

Application of a Better Practices Framework to Review Youth Tobacco Use Cessation

Catherine O. Maule, BA; Cheryl A. Moyer, MA; Chris Y. Lovato, PhD

Objective: To describe the Better Practices model and its application to review youth tobacco cessation practices. **Methods:** Growing emphasis on evidence-based practice in health has drawn attention to methods for the identification of “best practices.” Canadian organizations and government collaborated to develop a framework for “better” practices. **Results:** An international group of experts used the model to develop recommendations for the practice of youth cessation and further research needed

to advance the field.

Conclusions: Tension persists between the need for rigor in research and the need for practical intervention guidance. The Better Practices model provided a framework for action recognizing these needs, and its use resulted in a number of valuable products.

Key words: best practices, practice guidelines, evidence review, knowledge synthesis, youth tobacco cessation

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Decision makers and program planners in public health and health care are increasingly held accountable for the impacts of interventions (policies, programs, and other services aimed at improving health). Ensuring the greatest possible positive impacts on priority health problems requires knowing which interventions are likely to be most successful, as well as how these should be carried out and evaluated in the context of limited resources. The challenge for many is to locate information about what

will work best in different situations.

Currently, there is little consensus on what “best practices” are or how they are identified.¹ The predominant perspective holds that the best interventions are those demonstrated to be efficacious, ascertained through systematic reviews of the highest quality evidence available, ie, experimental studies with the highest degree of *internal validity* in their designs.¹⁻⁶ The most rigorous methods for the systematic review of health interventions, such as those employed by the Cochrane⁷ and Campbell⁸ Collaborations, place the greatest weight on evidence from randomized controlled trials (RCT),^{2,5} which limit error and bias in a study and maximize the ability to attribute outcomes to intervention conditions.⁶ Studies employing less rigorous designs may be included, but their results are generally given less weight in making recommendations.

A drawback of this approach is that it often leads to the conclusion that little evidence is available to guide decisions regarding interventions.⁹ This is particularly true for interventions that ad-

Catherine O. Maule, Manager; Cheryl A. Moyer, Director, Canadian Tobacco Control Research Initiative, CCS/NCIC National Office, Toronto, ON Canada. Chris Y. Lovato, Associate Professor, Department of Health Care and Epidemiology, Faculty of Medicine, University of British Columbia, Vancouver, BC Canada.

Address correspondence to Ms. Maule, Canadian Tobacco Control Research Initiative, CCS/NCIC National Office, 10 Alcorn Ave. Suite 200, Toronto, ON Canada M4Y 2E1. E-mail: cmaule@ctcri.ca

dress sociobehavioral health issues,³ which are affected significantly by an array of individual, social, and environmental factors. Rigorous study methods evaluating the efficacy of these interventions are expensive and time-consuming,² and often control for contextual factors that cannot be avoided in the real world.^{3,4} Thus, systematic reviews that emphasize internal validity at the expense of attention to *external validity* – that is, the applicability of an intervention and its outcomes to different populations and in different contexts – can be limited in utility for practical decision making.^{3,4,9-12}

Thus, there is growing concern within health promotion communities regarding the purpose and utility of “best practices.”^{1,13} Recently, some reviews and review methods have begun to emphasize other criteria, such as feasibility, sustainability, acceptability, or cost-efficiency^{6,13-16} on which the final choice of intervention depends.¹¹ Such reviews often incorporate information from surveillance and evaluation data, qualitative reports, and expert opinion;¹⁴ all of which are useful in the evaluation of complex interventions.⁴ Such evidence does not assure lack of bias, but practical information is critical to decision making, so reliable methods must be developed for evaluating both quantitative and qualitative evidence.^{9,10}

There is a critical demand for approaches to identify tobacco control interventions that are both effective *and* practical. The Canadian Tobacco Control Research Initiative (CTCRI, a partnership of Canadian government and non-government organizations)^a has developed, through an extensive review and consultation process, a framework to connect the needs of policy and practice by using the best available science and experience. Known as the Better Practices model, it consciously defines better practices – rather than *best* practices – as plausible, appropriate, evidence-based and well-executed actions and processes that will contribute to significant reductions in the current and future burden of dis-

ease.¹⁷ The model represents a 3-phase cycle in which better practices are (I) identified based on a “world” of evidence; (II) selected, implemented, and evaluated as appropriate to context; and (III) synthesized and reported back to the world of evidence. The model has been applied to several reviews of tobacco control interventions,¹⁸ which have informed refinement of the methodology.

