
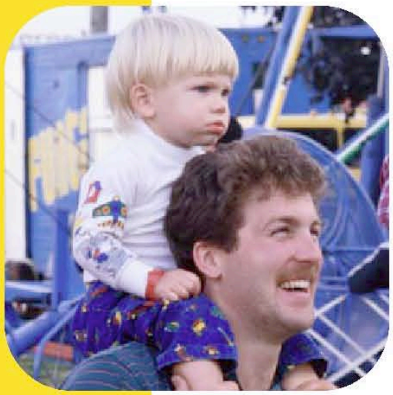
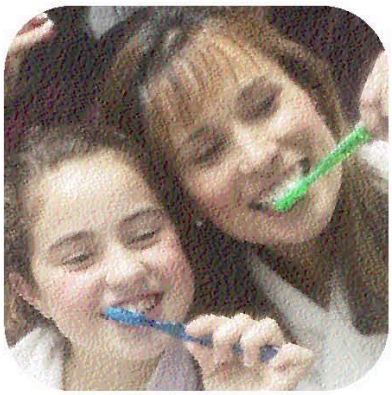

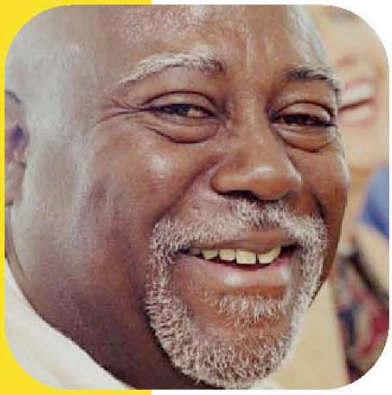
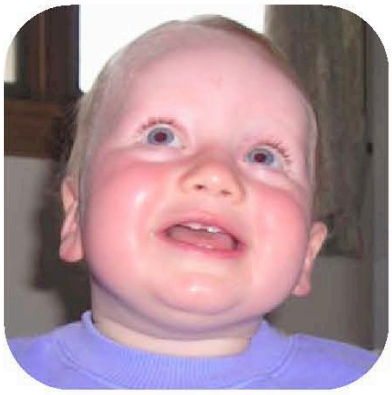


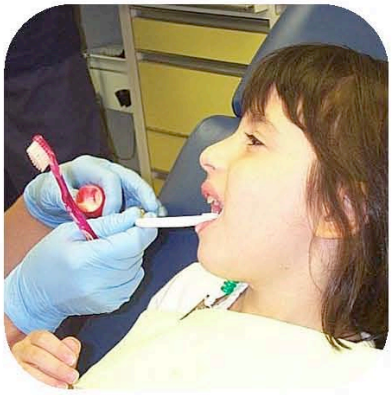

A Guide for Developing and Enhancing Community Oral Health Programs

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A Guide for Developing and Enhancing Community Oral Health Programs (the *Guide*) was produced by the American Association for Community Dental Programs (AACDP), a national organization focused on the needs and interests of public oral health programs in communities across the nation. Through its Web site, discussion list, and publications, AACDP offers information, guidance, and technical assistance designed to promote community oral health programs. AACDP also promotes communication between stakeholders interested in community oral health activities and sponsors an annual conference that focuses on issues of interest to local oral health program managers and staff. The conference is held in conjunction with the National Oral Health Conference, thereby creating a synergy of opportunities for formal continuing education and networking with other professionals who have expertise in community public oral health program operations, research, policy, and funding.

Other AACDP publications include the following:

- *Seal America: The Prevention Invention*. By developing this dental sealant manual, AACDP contributed to successful efforts to retain major funding for state and local oral health programs through the Maternal and Child Health Block grant.
- *Model Framework for Community Oral Health Programs: Based on the Ten Essential Public Health* Services (http://www.aacdp.com/Docs/Framework.pdf). This document integrates oral health into each of the 10 essential public health services accepted by the National Association of City and County Health Officers. The document provides a conceptual framework and theoretical support for the integration of oral health and public health.

For information on how to join AACDP to work with others in support of community oral health programs, visit http://www.aacdp.com.

