Developing the *Guide to Community Preventive Services*—Overview and Rationale

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Contents:

When the *Guide to Community Preventive Services: Systematic Reviews and Evidence-Based Recommendations* (the *Guide*) is published in 2001, it will represent a significant national effort in encouraging evidence-based public health practice in defined populations (e.g., communities or members of specific managed care plans). The *Guide* will make recommendations regarding public health interventions to reduce illness, disability, premature death, and environmental hazards that impair community health and quality of life. The *Guide* is being developed under the guidance of the Task Force on Community Preventive Services (the Task Force)—a 15-member, nonfederal, independent panel of experts.

Subject matter experts, methodologists, and scientific staff are supporting the Task Force in using explicit rules to conduct systematic literature reviews of evidence of effectiveness, economic efficiency, and feasibility on which to base recommendations for community action. Contributors to the *Guide* are building on the experience of others to confront methodologic challenges unique to the assessment of complex multicomponent intervention studies with nonexperimental or nonrandomized designs and diverse measures of outcome and effectiveness.

Persons who plan, fund, and implement population-based services and policies to improve health at the state and local levels are invited to scrutinize the work in progress and to communicate with contributors. When the *Guide* is complete, readers are encouraged to consider critically the value and relevance of its contents, the implementation of interventions the Task Force recommends, the abandonment of interventions the Task Force does not recommend, and the need for rigorous evaluation of the benefits and harms of promising interventions of unknown effectiveness.

Medical Subject Headings (MeSH): community health services, decision making, evidence-based medicine, population-based interventions, practice guidelines, preventive health services, public health practice, task force. (Am J Prev Med 2000;18(1S):18–26)

Introduction

The *Guide to Community Preventive Services: Systematic Reviews and Evidence-Based Recommendations* (the *Guide*), being prepared by the Task Force on Community Preventive Services (the Task Force), will provide public health practitioners and decision makers with recommendations regarding population-based interventions to promote health and to prevent disease, injury, disability, and premature death in communities. The *Guide* aims to promote evidence-based public health practice in the United States. For this reason, it has been described as the public health companion to the *Guide to Clinical Preventive Services*, which aims to promote evidence-based prevention for individuals.[1] Although the primary focus for the *Guide* is on interventions that have been evaluated in industrialized nations, audiences in developing nations also might consider the information relevant to their needs.

The Task Force expects that the *Guide* will be useful to practitioners (public health and clinical) and deci-

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sion makers for three reasons. First, most practitioners and decision makers value scientific knowledge as a foundation for health-related decision making. Second, the scientific literature regarding a particular health problem often is large, inconsistent, uneven in quality, and sometimes inaccessible to many busy practitioners who could put research findings into practice. Third, a panel of experts with the time, experience, objectivity, and opportunity to help interpret the content and quality of the literature is seldom available to practitioners for consultation on demand. Thus, an evidence-based guide can help overcome these obstacles to making the best use of what is known regarding a public health problem and its potential solutions. This article describes the *Guide*'s audience and purpose, content and conceptual approach, methods and standards for developing evidence-based topics (chapters), and plans for disseminating and implementing its recommendations for public health action. Several important definitions adopted by the Task Force are given below:

Community: A group of individuals who share one or more characteristics.

Community preventive service: An intervention (activity) that prevents disease or injury or promotes health in a group of persons.

Determinant: Causal factor hypothesized to affect health outcomes; can include (1) demographic and population (host) factors; (2) environmental factors such as disease vectors or transmission agents (e.g., food or water); (3) social, economic, educational, health care, cultural, or other systems; or (4) preventive interventions.

Effectiveness: Improvement in health or behavioral outcome produced by an intervention in a community setting.

Evidence-based method: A strategy for explicitly linking public health or clinical practice recommendations to the underlying scientific evidence that demonstrates effectiveness.

Health outcome: Measure of health or loss of health, including (1) mortality—rates of death, years of potential life lost, quality adjusted life years gained, disability adjusted life years lost; (2) morbidity—disease or injury rates, infertility rates, disability, chronic pain, functional status, psychiatric disorders, and so forth; and (3) pregnancy and birth rates. Biologic markers and behaviors are considered *intermediate outcomes*. Health outcomes frequently are used to define both harmful and beneficial health effects of specific population-based prevention interventions.