This paper describes the application of Phase I of the Better Practices model, Building on the Past, by an international team of experts in a review of youth tobacco-use cessation. Faced with a growing demand for guidelines regarding effective interventions to support youth cessation,¹⁹ the team grappled with how to proceed given the limited number of rigorous studies published in this emerging field. The Better Practices model was used because it supports consultation with a broader variety of evidence, followed by identification of knowledge gaps as well as better practices. The expectation was that the process would yield many recommendations for research and few, if any, for practice.

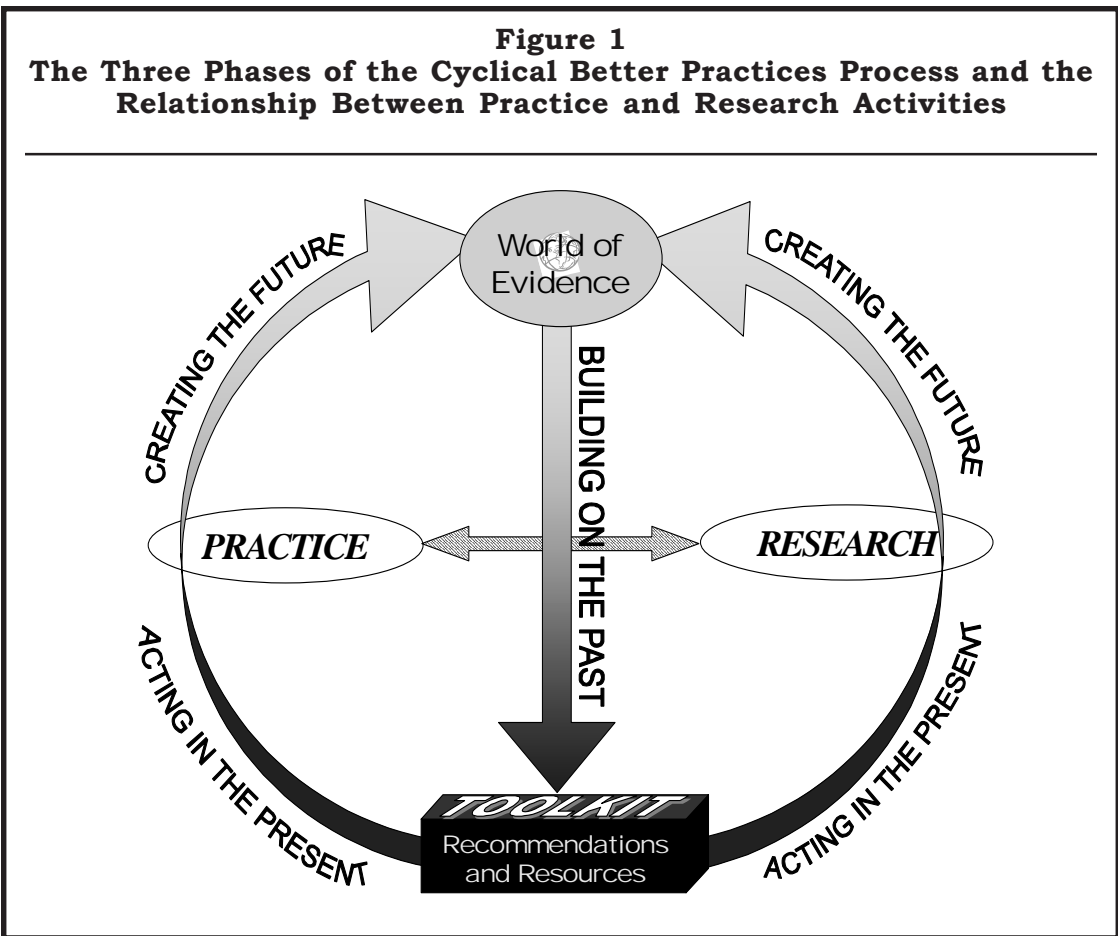
This paper describes the development of the Better Practices model, with a focus on Phase I, and highlights some of the lessons resulting from the experience of the application of Phase I to youth cessation. Insights regarding the process and the strengths and weaknesses of Phase I of the model are discussed. Outcomes of the process, including recommendations for research and practice, are discussed in accompanying papers by McDonald,²⁰ Backinger,²¹ and Milton.²²

Better Practices Model

Demand for a new approach. In the mid 1990s, at a point when tobacco use rates in Canada had ceased to decline, divisions of the Canadian Cancer Society (CCS) expressed the need for tools to identify and implement effective, practical “best” practices in tobacco control. At the same time, the CCS and its research partner, the National Cancer Institute of Canada (NCIC), launched the Canadian Tobacco Control Research Initiative (CTCRI) with the mandate to stimulate a sustained and coordinated research agenda that has a direct impact on tobacco control policies and programs in Canada. With the support of Health Canada, the CTCRI commissioned a re-

^a At the time of publication, partners in the CTCRI were: Canadian Institutes of Health Research; National Cancer Institute of Canada and Canadian Cancer Society.