The *Guide* is the result of the commitment and efforts of a broad spectrum of oral health and public health experts including state, county, and city oral health directors and consultants, a representative of the Indian Health Service, and the chief dental officer of a multi-site rural community health center system. AACDP members and colleagues who led development of the *Guide* and contributed significantly to writing and reviewing the document include

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Table of Contents

Executive Summary

Since good oral health is essential to good overall health as well as to the prevention of oral disease and unnecessary suffering, oral health is a major concern of local public health agencies (LPHAs). *A Guide for Developing and Enhancing Community Oral Health Programs* (the *Guide*) is designed to help LPHAs develop, integrate, expand, or enhance community oral health programs.

LPHAs are well positioned to work with other community stakeholders to develop, integrate, expand, or enhance community oral health programs. Such stakeholders may include

- State and local government officials
- State public health officials
- Local public health officials and administrators
- Health professionals, including oral health professionals
- Community oral health coalitions and organizations
- Local nonprofit health agencies, organizations, and institutions
- Others involved with advocating for, planning, and implementing community oral health programs

The *Guide* is a companion document to *A Model Framework for Community Oral Health Programs: Based on the Ten Essential Public Health Services* (http://www.aacdp.com/Docs/Framework.pdf) *(*the *Framework)*. The *Framework* is a policy document describing the integration of oral health into the 10 essential public health services that officially guide the membership of the National Association of County and City Health Officers (NACCHO). The *Framework* can be used to help ensure that oral health is included in LPHAs' overall plan. The *Guide* walks readers through the steps needed to develop, integrate, expand, or enhance community oral health programs.

Although the *Guide* is organized by steps, the process of program development, integration, expansion, or enhancement is not necessarily linear. In some cases, certain steps may have already been completed—for example, mobilizing community support or assessing oral health needs and existing resources. Conducting several steps simultaneously is an option. It is important to build on and move ahead with what has already been accomplished.

The steps detailed in the *Guide* include the following:

1. Mobilize community support
2. Assess needs and existing resources
3. Plan the program
4. Implement the program
5. Evaluate the program
6. Participate in policy development and research

Throughout the *Guide,* resources related to each step are identified and described. Web site addresses are provided when available.

Important to the success of community oral health program development, integration, expansion, or enhancement is the identification and mobilization of program resources. These resources may include existing services and equipment as well as financial resources. While the *Guide* contains a section that specifically addresses funding, it is important to view each step described in the *Guide* as integral to the funding process. For example, through the mobilization of community support, communities are creating an oral health constituency that can influence the budgeting process and the allocation of funds to support oral health. The development of a program plan driven by an assessment of oral health needs and existing resources and that builds in program evaluation is attractive to funders, who are concerned with accountability. Therefore, each step described in the *Guide* is intended to help readers identify and mobilize resources.

Step 1. Mobilize Community Support

Mobilizing support for good oral health within the community is essential to ultimate success in improving oral health outcomes. It is often useful to develop a community oral health coalition or to add oral health to the agenda of an existing coalition to obtain this support. To find partners and develop oral health "champions," it is helpful to look to groups currently concerned with oral health and whose constituents may have extensive oral health needs. These groups could include Head Start programs, child care programs, schools, community action agencies, cultural and linguistic minority programs, and faith-based organizations, among others.

Step 2. Assess Needs and Resources

To determine how to improve oral health within a community, it is important to first obtain a thorough, evidence-based understanding of the community and its current health and oral health needs and existing resources. Certain markers or indicators of community oral health status and need (e.g., rates of tooth decay, untreated tooth decay, oral cancer, oral injury, periodontal disease, number of residents without adequate dental insurance) may be used to help determine the community's oral health status.

Steps in the assessment process include organizing the assessment of needs and resources, collecting and analyzing data, describing and prioritizing findings, and developing recommendations based on findings. Before initiating the assessment process, it is important to develop the questions that the process will answer. Examples of such questions could include (1) who in the community does not have access to oral health care? and (2) who is available to provide and support oral health care?

To answer assessment questions, it is necessary to understand the community, determine unmet oral health needs, and identify existing and potential oral health resources. Numerous resources are available that can provide useful data. Both primary and secondary data can be analyzed to reveal trends, identify gaps, and describe associations between factors that impact oral health status.

Step 3. Determine Priorities and Plan the Program

Program priorities must be determined to direct resources to areas of most need. Once priorities are established, the next step is to determine program outcomes—that is, what should happen as a result of developing, integrating, expanding, or enhancing community oral health programs. LPHAs should begin by identifying activities that will move the community toward achieving desired outcomes. At this point, it is possible to identify the resources needed to support planned activities. It is essential that cultural competency be woven into program design and planning, given the increasing diversity of the U.S. population and documented evidence of significant oral health disparities for certain population groups.