Intermediate outcome: Variable that occurs in the causal pathway between a determinant and the final health outcome. Examples include: (1) levels of risk behaviors; (2) rates of access to, usage of, and coverage of preventive services; (3) physiologic measures (e.g., blood pressure or cholesterol); and (4) levels of environmental exposures. In certain circumstances, one health outcome leads to another health outcome; the original health outcome, therefore, becomes an intermediate outcome. Diabetes, for example, can lead to cardiovascular disease or a sexually transmitted infection can lead to infertility.

Public Health Practitioners: Persons responsible for providing public health services, regardless of the organization in which they work. This definition includes a variety of occupational categories commonly employed in public health agencies, managed care plans, community health centers, and academic institutions. Persons who occasionally contribute to public health activities in the course of fulfilling other responsibilities are not included under this term.[28]

The *Guide*'s Audience and Purpose

The Task Force has identified as its primary target audience persons involved in planning, funding, and implementing population-based services and policies to improve health at the state and local levels.[2] Such persons could be those responsible for developing policy or implementing programs in a variety of organizational contexts (e.g., health departments, managed care plans, legislatures, academic centers, and community coalitions). In health departments, legislatures, and academic centers, users of the *Guide* could include chief executives, program managers, administrators of operating units, legislators and their staff, budget analysts, researchers, communications specialists, clinicians, and other categories of practitioners. In managed care plans, benefits managers, purchasers of prepaid services, medical directors, clinical staff, administrators, and other practitioners of population-based health care might reach for the *Guide* on a variety of occasions. The news media and the general public are also potential users of the *Guide*.

The purpose of the *Guide* is to provide needed information to diverse audience members to support their decisions on strategies, policies, and programs that are most relevant, effective, and cost-effective for their communities or enrolled populations.[2] Local health officers and medical directors of managed care plans, for example, have a common interest in population-based interventions. And in many program areas (e.g., immunization) such leaders must make decisions that affect individuals as well as populations. Users can weigh the *Guide*'s recommendations, which are based on completed research, against other factors such as (1) the match between a community's needs and resources; (2) prior experience; (3) local preferences; and (4) political will. Users can consult the *Guide* to determine first, what the available body of scientific evidence has demonstrated regarding the effectiveness of interventions in studied communities; second, what a panel of experts, who systematically examined that

evidence and deliberated on its implications, has recommended regarding using those interventions to address a community's health problems; and third, whether the studied populations are sufficiently similar to their own circumstances of interest to justify acceptance of the recommendations and supporting evidence.

During the field-testing of an early draft of the chapter Vaccine-Preventable Diseases: Improving Vaccination Coverage in Children, Adolescents, and Adults,[3,4] focus-group participants observed that the *Guide*'s original title led them to expect a manual on implementing effective interventions. The *Guide*, however, is not a how-to manual or cookbook of interventions, and the new subtitle (*Systematic Reviews and Evidence-Based Recommendations*) makes that clear. To determine how to implement an intervention, users must seek additional details from other manuals, some of which are cited in the *Guide* or the original studies of the interventions reviewed.

Content and Rationale (Conceptual Approach)

Content of the *Guide*

The scope and organization of the *Guide* is described in detail and justified elsewhere.[5] Briefly, however, the Task Force envisioned a *Guide* that would (1) encompass *Healthy People 2000*[6] and *2010* priority areas[7]; (2) have a broad scope of problem areas and related interventions; (3) address risk behaviors with the largest collective impact on health; and (4) address major causes of ill health across the life span (i.e., children, adults, and older adults). To put evaluated interventions and their consequences into context, the front matter of the *Guide* will include discussions regarding the Context for Community Interventions, Methods for Developing the *Guide*, and issues of Defining, Implementing, Evaluating, and Monitoring Prevention.