Figure 1
The Three Phases of the Cyclical Better Practices Process and the Relationship Between Practice and Research Activities



view²³ of existing models of and approaches to best practices.

No common definition of, or approach to, best practices could be identified at the time.²³ The CTCRI therefore facilitated formation of the National Tobacco Best Practices Working Group, which moved forward with the development of a framework for best practices in tobacco control that could be applied to other health areas. Several iterations of a framework were developed²⁴ and tested,¹⁸ building on work of the Advisory Committee on Community Health (Canada),¹⁴ the Task Force on Community Preventive Services (US),¹⁵ the Canadian Heart Health Initiative,¹⁶ the Cochrane Collaboration,⁷ and others.

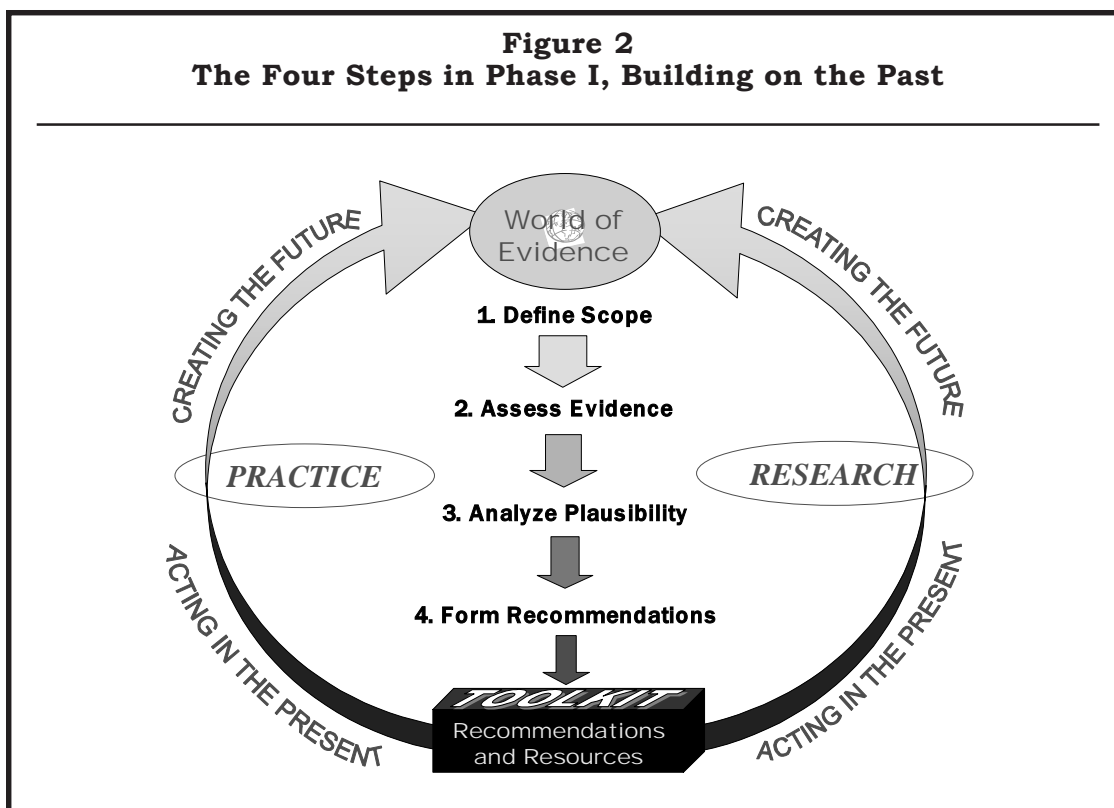
The model presented here is an evolved version of this early work. It is not meant to supplant other models or approaches to knowledge-based practice, but to draw upon these frameworks to move the field

toward an approach that integrates the need for rigor with the need for action, and to stimulate continuous improvement of systems for better practice.