It is not always necessary to start from scratch with program planning, as it may be possible to tailor or build on others' evidence-based best-practices experiences.

Step 4. Implement the Program

After assessing needs and resources, establishing priorities, developing a program plan, mobilizing resources, and reviewing best practices, it is time to move to program implementation. Programs comprise specific components or activities, each linked to a particular outcome. It is often helpful to identify the key activities of each component, determine who will take the lead on activities and the resources needed, and set due dates. Keeping new program efforts small scale can allow for working out problems and making changes early on without using resources unnecessarily. Working with a broadly representative group of stakeholders can increase the likelihood of success, as such stakeholders can bring a variety of important insights and resources to the program.

Step 5. Evaluate the Program

Program evaluation is essential. An effective evaluation accomplishes several important tasks, including

- Helping staff understand what is working, what is not working, and why
- Providing managers with information that enables them to make program adjustments
- Permitting periodic evaluations of program activities and progress toward achieving program outcomes
- Helping to document efforts and ensure support from policy and funding entities

Components of the evaluation process include determining evaluation questions and establishing evaluation measures.

Step 6. Participate in Policy Development and Research

Community oral health stakeholders sometimes view policy, laws, regulations, ordinances, rules, and research as being outside the scope of their responsibility or expertise. But, in fact, these stakeholders can play a critical role in policy and research arenas.

The policy process includes several stages: articulating the issue that the proposed policy will address, exploring scientific data relevant to the policy, developing support for the policy, placing the policy on the agenda, formulating the policy, and, finally, implementing and evaluating the policy. Oral health stakeholders can provide expert guidance about the policy process, offering not only scientific expertise but also hands-on community experience.

Community oral health stakeholders are responsible for developing new information and refining existing information. Community oral health professionals are in a unique position to bridge the gap between the development and application of information, and, therefore, they have a special role to play in research. Research activities can generate many benefits for local oral health programs by increasing the visibility of the program and of oral health in general, encouraging collaboration, supporting state and local oral health and public health organizations, and increasing or sustaining support from community organizations, funding sources, governing bodies, and decision-makers.

Conclusion

Good oral health is not only essential to good overall health and freedom from the pain and suffering associated with oral health problems; it also affects self-esteem, quality of life, and performance at school and at work. Therefore, the public health community must view oral health as essential. We hope that the *Guide* will help LPHAs engaged in efforts to improve community oral health services in the development, integration, expansion, and enhancement of oral health programs.

Overview of the *Guide*

Introduction

A Guide for Developing and Enhancing Community Oral Health Programs, which was developed by oral health and public health experts, is designed to help local public health agencies (LPHAs) develop new community oral health programs, integrate new or enhanced oral health programs into existing public health programs, or expand or enhance existing oral health programs. LPHAs are encouraged to work with public- and private-sector partners and to use local resources in the process of developing, integrating, expanding, or enhancing community oral health programs.

The National Association of County and City Health Officials (NACCHO) has estimated that only approximately 658 of the nearly 3,000 LPHAs operating in the United States include oral health programs.[5] Since LPHAs are ideally positioned to promote the availability, accessibility, and quality of oral health services, we hope that the agencies without oral health programs will consider developing such programs, while those with programs will expand or enhance them or integrate them into existing public health programs.

Developing, integrating, expanding, or enhancing community oral health programs requires the involvement of an array of community stakeholders. Such stakeholders may include

- State public health officials
- State, county, and city government officials
- Local public health officials and administrators
- Health professionals, including oral health professionals
- Community oral health coalitions and organizations
- Local nonprofit health agencies, organizations, and institutions
- Others involved with advocating for, planning, and implementing community oral health programs

Companions in Improving Community Oral Health

- The Framework, a policy document for local and state health directors describing the integration of oral health into the 10 essential public health services.
- The Guide, a "how-to" information and resource guide for developing, enhancing, or expanding community oral health. programs.

The *Guide* is a companion document to *A Model Framework for Community Oral Health Programs: Based on the Ten Essential Public Health Services* (http://www.aacdp.com/Docs/Framework.pdf) . The *Framework* is a policy document describing the integration of oral health into the 10 essential public health services that officially guide the membership of NACCHO. The *Framework* is a powerful tool that can be used in gaining support for oral health programming in LPHAs. The *Framework* is used to help ensure that oral health is integrated into LPHAs and services. The *Guide* walks readers through the steps needed to develop, integrate, expand, or enhance community oral health programs.