In each of the 15 evidence-based topic areas, or chapters, the *Guide* will:

- describe the importance of the health issue in terms of community health burden,
- justify the selection of interventions that were evaluated,
- present the evidence of effectiveness for each intervention, and
- explain the link between the evidence of effectiveness and the recommendations offered.

Together, the 15 chapters will present the results of the systematic reviews of evidence on the effectiveness of interventions and recommendations based on the evidence. The recommendations for each topic area in the *Guide* will be based primarily on evidence of the effectiveness of interventions that have been evaluated in empirical studies meeting or exceeding a minimum standard of quality. The Task Force will consider other reported effects (e.g., nonhealth, adverse, beneficial, or unanticipated by the study interventionists) and other characteristics of each intervention before making a recommendation. Relevant characteristics include the specific populations and practice settings in which the interventions were evaluated, the results of economic evaluations, and barriers to implementing the interventions in other circumstances.

The *Guide* in its initial publication will be the first installment of an evolving document; in fact, it is neither comprehensive nor definitive. In the first volume of the *Guide*, such important topics as nutrition have been deferred until a future publication because of time and resource constraints. In addition, conclusions based on completed research available at the closing date of the systematic reviews might have to be revised as new research findings become available in the future.

Rationale for Developing the *Guide*

Optimism regarding the potential impact of the *Guide* on community health and quality of life is based on a presumed path of influence that links the *Guide*, improvements in public health practice, and a favorable impact on the health status and quality of life for communities. The presumed path of influence is as follows:

- Both public and private partners involved in the development process disseminate the *Guide*, using a variety of complementary media and tailored products.
- After carefully weighing all factors (e.g., community and organization resources, policies, structure, and capacity), decision makers engaged in delivering personal and population-based preventive services use or refer to relevant portions of the *Guide*. Communicators prepare and deliver messages regarding which interventions might be given high priority by local audiences of practitioners, advocates, and residents of particular communities. And selected interventions are integrated into service programs with clearly defined objectives and dedicated resources.
- More widespread implementation of effective interventions, discontinuation of ineffective interventions, and rigorous testing of promising interventions of unknown effectiveness lead to improvements in population health status over the long term.

Conceptually, the *Guide* also will emphasize the importance of four principles: (1) promoting evidence-based public health policies and practices; (2) identifying gaps in intervention research; (3) integrating related public health initiatives at the level of the community; and (4) addressing environmental and ecosystem challenges. The importance of each princi-

ple in shaping the content of the *Guide* is explained in the following section.

Promoting Evidence-Based Public Health Policies and Practices

Policymakers must render value judgments regarding a large array of public health problems and potential solutions, in part by balancing competing demands for action from interest groups and advocates. Knowing what works, what does not work, and what has not been fully documented, based on information compiled by an impartial source, is a great benefit. The *Guide* will serve as one such impartial source of policy-relevant information. Instituting evidence-based public health policies promotes focusing limited community resources on the best practices for responding to the highest priority problems.

The Institute of Medicine has observed that decision making in public health often is driven by "...crises, currently 'hot' issues, and concerns of organized interest groups."[8] In theory, public health practitioners incorporate scientific evidence of effectiveness while making management decisions, developing policies, and implementing programs. However, in practice, these decisions often are heavily influenced by short-term demands rather than long-term considerations; consequently, policies and programs are frequently developed around anecdotal evidence and expert opinion rather than empirical evidence.[9]

Both personal health care and public health practice are being moved in the direction of evidence-based practice by the same influences. Some of those influences include public demands for accountability, competing demands on limited resources, and a large and growing evaluation literature in some topic areas. In addition, both personal health care and public health practice are simultaneously being affected by radical changes in (1) the financing of health care, (2) public-to-private shifts in responsibility for the delivery of preventive services, and (3) the use of partnerships and coalitions that cut across traditional boundaries of clinical and population-based practice.[10] Experience with the *Guide to Clinical Preventive Services* has demonstrated that having an impartial source of evidence-based information can help policy makers make better judgments regarding how to employ limited prevention resources across a range of health problems and clinical settings.[11]