Foundations of the Better Practices approach. The core principles of *better practices* are that successful solutions to complex problems must draw upon both science and experience, and that what is "best" is subjective, situational, and evolving over time. In other words, scientific evidence about what is effective is inherently limited – the ultimate determination must be made by the practitioners and decision makers who understand the scientific evidence, the specific needs of a given population and situation, and the resources available to them at the time.^{1,3,4,9,12}

The Better Practices model has 3 *phases*, within which there are a number of steps. The phases build on and contrib-

Figure 2
The Four Steps in Phase I, Building on the Past



ute to each other, making the overall process cyclical and iterative:

I. Building on the past: An interactive, intersectoral team carefully defines a focus and set of questions, then works together to review knowledge from a variety of sources, including research of many types and also practical experience. Both the quality and plausibility of evidence are considered. Recommendations and resources are then compiled for practice and for further research.

II. Taking action in the present: Decision makers use the recommendations and tools to select activities – programs, policies, and research – appropriate to their situations, then follow mutually agreed-upon protocols to carry out the chosen research or practice activities. Progress is monitored and evaluated against predetermined expectations.

III. Contributing wisdom to the future: Those who have implemented “better” research and practice activities reflect on the processes and outcomes of their work, and report findings to stakeholder commu-

nities where the wisdom of experience can be drawn upon for future knowledge syntheses and better practices.

An individual, group or coalition, institute or organization may initiate better practices at any phase of the process, and may focus on one or all of the phases. This will depend largely on the mandate of the organization and the reasons for undertaking better practices. Processes employed in each phase and the subsequent outcomes will also vary with the purpose, the people involved, the methods used, and so on. The critical success factors, whatever the starting point, are to *establish* and *adhere to*: (a) a focus with clear parameters, (b) an interactive team whose members represent a variety of perspectives, (c) a conceptual framework, (d) an agreed-upon sequence of specific steps, and (e) linkages to adjoining phases.

Better Practices Process (Phase I)

This section describes a sequence of 4 steps associated with the first phase of the model, Building on the Past, which is the

Table 1
Considerations Pertaining to Intervention and Target Population
in the Definition of Review Scope

	A. INNATE / STATIC	B. VARIABLE	C. OUTCOMES
	<i>Conditions prior to intervention: arrows indicate consideration as innate or variable.</i>	<i>Conditions which may change through course of intervention.</i>	<i>Primary and secondary for target and success of intervention.</i>
1. TARGET	<p>LEVEL individual→population→environment</p> <p>PERSPECTIVE Patient, provider, decision-maker</p> <p>CHARACTERISTICS</p> <ul style="list-style-type: none"> •Demographics •Individual differences (health status, social traits and groups, etc.) •Demand for intervention •Environments (physical, social political, etc.) 	<p>DESIRED CHANGE</p> <ul style="list-style-type: none"> •Health condition or behavior •Knowledge, attitudes, beliefs •Exposures, environments •Access to services •Quality of life, experience of health condition/treatment 	<p>IMPACT/OUTCOME INDICATORS</p> <ul style="list-style-type: none"> •Magnitude of change •Attrition, adherence •Intended vs. unintended effects •Maintenance (sustained impact) vs. relapse •Methods of measurement and reporting, comparison •Generalizability, replicability
2. INTERVENTION	<p>CONTENT, COMPONENTS</p> <ul style="list-style-type: none"> •Theory, CONTENT •Objectives •Setting •Implementation (protocol, format, structure) <p>CONTEXT</p> <ul style="list-style-type: none"> •Resources, capacity •Complementary interventions •Competing interventions, activities, exposures •Culture 	<p>DELIVERY</p> <ul style="list-style-type: none"> •Provider •Channel and access •Degree of exposure •Reach •Recruitment •Resources, support 	<p>PROGRAM/PROCESS INDICATORS</p> <ul style="list-style-type: none"> •Fidelity •Quality •Penetration (reach, uptake) •Enforcement •Adoption, institutionalization •Satisfaction •Cost-effectiveness

focus of this paper. Each step is a process that is both an essential component of the whole and a better practice in itself.

Step 1: Define the scope of review – carried out by an interdisciplinary, intersectoral team.

The objective of the first step is for the team to articulate questions for the review and a plan for conducting Phase I, including identification of the specific populations and interventions to be examined, the types of evidence that will be consulted, and the methodology that will be used to assess the quality and applicability of the evidence.