Why Develop, Expand, Integrate, or Enhance Community Oral Health Programs?

In May 2000, Surgeon General David Satcher released *Oral Health in America: A Report of the Surgeon General,*[3] the first Surgeon General's report on oral health. The report identifies the need for a national effort to improve oral health among all Americans and stresses the relationship between oral health and general health. The overarching message of *Oral Health in America* is that oral health means much more than healthy teeth and that it is integral to general health and well-being. Therefore, oral health must be included in the provision of health care and in the design of community programs. The report calls for an increase in quality and years of life and for the elimination of health disparities through a national partnership that would provide opportunities for individuals, communities, and the health professions to work together to maintain and improve the nation's oral health.

The Surgeon General's report describes a "silent epidemic" of oral diseases affecting the health of Americans. For example,

- 78% of 17-year-olds have had tooth decay, with an average of 7 affected tooth surfaces.
- 98% of 40–44-year-olds have had tooth decay, with an average of 45 affected tooth surfaces.
- Three out of every 10 Americans over age 65 have no teeth at all.

Children and Dental Disease

- Dental caries represents the most common chronic disease among children.
- Dental caries is five times more common in children than asthma.
- Children loose an estimated 51 million school hours per year because of dental-related illness.

Those who suffer the worst oral health include Americans with low incomes—especially children and the elderly, members of racial and ethnic minority groups, and individuals with disabilities and complex health conditions. The 108 million Americans who lack dental insurance also experience particularly poor oral health. This group includes uninsured children, who are 2.5 times more likely than insured children to suffer from untreated oral disease.

In 2003, the Surgeon General's *National Call to Action to Promote Oral Health*[6] was released. The *National Call to Action* further describes the burden of oral diseases and disorders and puts forth a series of action steps to promote oral health. These steps stress the need to change perceptions of oral health; overcome barriers to oral health by replicating effective programs and proven efforts; build the science base to better understand diseases and accelerate the transfer of science into public health and private practice; increase the capacity, diversity, and flexibility of the oral health work force; and increase collaboration between the private and public sectors to effect disease prevention and oral health promotion.

Developing, Integrating, Expanding, or Enhancing Community Oral Health Programs, Step by Step

The *Guide* walks readers through the steps needed to develop, integrate, expand, or enhance community oral health programs. These steps are as follows:

Step 1. Mobilize Community Support. Partners and "champions" are important to the success of newly developed, integrated, enhanced, or expanded community oral health programs. This section describes how to identify and mobilize these partners and champions.

Step 2. Assess Needs and Resources. To determine how to improve oral health within a community, it is important to obtain a thorough, evidence-based understanding of the community and its current health and oral health needs and existing resources. This section describes how to assess needs and resources.

Step 3. Determine Priorities and Plan the Program. This section reviews how to determine priorities and plan program development, integration, enhancement, or expansion using findings from the assessment of needs and resources.

Step 4. Implement the Program. Programs comprise specific components or activities, each linked to a specific outcome. This section focuses on implementing these components or activities.

Step 5. Evaluate the Program. An effective evaluation accomplishes several important tasks, including measuring the scope and level of a program's success. This section explores the evaluation process.

Step 6. Participate in Policy Development and Research. Oral health stakeholders can provide expert guidance in the areas of policy development and research. This section describes how these stakeholders can play a role in policy and research activities.

Throughout the *Guide,* resources related to each step of the process of developing, integrating, expanding, or enhancing community oral health programs are identified and described. Internet links to these resources organized by steps in the planning process appear in Appendix A, with resources organized by topic area appearing in Appendix B. Appendix C contains a table describing effective community and individual measures to prevent tooth decay. Appendix D contains a table showing a comparison of five effective community tooth decay programs. Appendix E contains a crosswalk between 10 essential public health services, essential public health services to promote oral health in the United States, and dental public health competencies.

Although the *Guide* is organized by steps, the process of program development, integration, expansion, or enhancement is not necessarily linear. In some cases, certain steps may have already been completed—for example, mobilizing community support or assessing oral health needs and existing resources. Conducting several steps simultaneously is also an option. It is important to build on and move ahead with what has already been accomplished.