The Task Force hopes this *Guide* will fulfill a comparable role in the development and implementation of population-based policies in a variety of community settings and among beneficiaries of managed care programs. Some of the reviewed interventions will be shown to be effective and, therefore, should be encouraged. Others will have evidence of effectiveness that is insufficient to make recommendations and are good candidates for further study. And some interventions will be found to be ineffective and, therefore, should be discouraged. For example, in the chapter Vaccine-Preventable Diseases: Improving Vaccination Coverage in Children, Adolescents, and Adults, 10 of the 17 interventions assessed were shown to be effective, and 7 had insufficient evidence of effectiveness. The *Guide* will provide policy makers and practitioners with an evidence-based tool to assist in balancing decisions between science and politics across a range of problems and potential solutions.

Identifying Gaps in Intervention Research

In each chapter of the *Guide*, the Task Force will identify important research gaps in the literature. Specifically, the *Guide* will highlight gaps in our knowledge regarding the effectiveness of interventions that are promising but untested or are in widespread use for reasons of tradition or political expediency. For interventions with sufficient or strong evidence of effectiveness, research gaps generally consisted of questions regarding applicability in other populations, economic consequences, implementation barriers, and opportunities to improve technical efficiency. For interventions with insufficient evidence of effectiveness, research gaps consisted of questions regarding effectiveness, other effects, and applicability in other populations.

Therefore, the Task Force offers its list of research gaps as a starting point for deliberation among potential participants in a coordinated national effort to close those research gaps. The Task Force also believes that success in this collective enterprise would lead to a more constructive integration of research agendas among contributing institutions, minimize uncoordinated or duplicated effort, and increase coverage of the entire spectrum of research gaps, resulting in answers to questions of high importance within a reasonable time frame (e.g., 5 to 10 years).

The Task Force believes that funding and research institutions should consider giving priority to closing important research gaps identified in the *Guide*. Institutional collaborators in the *Guide*'s development have already begun to express interest in closing research gaps in a variety of ways. For example, in formulating requests for proposals, federal agencies, philanthropic foundations, and other organizations that use grants and contracts to support population-based public health practice and research, can give high priority to particular elements of the research gaps. Individual researchers can use the *Guide* as a resource for questions to pursue through investigator-initiated research proposals. And graduate students and their thesis advisors can seek from the *Guide* suitable questions for doctoral and other graduate dissertations.

Integrating Related Public Health Initiatives

The *Guide* will create new opportunities for developing and sustaining relationships among public health initiatives. Moreover, the *Guide* will complement but not duplicate other advisory public health documents. The broad scope of the *Guide*, from the interventions aimed at changing various risk behaviors (e.g., tobacco use, physical inactivity, and seatbelt use) to interventions aimed at reducing diseases, injuries, and impairments (e.g., motor-vehicle injuries, vaccine-preventable diseases, dental caries, and diabetes) will encourage decision makers and advocates for categorical prevention programs to look across the spectrum of public health initiatives in search of new alliances and new opportunities for synergy and efficiency among categorical programs. As an example of how the *Guide* relates to, but is distinguishable from, other prominent public health documents, we compare the *Guide*'s evidence-based chapter on Vaccine-Preventable Diseases: Improving Vaccination Coverage in Children, Adolescents, and Adults with three other sources of related information:

Complementing the *Guide to Clinical Preventive Services*: This *Guide to Community Preventive Services* describes the effectiveness of 17 interventions used to increase vaccination coverage in a community and makes recommendations regarding each based on the supporting body of evidence. Each evaluated intervention is *strongly recommended* on the basis of *strong* supporting evidence of effectiveness, *recommended* on the basis of *sufficient* supporting evidence of effectiveness, *strongly not recommended* on the basis of *strong* supporting evidence of ineffectiveness, or *not recommended* on the basis of *sufficient* supporting evidence of ineffectiveness. Evaluated interventions regarding which there is *insufficient evidence* of effectiveness are ineligible to receive a Task Force recommendation. Evidence of effectiveness is considered insufficient to support a definitive recommendation for a variety of reasons (e.g., too few studies have been done, completed studies are of poor quality or have yielded inconsistent results). Presumably, decision makers will give higher priority to a population-based intervention that is strongly recommended rather than one having a weaker recommendation. In contrast, the *Guide to Clinical Preventive Services* evaluates the effectiveness of vaccines in preventing disease and recommends specific immunizations for healthy individuals.