Table 1 outlines considerations for defining the population(s), health condition(s) or behavior(s), and intervention(s) that are the subject of the review. In the top row, labelled “target,” are characteristics of the target population; in the bottom row are

characteristics of the intervention. The characteristics are divided into 3 columns: (A) those which will likely remain constant for the population and the intervention throughout the course of the intervention, (B) those which may change during or as a result of the intervention, intentionally or unintentionally, and (C) indicators of the potential outcomes of an intervention. The team may use this or other tools, but must end up with a clear set of questions regarding “what works” to set the parameters of the review.

The team can then decide which sources of evidence are appropriate for consideration, such as peer-reviewed journals, government reports, book chapters, program and policy intervention descriptions, and surveillance reports. Included in this is when and how “experts” will be involved. Experts may include

individuals who represent the target population (ie, those having or at risk for the behavior or condition being addressed), or the family or peers of the target population; program deliverers or practitioners with experience addressing the behavior/condition or implementing the intervention(s) being reviewed; community or state/provincial level decision makers who have faced or addressed the problem in their communities/constituencies; or investigators who have extensive experience working with the population or the interventions in question, or any that are similar.

Experts can provide information about which interventions are being used in the field, the level of demand or readiness for change, and factors that may help or hinder implementation of interventions; they can also help to fill in gaps in knowledge by identifying other sources of information or recounting experience. Inclusion of expert advice may be carried out through key informant interviews, focus groups, or other surveys as part of Step 2 (Assess Evidence), Step 3 (Analyse Plausibility), or Step 4 (Compile Recommendations).

Finally, the team must agree on how the chosen evidence will be reviewed and interpreted. Methods and processes may build on those used in other reviews^{6-8,15} or may be derived by the team as appropriate to the chosen topic. Evaluation of all evidence should include both *quality* (internal validity) assessment and relevance or *plausibility* (external validity) analysis. More information about each of these processes is provided in the descriptions of Steps 2 (Assess Evidence) and 3 (Analyse Plausibility), respectively.

Step 2: Collect and Assess Evidence – led by a subgroup of research experts.

The objective of the second step is to assemble all relevant evidence and information, and from this, to identify efficacious interventions.

This step represents the “meat” of most systematic reviews. Using methods agreed to in Step 1, this step involves the systematic collection of evidence, assessment of quality, extraction of data from each source, compilation of data into tables or charts for comparison, appraisal of its overall strength, and synthesis of intervention options.

Assessment of the quality of evidence is a critical component of this step. This includes evaluation of both study design

and execution. Although studies that randomize participants between intervention and control conditions (ie, RCTs) are generally regarded as the highest quality due to the lesser chance that biases will affect outcomes, these studies are expensive and time-consuming for many public health and health promotion activities,² and so, there may be few available.⁹ They may also fail to provide the wide scope of information needed by decision makers.^{3,4} For this reason, the team should be prepared to evaluate the quality of a broad range of evidence.¹⁰

Quality assessment also informs appraisal of the strength of evidence, which in turn informs the formation of recommendations (Step 4). Generally, teams should have agreed-upon standards for how much evidence, of what quality, is needed to demonstrate that an intervention is worth recommending. Significant gaps in knowledge will begin to emerge at this point and may be considered for research recommendations.

Step 3: Analyse Plausibility of the Evidence – carried out by the full interactive team, in consultation with experts if appropriate.

The objective of this step is to articulate the plausibility (feasibility and/or effectiveness in different populations and contexts) of the actions (interventions and research) identified as efficacious or needed in Step 2 (Assess Evidence).

The evidence collected and analysed in Step 2 must be critically analysed to ascertain information about social, economic, environmental or other conditions necessary to support good decision making.^{3,4,9,10} The team must establish how the knowledge obtained can inform the original review questions, and how plausible the identified interventions or research questions may be for real action. Considerations of *plausibility* include:

- *Time sensitivity* of the information;
- Feasibility of *evaluation* of actions in question;
- Prospect of reliable *replication* of actions;
- Likelihood that actions are *generalizable* to different populations;
- Evidence that actions are *cost-effective* or *cost-efficient*; and
- Overall *coherence* of the information, implications of the whole picture, for example,
 - Consistencies and inconsistencies

- among the sources,
- Strength of the evidence or how compelling,
- Obvious caveats or red flags,
- What can be said in response to the original questions (ie, what is known that will inform decisions about each aspect of an intervention).

Step 4: Form Recommendations and Compile Resources – led by a subteam of policy/practice experts, involving the full interactive team.