Key to the success of community oral health program development, integration, expansion, or enhancement is the identification and mobilization of financial resources. While the *Guide* contains a section that specifically addresses funding, it is important to view each step described in the *Guide* as integral to the funding process. For example, through the mobilization of

community support, communities create oral health constituencies that can significantly influence the budgeting process and the allocation of funds to support oral health. A solid program plan that builds in program evaluation and that is driven by an assessment of needs and existing resources appeals to funders, who are concerned with accountability. Therefore, each step in the *Guide* is intended to help secure and sustain financial support.

Step 1. Mobilize Community Support

To initiate assessment and program planning processes and see them through to implementation and evaluation, the involvement and support of an array of public- and private-sector stakeholders is essential.

A. Getting Started

Developing and maintaining a community oral health coalition (a group of individuals or representatives of organizations working to influence outcomes related to oral health) focused on improving oral health services in the community can help mobilize support. Coalitions are useful for accomplishing a broad range of goals. In some cases, a coalition may already be in place whose agenda can be modified to include improved oral health in the community. For example, there may be a community coalition or organization focused on improving access to health care, decreasing the incidence of chronic disease, or expanding the availability of services. Adding oral health to an existing, complementary agenda and organizing a subcommittee within the coalition to focus on oral health can not only broaden the constituency base for oral health but also widen the audience for policy and program discussions that can lead to new alliances, opportunities, and critical support from outside the coalition.

This community oral health coalition can play an important role in each of the subsequent steps described in the *Guide*—from assessing needs and resources to implementing programs, formulating policy, and conducting research.

B. Finding Partners and Champions

When adding members to a current community oral health coalition or when initiating a new coalition, it is important to look for partners who are or can become champions for oral health. It is often useful to start by identifying groups concerned about oral health issues and whose constituents may have significant oral health needs. Examples of such groups include the following:

- Community action agencies
- Local health professionals (e.g., family physicians, pediatricians, community/migrant/tribal health center workers, hospital emergency room staff)
- Agencies that work with special population groups (e.g., children, individuals who are homeless, individuals with disabilities, immigrants)
- Local elected officials (e.g., state legislators, county or city government, city council, board of supervisors)
- Head Start and child care programs
- School nurses
- Parent teachers associations
- Professional groups (e.g., state American Academy of Pediatrics [AAP] chapter, public health associations, dental associations, dental hygiene associations, primary care associations, school nurse associations)

- Professional schools (e.g., dental schools, dental hygiene schools, nursing schools, schools of public health)
- Area Health Education Centers (AHECs)
- Faith communities

Coalition development requires careful planning and thoughtful implementation. Two useful publications that provide valuable information about coalition development are

- *Developing Effective Coalitions: An Eight Step Guide* (http://preventioninstitute.org/eightstep.html), developed by The Prevention Institute. This guide focuses on the many aspects of coalition development, from identifying partners to establishing and maintaining a focus that changes the conditions that impact community health. The Prevention Institute builds on the successes of a variety of fields and applies them to new challenges in fields such as oral health.
- *Community Roots for Oral Health: Guidelines for Successful Coalitions* (http://www.doh.wa.gov/cfh/oral_health/community_roots.htm), developed by the Washington Department of Health. This manual focuses on creating oral health coalitions.

Often, some particularly compelling data or anecdotal information about oral health issues may be available that will capture the interest of potential coalition members and help initiate activity. A quick survey of oral disease in children attending Head Start programs or interviews with school nurses working in a high-poverty area of the community can provide information that will create a sense of urgency.

Existing interagency councils or coalitions are often aware of oral health access issues and may willingly support action when oral health partners and champions emerge.

Briefly, the steps in coalition development include the following:

- Discuss the need for and potential goals and accomplishments of a coalition
- Recruit committed, energetic, influential experts
- Determine goals, objectives, and proposed activities
- Identify individuals or representatives of organizations to take responsibility for completing activities
- Convene coalition members
- Determine coalition needs and resources
- Determine coalition structure
- Plan for ongoing vitality of the coalition
- Evaluate each coalition activity and the coalition's overall performance to guide future modifications and promote the coalition's success

When community support has been mobilized, it is time to move on to the next step—assessment of oral health needs and resources.