Implementing the concept of essential public health services: The *Guide* provides useful information to help public and private organizations implement many of the essential public health services. In 1994, the Public Health Functions Steering Committee identified 10 essential public health services that are required to carry out the 3 core functions of public health—assessment, policy development, and assurance—described by the Institute of Medicine.[8,10,12] These essential services have been used to guide statements of organizational competency,[13] analyze expenditures,[14] and define program responsibilities.[15] However, they are not specific enough to direct choices among competing options in a specific programmatic or prevention area. The *Guide*'s focus is on encouraging effective interventions, abandoning ineffective interventions, and evaluating promising but unproven interventions, and is directly relevant to 7 of the 10 essential services.

Achieving *Healthy People 2010* Objectives: *Healthy People* is the national prevention initiative that identifies opportunities to improve the health of all U.S. citizens.[6,7] Each decade, beginning in 1979, the U.S. Department of Health and Human Services (DHHS) has coordinated the development of national public health goals and objectives. A draft for review and comment of *Healthy People 2010* was released in September 1998, and the document is being revised. Measurable objectives are being defined in many focus areas and selected populations. January 2000 is the anticipated publication date for *Healthy People 2010*. The national *Healthy People 2010* objectives will have statewide and community-specific counterparts, thus focusing on small area variation and raising the need to understand differences in implementation of public health practices in different geographic areas. The *Guide* provides a means, by offering a menu of interventions from which to construct an overall strategy, to achieve the objectives outlined in *Healthy People 2010*. For example, in one focus area of *Healthy People 2010*—Immunization and Infectious Diseases, one objective aims to achieve vaccination coverage of at least 90% among children aged 19 to 35 months. The *Guide*'s chapter on Vaccine-Preventable Diseases: Improving Vaccination Coverage in Children, Adolescents, and Adults evaluated 17 interventions (7 strongly recommended, 3 recommended, and 7 having insufficient evidence), each aimed at achieving and maintaining vaccination coverage.

Addressing Environmental and Ecosystem Challenges

Because environments (biological, physical, and sociocultural) and ecosystems (interdependent lives and living conditions) surround health problems and their determinants, this section of the *Guide* will draw attention to the potential advantages of comprehensive approaches to solving multiple health problems at the same time, in context. In addition to addressing important physical and biological hazards elsewhere in the *Guide*, one chapter will highlight the growing recognition of sociocultural determinants of community health and individual quality of life. Social and cultural determinants of community health include social class, race,

ethnicity, politics, economics, religion, language, beliefs, values, and norms of behavior.[16,17] The changing demographic profile of many communities in the United States and other industrialized countries, such as the increasing proportions of residents who are elderly, poor, and members of racial and ethnic minority groups, has increased the demand for information regarding the relationship of elements of the social and cultural environment to population health and quality of life.[18]

Methods and Standards Used in Developing the *Guide*

Since the first edition of the *Guide to Clinical Preventive Services* was published in 1989 addressing individual clinical services, many professional groups including public health practitioners, managed care executives, health care policy makers, and payers have expressed a need for evidence-based recommendations to help them select and implement population-based preventive health services in varying topics of interest.[12,19]

Guide chapter development includes the following substantive tasks:[20]

- developing a conceptual approach to the scope and organization of a chapter;
- selecting interventions to be evaluated;
- searching for and retrieving evidence of effectiveness;
- assessing the quality and summarizing the body of evidence of effectiveness;
- translating the body of evidence of effectiveness into recommendations;
- considering information regarding other issues (e.g., economics, feasibility, and unintended adverse effects); and
- identifying and summarizing research gaps.

Supporting the Work of the Task Force

The Task Force, with support from DHHS staff, determined the scope, methods, and content of the *Guide*'s recommendations and its dissemination plan. The members live and work in many geographic regions of the United States and practice a variety of health specialties—infectious disease, chronic disease, environmental health, maternal and child health, mental health, substance abuse, primary health care, public health, and others. Similarly, Task Force members bring a variety of institutional perspectives to the project—managed care, state and local health departments, and academia. Additional professionals involved in many different scientific disciplines—behavioral, social, and communication sciences; decision, economic evaluation, and policy analysis; information systems; and management—also assist in the *Guide* development process.