The objective of the final step in Phase 1 is to interpret, as objectively as possible, the information obtained from the review process, and then to develop concrete recommendations for action supported by tools for decisionmaking, implementation and/or evaluation.

The team uses the information gathered in Steps 2 (Assess Evidence) and 3 (Analyse Plausibility) to form recommendations and compile resources for the following:

- A. *Practice*: information about which policies, services, programs, and other interventions are likely to have a positive impact on health. Included may be specific programs, program principles or types, guidelines or instructions, policy implementation protocols, theoretical or delivery components, etc. Also included may be “worst” practices – those which either have no effect at all or which may cause harm. Levels of strength may be assigned to the recommendations based on the team’s confidence in the information obtained.
- B. *Research*: information regarding gaps in the current knowledge, as assessed by the team. These may emerge from reflection on the original review question(s) as defined in the scope (Step 1) or from considerations of plausibility. The team may suggest broad topics addressing large gaps in knowledge or specific questions that will inform greater coherence of intervention components. The team may also choose to assign priority or suggest methods appropriate for addressing certain questions.
- C. *Resources*: information, tools or considerations to support decision making, and use of the recommenda-

tions for action. For example, those who make decisions regarding programs and policies may benefit from needs assessment surveys, fundraising guidelines, decision-making tools, implementation protocols, training manuals for program deliverers, or evaluation instruments. Those who make decisions regarding funding programs may benefit from reports on the state of the research and knowledge gaps, and those who carry out research may benefit from bibliographies or summaries of relevant studies and theoretical models, guidelines for writing grants, or technical support regarding research methods or tools.

The recommendations and resources constitute a “toolkit.” This should be constructed in such a way that users – program and policy decision makers and implementers, researchers and research funders – can easily access and apply the information they need. This refers, for example, to the depth of information, the separation of information for different audiences, the language(s) used, and literacy levels.

Once complete, the toolkit must be promoted to the appropriate audiences in order to benefit Action in the Present – labelled Phase II within the Better Practices model. The steps in Phase II will not be described in detail here, but are *promotion, selection and adoption, implementation/execution, and evaluation/investigation*. Lessons learned from the implementation of policies and programs, and the execution of research, are essential to the knowledge development process, and will be informative to future reviews and actions if *synthesized and reported* through broadly accessible channels. These final steps compose Phase III of the Better Practices model, Creating the Future; they complete the cycle to make the model iterative and cybernetic. For a complete description of the steps associated with Phases II and III please see the Canadian Tobacco Control Research Initiative website (www.ctcri.ca).

The following section describes how the Better Practices model was applied to study youth tobacco-use cessation; accompanying articles by McDonald, Backinger, and Milton describe, respectively, the details of the review process (Step 2, Assess Evidence), the interpretation of the evidence

(Step 3, Analyze Plausibility) and development of a decision-making guide for practice (Step 4, Form Recommendations), and the articulation of research gaps and recommendations (Steps 2-4).

Application of the Model

Phase I process: building on the past.

Recognizing that there is a high demand for information regarding youth tobacco-use cessation interventions, and a relative paucity of scientific evidence, a 6-member organizing team collaborated to address the question of what interventions would best support young tobacco users (ages 12-24) in quitting. The team included representatives from the CTCRI, the US Centers for Disease Control and Prevention Office on Smoking and Health (CDC), the US National Cancer Institute (NCI), and the Youth Tobacco Cessation Collaborative (YTCC). The Better Practices model was identified as a useful tool to guide this work because it calls for the incorporation of a broad range of evidence and expert advice, and leads to production of recommendations for both practice and research.

Phase I (Building on the Past) was planned to begin with a review of published scientific evidence, including any available information pertaining to youth cessation. This was to be followed by consultation with a broad group of practitioners and decision makers from Canada and the United States. Recommendations were expected to be primarily for further research.

The parameters of the literature search were initially defined (Step 1, Define the Scope) to encompass youth between the ages of 12 and 24, for all types of interventions including direct personal contact, self-help, policies and media, and so on. A researcher with expertise in youth cessation was contracted by the organizing team to conduct a review of the evidence (Step 2, Assess Evidence). It was requested that the review address a range of aspects of interventions, including characteristics of youth and of intervention delivery.²⁵ The results of this review²⁵ were presented at a workshop several months later, attended by 28 youth cessation researchers, program planners and others working with youth, and policy decision-makers from both Canada and the United States. This group (referred to as the advisory panel) was charged with

interpreting the information obtained in the review (Step 3, Analyze Plausibility) and forming plausible recommendations for practice and for further research (Step 4, Form Recommendations).

