluate tobacco labelling policies will depend
16 upon the policy chosen for evaluation. Evaluations of health warning labels should include
17 proximal measures of noticing, along with intermediate measures of perceived risk or health
18 knowledge. Evaluations of brand descriptors and other packaging elements should be a
19 priority for tobacco control research. Unlike health warnings, these policies require the
20 removal of information from the package and present challenges in the wording of survey
21 measures. Evaluation of policies intended to communicate emissions and content
22 information via packages should focus upon understanding and use of this information rather
23 than knowledge or awareness.

24

25 Chapter 5.6 **Measuring the Impact of Anti-Tobacco Public Communication Campaigns**

26 The WHO FCTC Article 12 requires ratifying countries to “promote and strengthen
27 public awareness of tobacco control issues, using all available communication tools, as
28 appropriate.” Such campaigns seek to increase awareness and knowledge of tobacco-related
29 issues, with the goal of promoting individual behaviour change and support for and progress
30 toward policy and social change. This chapter provides a framework for evaluating multi-
31 component public communication campaigns in order to design effective campaigns,
32 identify and correct problems of campaigns that are in progress, and to document the

1 campaign's impact. Core methods include testing campaign messages during the design
2 phase, monitoring the reach of the campaign during implementation, and assessing core
3 constructs, including awareness, knowledge, attitudes and beliefs, support for policies, and
4 tobacco-related behavior change. The measures described in this chapter, like the campaigns
5 themselves, need to be customized to the specific content, purpose, and message of the
6 communication effort being implemented.

7 Regardless of the results of the public communication campaign (and particularly if it
8 failed to show results), evaluations should be made publicly available. A system to collect
9 and document campaign results would enhance our understanding both of how public
10 communication campaigns work and how to make them better.

11

12 Chapter 5.7 **Measures to assess the effectiveness of tobacco cessation interventions**

13 Article 14 of the WHO FCTC obligates ratifying nations to adopt policies that promote
14 access to evidence-based tobacco cessation interventions. Such interventions range from
15 less intensive efforts such as brief opportunistic advice by health care professionals to more
16 intensive efforts delivered to tobacco users either individually or in groups by trained health
17 professionals. Core constructs for evaluating access to tobacco cessation interventions
18 include: proximal variables such as awareness of cessation interventions, intermediate
19 variables including specific beliefs and attitudes about different cessation interventions, and
20 distal variables reflecting the utilisation of different cessation interventions.

21 The effects of policies facilitating access to tobacco cessation interventions can be
22 assessed through self-report using standardized surveys of current and former tobacco users
23 and also by review of records that document trends in the utilization of tobacco cessation
24 interventions (e.g., calls to a helpline, sales of stop smoking medications). Measures
25 described in this chapter are useful exemplars of how to assess utilization of cessation
26 services. Evaluations of the effects of policies to promote access to cessation interventions
27 should preferably employ a longitudinal design to assess the relationship between the
28 utilization of cessation treatments by current and former tobacco users and tobacco use
29 behaviors.

30

1 **Consolidated list of recommendations**

- 2 1. We strongly recommend that countries allocate adequate funds for evaluation and
3 surveillance activities. Where a budget for tobacco control programmes exists, we
4 recommend that an adequate percentage of it be earmarked for evaluation and
5 surveillance.
- 6 2. We recommend that high priority be given to the development and maintenance of a
7 reliable and accurate international system for tracking tobacco control policies.
- 8 3. We recommend that a repository be created and maintained to collect detailed
9 documentation of the methods and results of tobacco control policy surveillance and
10 evaluation studies, particularly those related to WHO FCTC policies. Those conducting
11 or sponsoring evaluations should be encouraged to add appropriate information to this
12 repository.
- 13 4. We recommend that governments work together to support efforts to develop common
14 methods and measures to support evaluations of tobacco control policies.
- 15 5. We recommend that governments mandate that tobacco companies provide them with
16 information that might facilitate the improvement of tobacco control policies and/or help
17 identify the potential for new policies.
- 18 6. We recommend that countries interested in developing a tobacco control surveillance
19 system be encouraged to join one of the international systems. Those countries that have
20 existing national surveys are encouraged to link to these international efforts.