The Task Force also receives technical and operational advice from consultants with previous experience on other guideline development efforts and from liaison representatives of federal agencies and professional groups involved in public health.[2] All DHHS agencies with major health responsibilities and the U.S. Departments of Defense, Transportation, and Veterans Affairs provide advice to the Task Force.

Finally, the day-to-day work of the Task Force is coordinated by an interdisciplinary full-time staff of scientists and administrators made available by the Centers for Disease Control and Prevention. The Substance Abuse and Mental Health Services Administration (SAMHSA) also made available the coordinating scientist for chapters on *Alcohol* and *Other Addictive Drugs*. Scientific disciplines represented among the staff include behavioral science, economics, epidemiology, internal medicine, pediatrics, preventive medicine, sociology, and veterinary medicine. For each chapter of the *Guide*, a staff scientist coordinates a multidisciplinary team, with input from subject-matter consultants. The team conducts systematic literature reviews, drafts recommendations, and then presents recommendation options to the Task Force at regular meetings which occur three to four times per year and are open to the public.

Defining the Scope and Content of the *Guide*

Details of the process by which the Task Force decided what topics should be included in the *Guide* are described elsewhere.[5] Briefly, however, the Task Force developed a comprehensive list of topics and used an iterative process to narrow the list down to what was feasible, given personnel and time constraints. The starting list of topics was compiled by expanding the contents for *Healthy People 2000*[5] and giving prominence to the nine risk behaviors (actual causes of death) that together accounted for 50% of all U.S. deaths in 1990 among people aged <65 years.[21]

Synthesizing Evidence from Effectiveness Evaluation Studies

The objectives of *Guide* development methods can be summarized as (1) reducing bias and thereby ensuring validity; (2) increasing reliability; and (3) maintaining objectivity in evaluating the literature and constructing prudent recommendations that are supported by the literature.[20] The Task Force observes explicit rules of procedure to increase objectivity among participants, reduce bias in the bodies of evidence used to support recommendations, and increase the reliability of systematic reviews and the translation process within and across evidence-based chapters. Threats to the validity and reliability of systematic reviews of the literature were minimized by (1) using explicit logic and analytic

frameworks to facilitate interaction among participants with diverse backgrounds; (2) choosing eligible interventions and desirable outcomes to be assessed on the basis of explicit criteria of relative importance; (3) conducting comprehensive literature searches based on analytic frameworks; and (4) using duplicate independent reviews of each study and a standard data abstraction form to assess study content and quality.[22]

Threats to the validity, reliability, and objectivity of the process for translating evidence of effectiveness into recommendations were minimized by (1) using large multidisciplinary teams of subject matter experts and methodologists to develop chapters; and (2) reconciling divergent views among participants by discussion and consensus-building within chapter development teams and among members of the Task Force. Discussion and consensus-building were informal and did not involve a professional facilitator.

Synthesizing Evidence from Economic Evaluation Studies

The absence of credible information from economic evaluation studies of high quality is an important barrier to applying evidence of the effectiveness of interventions in practice. The *Guide* will include the best available information on the cost and economic consequences of interventions that the Task Force has recommended. The Task Force has developed standardized methods and instruments for the systematic review of economic evaluations across an array of population-based health promotion and disease prevention interventions. The methods and instruments are described in detail elsewhere.[23] In brief, however, the following steps are taken in conducting systematic reviews of economic evaluations:

- systematic searches are conducted;
- studies using economic analytic methods (e.g., cost analysis, cost-effectiveness, cost-benefit, or cost-utility analysis) are selected according to explicit inclusion criteria;
- economic data are abstracted and adjusted using a standardized abstraction form; and,
- adjusted costs, cost-savings, cost-effectiveness, or cost-utility ratios are listed in economic evaluation summary tables.