The advisory panel endorsed the collaborative approach put forth by the Better Practices model. However, following considerable deliberation, the panel concluded that it was not prepared to form recommendations for action (Step 4) based on the review that was conducted. It was strongly advised that a reanalysis of evidence (Step 2) be conducted. This recommendation was based on 2 primary concerns. First, practitioners identified a series of key questions, pertaining to implementation protocols, and characteristics of youth and their environments, which had not been previously identified by the organizing team. Second, members of the panel representing an academic research perspective believed that studies included in the review should be critiqued more stringently using a systematic scoring protocol. The panel ultimately agreed that a subgroup should reexamine the evidence in accordance with the recommendations of the panel and report these findings to the larger group.

The second evidence review (Step 2) was carried out by a team comprising research experts from the advisory panel, together with 3 new members (referred to here as the evidence subgroup), through a process of face-to-face meetings and electronic correspondence.²⁰ For this review, the parameters were narrowed to include only scientific studies in which: the youth population was between 12 and 18 years of age; there was a measured cessation outcome; and the intervention was delivered to individuals or small groups. All media or policy interventions that were included in the first review were excluded by this group, as were interventions with outcomes such as reduction in use or readiness to quit.

Of those studies that met the inclusion criteria, many showed little or no significant effect on cessation, and those that did were often so heterogeneous that they could not be compared to other studies for validation.²⁰ The subgroup considered several characteristics of the study population and intervention delivery, but again, heterogeneity and gaps in what was reported²¹ limited the ability to compare studies. Some aspects of *plausibility* were

considered: Most interventions were reported within the past 20 years, so were reasonable in terms of time sensitivity; but few practices could be assessed for replicability, evaluability, or generalizability. With respect to coherence, or the overall implications of the information, there were many gaps. The evidence subgroup concluded that there was little that could be recommended with any confidence about the types of interventions likely to help youth successfully quit tobacco use.

The full advisory panel then reviewed the outcomes of this review and concurred that no specific interventions could be recommended. However, in accordance with the Better Practices model, they agreed that a critical need remained to develop instructions, guidelines, resources for policy- and program-related decision making, implementation, and evaluation. To address this need, members of the advisory panel, representing practitioner and decision-maker perspectives, convened with 6 additional experts as an expert subgroup.

The expert subgroup reviewed evidence from the 2 reviews^{20,25} and drew on other sources of information regarding health behaviour theory and program evaluation.²³ This subgroup concluded that the most important advice for practitioners is to proceed cautiously in selecting and implementing an intervention, as there is much that makes an intervention successful other than the content.²² The subgroup also recommended that program providers evaluate the process and outcomes thoroughly in order to share outcomes and lessons learned with others in the field.

Despite the lack of specificity in this advice, the subgroup had amassed sufficient knowledge from the process and from experience to provide guidance regarding these activities. They developed a resource to help direct practitioners and decision makers in identifying, implementing, and evaluating better practices for youth tobacco-use cessation.

Phase I Outputs: Resources and Recommendations

The expected outcomes of the application of Phase I are recommendations for research and for practice, and the compilation of resources to support those. Products resulting from the present application – including tools to support the prac-

tice of youth cessation, documentation of the state of the knowledge about effective youth cessation and recommendations to improve upon it, and the description of the process itself – were designed to add value to shaping and advancing the field of youth tobacco-use cessation.

The primary practice-oriented product is *Youth Tobacco Cessation: A Guide for Making Informed Decisions*.²² It contains information to help practitioners, decision makers, and administrators throughout the processes of planning, selecting, and evaluating youth cessation interventions. Though there was little scientific evidence on which to base the advice in the *Guide*, its relevance, scope, and logical utility should prove reliable due to the wealth of experiences and perspectives on which it was based.

The expert subgroup developed a comprehensive and practice-relevant set of research questions based on the discrepancies between the full advisory panel's original questions and the information obtained through the review process. Most of these pertain to implementation protocols and matching interventions to particular youth and environments. As well, the evidence subgroup was able to identify methodological flaws, which should be addressed in the design and execution of future intervention studies. The accompanying article by Backinger²¹ describes the research gaps and needs in terms of methodology and reporting as well as topic.