Step 2. Assess Needs and Resources

To determine how to improve oral health within a community, it is important to first obtain a thorough, evidence-based understanding of the community and its current health and oral health needs and existing resources. Therefore, a critical early step in developing, integrating, expanding, or enhancing an oral health program is the assessment of needs and resources.

The foundation of an oral health needs and resources assessment is an understanding of the oral health status of various segments of the population within the community. To prevent duplication of effort and to identify platforms upon which community oral health programs can be developed, integrated, expanded, or enhanced, it is also necessary to understand what oral health program resources are available as well as what general health programs are in place that might provide valuable linkages. It is important to think creatively and to identify potential resources at the national, state, and local levels that could be mobilized in support of oral health.

Under certain circumstances, it may be desirable to focus on a specific population group, such as children or the elderly, rather than on the entire population. Programs generally focus efforts on groups that are at particularly high risk for oral disease and on those that experience obstacles in gaining access to oral health care. These groups include children from families with low incomes, the uninsured or underinsured, individuals with special health care needs, the elderly, individuals who are homeless, individuals who are medically compromised, individuals with HIV/AIDS, nursing home residents, individuals who are incarcerated, minorities, migrants, and recent immigrants. Existing general health community assessments can be very useful in identifying high-risk populations and areas.

To assess oral health needs and resources in the community, certain markers or indicators of community oral health status and needs are used. These may include (1) tooth decay rates, (2) rates of untreated tooth decay, (3) oral cancer rates, (4) oral injury rates, (5) periodontal disease rates, (6) early childhood caries rates, (7) rates of families without adequate dental insurance, and (8) community water fluoridation status.

Activities in assessing a community's oral health needs and resources are as follows:

- Organize the assessment
- Conduct the assessment
- Organize and analyze data
- Describe findings
- Prioritize findings
- Develop recommendations based on the findings

A. Organize the Assessment

A needs and resources assessment should be thoughtfully planned. It should be guided by the questions that need to be answered to develop, integrate, expand, or enhance a community oral health programs. Such questions could include

- Who in the community does not have access to oral health care?
- Why don't they have access to oral health care?
- Who is available to provide oral health care?
- What are the oral health needs of different population groups (defined by age, race, ethnicity)?
- What are the oral health conditions (e.g., tooth decay, oral cancer) that affect overall oral health status?
- What is the effect of health insurance coverage on access to oral health care?
- What oral health education and promotion resources are available?
- What is the community's oral health care capacity?

To answer these and other questions and to implement effective programs, it is essential to (1) understand the community, (2) identify existing and potential oral health resources, (3) determine unmet oral health needs, and (4) identify barriers to oral health care.

The first step in organizing the assessment of needs and resources is to get help. The community oral health coalition described in *Step 1. Mobilize Community Support, A. Getting Started* may be able to provide assistance. The coalition's effectiveness can be enhanced through the involvement of other community stakeholders (e.g., Head Start staff, school nurses, hospital emergency room staff, interagency council members, or academic institution faculty) who can assist with such activities as identifying existing data, determining assessment questions, guiding the assessment, conducting data collection and analysis, and promoting effective utilization of the findings. Such stakeholders' early involvement in the assessment process will also encourage their later commitment to the implementation process.

The second step in organizing an assessment is determining what data will be needed to answer questions and how the data can be obtained. It is important to select only data relevant to the assessment questions.

Primary data are data collected directly; such data may be gathered from consumers and oral health professionals through methods such as focus groups, interviews, or surveys. Secondary data are collected from secondary sources (e.g., censuses, surveys).Data can be either qualitative (e.g., obtained from surveys, interviews, or focus groups) or quantitative (e.g., statistical data). A mix of primary, secondary, qualitative, and quantitative data provides the most comprehensive and robust description of oral health needs in the community.

The *Assessing Oral Health Needs: ASTDD Seven-Step Model* (http://www.astdd.org/index.php?template=seven_steps.html), developed by the Association of State and Territorial Dental Directors (ASTDD), provides useful guidance about conducting assessments. The model includes a comprehensive description of each step in the process along with an example of a completed assessment, worksheets, and an extensive bibliography. The model can be adapted to meet a variety of assessment needs.

Healthy People 2010 Oral Health Took Kit (http://www.nidcr.nih.gov/NewsAndReports/ReportsPresentation/HealthyPeople), available from the National Institute of Dental and Craniofacial Research (NIDCR), is another useful resource.