Because of the procedural difficulty involved and the inconsistent availability of economic studies across topics, the Task Force has decided not to use the results of economic evaluations to alter the status of a recommendation from *recommended* to *highly recommended* or vice versa. Based on the available economic evidence, however, a decision maker might be better able to choose, from among equally effective interventions, those that are most likely to produce the maximum health and economic benefits per dollar of resource used.

Considering Other Types of Evidence from Other Sources

In formulating its recommendations, the Task Force relies heavily on evidence from quantitative research methods. And the Task Force recognizes that other types and sources of evidence for decision making regarding population-based health interventions are available and useful. For example, expert opinion, theory, and evidence derived from qualitative research methods often are used to justify practical decisions regarding which interventions should be implemented in a particular community and which results would constitute success. Moreover, evidence derived from mixed (i.e., quantitative and qualitative) research methods often is treated as quantitative and the contributions of qualitative research to the evidence inappropriately undervalued. Nevertheless, these other types and sources of evidence are not given independent weight in assessing the effectiveness of interventions.

In addition, the Task Force recognizes that decision making at the organizational or community levels can be modeled in a variety of ways to include important influences that were not explicitly given weight in formulating the *Guide*'s recommendations. Such influences might include community characteristics, social justice, cultural diversity and acceptance, resource availability and allocation, and community involvement and support. These issues are not further addressed in the *Guide*.

Applying Lessons Learned While Developing Early Chapters

At this stage of *Guide* development, some tentative conclusions can be drawn regarding lessons learned from the process, based on experience with the draft chapters on Vaccine-Preventable Diseases: Improving Vaccination Coverage in Children, Adolescents, and Adults, Preventing Motor Vehicle Occupant Injuries, Promoting Physical Activity, Promoting Oral Health, and Preventing Tobacco Use.

Working in chapter development teams: Chapter development teams are composed of three groups of participants—a coordination group of 4 to 10 members, a consultation group of 15 to 20 members, and an abstraction group of 4 to 10 members. Because the total number of participants in each team is large, the participatory process is slow and deliberate—in fact, slower than first anticipated. This experience has led to more intense efforts to streamline the operational tasks of chapter development.

Solving methodologic problems: At the start of this project, the Task Force established a work group on methodology to apply lessons learned from the experiences of others who have successfully developed evi-

dence-based clinical guidelines[11] and to meet the new challenges presented by a population-based *Guide*. Some of the methodologic challenges successfully addressed by the work group include assessing, describing, and combining findings related to (1) studies with designs other than randomized controlled trials; (2) interventions aimed at changing entire communities instead of (or in addition to) individuals; (3) complex multicomponent interventions as well as single-component interventions; and (4) different measures of outcome and effectiveness associated with the same or similar interventions being assessed. Although definitive solutions to these methodologic problems were seldom available, the Task Force has devised some practical solutions that will continue to serve a useful purpose as the remaining chapters of the *Guide* are developed.

Field-testing drafts of early chapters: Research on the development and dissemination of practice guides indicates that interaction between developers and potential users at early stages of product development is critical for long-term success.[24] In addition, the Task Force recognizes the utility of knowing the expressed information needs of the *Guide*'s target audiences. In the absence of a formal audience needs assessment, the Task Force intends to rely on field-testing of drafts of selected chapters of the *Guide* to validate presumptive indicators of need and to guide the further development of these and other chapters of the *Guide*. During 1998, several focus-group sessions were conducted among diverse, potential *Guide* audiences, using an early draft of the chapter on Vaccine-Preventable Diseases: Improving Vaccination Coverage in Children, Adolescents, and Adults. The focus-group participants confirmed that information of the type presented is urgently needed. In addition, the focus-group participants provided valuable feedback on refining the language, tone, and organization of the draft chapter to meet the information needs of different audiences. On the basis of those results, further focus-group testing will take place with near-complete drafts of future chapters.