The initial evidence review²⁵ is also a valuable contribution to the field and represents the most comprehensive review of youth cessation available at the time it was published. The rigorous system used for the second analysis of evidence represents a useful product itself, as it may be applied to future reviews of emerging youth cessation evidence. Less tangible but equally important, relationships were established and nurtured between researchers, practitioners, funders, and decision makers in 2 countries. These serve as a foundation on which new activities, addressing research gaps and implementation barriers, are already being initiated. Collaboration was essential to this process and will continue to be an important mechanism for ongoing better practices in the future.

DISCUSSION AND CONCLUSIONS

This paper has presented one perspec-

tive on “best practices” and the use of systematic reviews to identify these, and has described a new approach to “better practices” illustrated by its application to the review of youth tobacco-use cessation interventions. Although the application led to the development of several useful products, it also pointed out where improvements were needed in the model itself.

Step 1: Definition of Scope

The Better Practices model instructs an interdisciplinary, interactive team to clearly define: characteristics of the population and intervention to be reviewed, types of evidence or information to be considered, and process for considering the internal and external validity of the evidence. In applying the model to the review of youth cessation, the advisory panel was clear about the population and intervention questions in which it was interested, but less so regarding the types of evidence or the process for assessing and analyzing it. This had repercussions throughout the process.

Step 2: Assessment of Evidence

As a result of how the scope was defined (Step 1), decisions regarding the second assessment of evidence (Step 2) fell to the evidence subgroup. The subgroup then made decisions regarding study methods, content, aims, and outcomes that affected the overall process, resulting in a stronger but narrower interpretation of the evidence.

Step 3: Analysis of Plausibility

Given that little evidence was obtained in Step 2 (Assessment of Evidence), it was difficult for the advisory panel to add anything of substance regarding the plausibility of interventions described by the evidence.

Step 4: Formation of Recommendations.

In spite of limited evidence, the expert group was committed to completing Phase I of the model (Building on the Past) in order to produce practical recommendations for the field. When the expert subgroup gathered to discuss development of a resource for practitioners and decision makers, members found that they could offer considerable advice based on their own experience in planning, implementing, and

evaluating a variety of interventions with youth. *Youth Tobacco Cessation: A Guide for Making Informed Decisions* is a product of this commitment and knowledge – useful in scope, relevance, and utility – that would have been unlikely in the context of a traditional systematic review.

Without question, the dynamics of applying the model were complex. Tension existed between the need for scientific rigor and the need for immediate action. This research-practice gap is not new, particularly in the context of “best practices,” nor was it unexpected. There is growing emphasis in all areas of health care and health promotion on increasing the translation of science to practice, and it will simply take time to understand the most efficient and effective ways of achieving this.

In addition, the US and Canadian perspectives differed, as there has been significant emphasis in Canada on population interventions and on the integration of science and practice. Thus from a Canadian perspective, the omission of population-level interventions from the assessment of evidence is a significant gap. Stakeholders in Canada are currently exploring ways to address this gap.

Differing perspectives and the number of people involved (over 40 including contractors) slowed the process and proved at times to be unwieldy. Managing the interactions and products among the members of the advisory panel and subgroups, as well as the face-to-face meetings (4 in 10 months), was demanding of both human and financial resources. However, the intersectoral collaboration enabled generation of products that can be endorsed by a wide variety of stakeholders.

In accordance with the better-practices process, it is essential at this stage to consider how the products developed in Phase I will be translated, disseminated, and otherwise integrated into current practice and research activity, and evaluated to inform future practice – in other words, how phases II (Action in the Present) and III (Creating the Future) will be carried out.

Given the perceived level of demand in the field, it is anticipated that the youth guide will be appreciated by practitioners and decision makers. Placing priority on the research gaps may require more active promotion by members of the Youth Tobacco Cessation Collaborative, by engaging research funders to support the

work, or by encouraging universities and other training programs to build the capacity. The better-practices process is ongoing and iterative, and efforts to improve the practice of youth cessation must also be so.

The development, testing, and improvement of the Better Practices model reflect its basic principles: Good solutions to complex problems draw upon both science and experience; they build on past knowledge and experience, make sense under present conditions, and contribute to better solutions in the future; and they are subjective, situational, and evolving. In spite of the challenges encountered and adjustments made in this application, these underlying principles proved robust in guiding the group toward its goal. The model has demonstrated its flexibility both here and in other applications. It is a tool not for the identification or labelling of "best" practices, but for an approach to "better" practices and processes throughout the ongoing course of knowledge production and utilization. The model will continue to evolve through the application and synthesis of experience. It is hoped that its use will stimulate new linkages between research and practice, and guide decision makers toward ever-better approaches to the prevention of chronic disease.

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