B. Conduct the Assessment

Since the focus of the assessment is the community's oral health needs and resources, it is important to obtain as complete and in-depth a picture of the community as possible.

1. Understand the Community

Understanding the community is instrumental in designing oral health programs that work for the community and resonate with its residents; this is central to good program planning and implementation.

It is particularly important to be aware of populations in the community at high risk for oral disease. Children; individuals with low incomes; and racial, cultural, and linguistic minorities often experience high rates of untreated oral disease and lack of access to oral health care. For example,

- The rate of untreated oral disease among children ages 2 to 5 from families with low incomes is almost five times that of children from families with higher incomes.[7]
- Dental sealants are more than four times more prevalent among white 14-year-olds than among their African-American counterparts.[8]
- The rate of untreated oral disease among American Indian and Alaska Native children ages 2 to 4 is six times that of white children in this age group.[3]
- Oral cancer mortality is twice as high among African-American males as among white males.[9]
- The rate of unmet oral health needs is four times as high among individuals without health insurance as among those with private insurance.[10]

2. Gather Data About Needs

Data about oral health needs are available from a variety of sources. Other data sources include the following:

Behavioral Risk Factor Surveillance System (BRFSS). BRFSS (http://www.cdc.gov/brfss/index.htm) provides state-specific information on personal health behaviors related to several leading causes of death. One module is devoted to oral health. A BRFSS telephone questionnaire includes a core set of questions used by all states and an additional set sponsored by each state that may be derived from optional modules developed by CDC or other appropriate sources.

Child Trends DataBank. The DataBank (http://childtrendsdatabank.org/indicators/82UnmetDentalNeeds.cfm) provides information about trends in unmet oral health needs along with information about variations in unmet needs by race, ethnicity, health insurance coverage, income, and age.

Dental, Oral, and Craniofacial Data Resource Center (DRC). DRC (http://drc.nidcr.nih.gov) serves as a resource on dental, oral, and craniofacial data for the research community, clinical practitioners, public health planners, policymakers, advocates, and the general public. The center is sponsored by NIDCR and CDC's division of oral health.

National Surveillance Data. National surveillance for dental caries, dental sealants, tooth retention, edentulism, and enamel fluorosis: United States, 1988–1994 and 1999–2002 is available in *Morbidity and Mortality Weekly Report Surveillance Summaries*, August 26, 2005 54(3):1–44 (http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5403a1.htm#top). These data are stratified by age and racial/ethnic groupings and may provide insight into the oral health status and services obtained by similar population groups in a given community.

National Oral Health Surveillance System (NOHSS). This system (http://www.cdc.gov/nohss) is designed to help public health programs monitor the burden of oral disease, use of the oral health care delivery system, and status of community water fluoridation on both a national and a state level. NOHSS includes indicators of oral health, information on state oral health programs, and links to other important sources of oral health information. The project is a collaborative effort between the Centers for Disease Control and Prevention's (CDC's) Division of Oral Health and ASTDD.

Oral Health Data Systems, Oral Health Maps. This system (http://apps.nccd.cdc.gov/gisdoh) is an interactive mapping application that presents indicators of oral health and preventive interventions for oral health for states and some counties. State/county maps showing indicators for water fluoridation, state-level indicators for untreated tooth decay, indicators for tooth decay experience, and indicators for dental sealants are available. This project is a collaborative effort among CDC, ASTDD, and participating states.

Health Policies. Current policies, laws, regulations, and ordinances include Medicaid and State Children's Health Insurance Program (SCHIP) policies, as well as regulations that affect school-based and school-linked programs. Learning how state and county/city legislative bodies view health and oral health and about legislative committees focused on these issues provides an opportunity to understand their perceptions of oral health needs. State oral health programs, dental societies, or community oral health coalition members can help access this information.

Dental Sealants. A resource for information about dental sealants is *Seal America: The Prevention Invention* (http://www.mchoralhealth.org/seal).

Primary Data. Primary data can be collected through key informant interviews, focus groups, surveys, or community forums. Local data are often the most compelling to local policymakers and funding sources. Dental schools, state public health agencies, LPHAs, public health associations, primary care associations, or others may be able to assist with the design of data collection instruments and the collection of data. The Basic Screening Survey Planning Guide, a step-by-step guide for conducting the Basic Screening Survey, is available at http://www.astdd.org/index.php?template=surveybss.html.