Plans for Disseminating and Implementing Recommendations

The Task Force envisions disseminating the *Guide* using three related approaches—(1) publishing and distributing the primary document as a scientific report, along with a series of related interim products in a variety of formats; interim products might include each chapter-specific systematic review and recommendations as separate publications in print and on the Internet[3,4,25]; (2) facilitating the use of the *Guide* as a basis for developing other types of products (e.g., how-to manuals); and (3) social marketing of selected messages contained in the *Guide* to particular audiences on particular occasions by public and private partners.

The goal is to ensure that key audiences have received, accepted, and intend to use the *Guide*'s recommendations and supporting science. The public and private institutional partners involved in the *Guide* have accepted the complementary responsibility of disseminating its messages to audiences with which they have ongoing relationships. For example, academic institutions might see a unique role in reaching students, faculty, and service organizations with which they consult. Administrators of managed care plans might take the lead in disseminating the *Guide*'s main messages to enrolled populations, providers of clinical and population-based services, third-party payers, business coalitions, and investors. And public health and education agencies could focus on getting the messages of evidence-based public health practice to health departments and community-based organizations that serve communities with special needs, among other audiences.

To disseminate and implement the *Guide*, the Task Force will encourage other partners in the development process to use the document as a source for derivative products tailored to particular public health practice settings, target audiences, and communication goals, channels, and media (e.g., quick-reference cards or Internet sites). To illustrate, products derived from the *Guide to Clinical Preventive Services* included *Clinician's Handbook of Preventive Services* for health care systems and clinicians, *Personal Health Guide* and *Child Health Guide* for consumers, and Preventive Care Flow Sheets and Patient Reminder Postcards for clinic office staff. In 1994, these materials were disseminated during the course of an organized campaign titled, Put Prevention into Practice (PPIP), sponsored by the U.S. Public Health Service Office of Disease Prevention and Health Promotion.[26,27]

This *Guide*'s contents will be published in both hard copy and electronic formats, piecemeal and as a whole, and through a variety of media. Interim stand-alone products will be published in peer-reviewed journals and reprinted in monograph form before the publication of the consolidated *Guide* in 2001. For example, this edition of the Journal includes the first installments of a series of interim products—(1) this overview article; (2) the article on the scope and organization of the *Guide*[5]; (3) the article on the methods for developing the *Guide*[20]; (4) the article on the data collection instrument with its instructions for use in performing systematic literature reviews of effectiveness studies[22]; (5) the article on the methods and instrument used to review economic evaluation studies for the *Guide*[23]; and (6) the two articles addressing specific interventions to improve vaccination coverage in children, adolescents, and adults.[3,4] Other stand-alone interim products to be released before 2001 include one or more chapters

from the *Guide* (e.g., Preventing Motor Vehicle Occupant Injury and Preventing Tobacco Use).

The consolidated *Guide*, in hard copy and electronic formats, is expected to be published in 2001. In subsequent years, a large partnership of public agencies and private organizations is expected to participate in the wider dissemination of the *Guide* and of products derived from it. The Task Force also anticipates that existing chapters will be updated and additional topics addressed over time. Evidence of the successful implementation of the *Guide*'s content might include measurable increases in the use of effective interventions that are *strongly recommended* or *recommended*, measurable decreases in the use of ineffective interventions that are *not recommended*, and measurable increases in efforts to evaluate promising interventions of unknown effectiveness.

Summary

When the first volume of the *Guide* is published in 2001, it will represent the first installment of a significant national effort in encouraging evidence-based public health practice in communities, including populations of beneficiaries enrolled in managed care plans. The *Guide* will make recommendations regarding public health interventions that (1) change risk behaviors; (2) reduce diseases, injuries, and impairments that account for a large portion of the burden of illness, disability, and premature death in the United States; and (3) address environmental and ecosystem challenges, with particular emphasis on sociocultural influences on community health and quality of life.

The Task Force on Community Preventive Services, the 15-member, nonfederal, independent panel of experts overseeing the development of the *Guide*, invites its diverse audience to keep abreast of information regarding the *Guide* during the remainder of its development and pilot-testing phases. We invite readers of this article to scrutinize the work in progress, to share ideas with the contributors, and to provide input in areas of expertise or interest. When the *Guide* is complete, we ask you to consider critically the value of its contents, especially the portions that are relevant to your work.

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