3. Identify Existing and Potential Resources

An overview of existing and potential oral health resources appears below.

Community Resources

Public health agencies may have funding, expertise, staff, facilities, support, equipment, and linkages with other organizations that can be useful. Questions to ask potential resources are as follows:

- Is oral health an agency priority?
- What mechanisms are in place for communication between oral health program staff and agency leaders?
- Do oral health program staff play a role in agencywide planning and decision-making?
- Does the oral health program provide advice, consultation, and guidance about oral health to other departments within the agency?
- What oral health services are provided, and what oral health activities are conducted?

Community/Migrant/Tribal Health Centers. Many community health centers or other federally qualified health centers provide oral health care. A Web site useful for locating such centers is http://ask.hrsa.gov/pc.

Indian Health Service. Information about tribal oral health may be obtained from Indian Health Service (IHS) area offices. Contact information is available at http://www.ihs.gov/facilitiesservices/areaoffices/areaoffices_index.asp.

School-Based Health Centers. Some school-based health centers offer oral health services, and even those without such services are likely to have data about students' oral health needs. The National Assembly of School-Based Health Care (http://www.nasbhc.org) conducts an annual census of school-based health centers.

Schools. Most states have mandated school health programs that include a focus on oral and nutritional health. Many school administrators understand the impact of poor oral health on school attendance and learning and may be eager to participate in activities focused on improving oral health. Contact the state school health program, which may be housed in the state department of education or the state department of health.

Dental Schools. Dental schools, dental hygiene schools, dental assistant schools, or residency programs in the community may be willing to help provide services, and they may also be able to assist with data collection. A Web site useful for locating local schools and programs is http://www.adea.org.

Public Health, Medical, and Nursing Schools. Schools of public health, medical schools, or nursing schools in the region, state, or community may be able to help assess data. A Web site useful for locating such schools is http://www.asph.org.

Associations or Primary Care Programs. A statewide or regional community oral health association or primary care program may provide oral health information, resource sharing, mentoring, and policy promotion. Such associations or programs may also arrange continuing education opportunities that are geared to the needs and interests of oral health professionals. Contact the state oral health office about gaining access to such associations or programs.

Community Action Agencies. Community Action Agencies (CAAs) help people help themselves in achieving self-sufficiency. CAAs are oriented toward advocacy, can provide entry into low-income communities, and may be able to offer other resources to help improve community oral health. Information about local CAAs is available at http://www.communityactionpartnership.com/about/about_caas/default.asp.

Child Care and Education Programs. Early Head Start and Head Start programs have data available about the health, including oral health, of children enrolled in the program. Contact the Head Start-state collaboration office for information. See http://www.acf.hhs.gov/programs/hsb/contacts/statecollab.htm.

Child care providers are often interested in partnering with the community to offer services to families. The agency administering the Child Care and Development Fund can provide information about local child care programs. See http://nccic.org/statedata/dirs/devfund.html.

Nutrition Programs. WIC, the Food Stamp program, and Cooperative Extension Services are other important resources in efforts to improve oral health. Information about WIC is available at http://www.fns.usda.gov/wic/contacts/statealpha.htm. Information about the Food Stamp program is available at http://www.fns.usda.gov/fsp/outreach.

Area Health Education Centers (AHECs). AHECs bring together many health care disciplines to focus on common concerns, including oral health; provide continuing education; and address work force and policy issues. See http://www.nationalahec.org/main/index.asp.

Other Community Programs and Services. Some communities have charitable, faith-based, or dental-society-supported programs focused on issues that may include oral health. Often, communities have an inter-agency council or directory, which may include information obtained about current health services capacity (including oral health services capacity) and perceptions of unmet needs. Other resources may include local and regional foundations, local businesses, health and dental insurance carriers, and dental supply businesses.

Community Water Fluoridation

Since community water fluoridation is one of the primary contributors to improved oral health, it is important to learn about the status of water fluoridation in the community.

CDC supports a national water fluoridation reporting system that contains data on water fluoridation. Information is available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5107a2.htm.

The state oral health and/or environmental health office or section may be able to provide data on water fluoridation as well as information about alternatives to water fluoridation such as school-based fluoride mouth rinse programs, fluoride varnish programs, and Head Start fluoride tablet programs. Oral health data may be collected in general health surveys conducted by the state health department.

Questions related to community water fluoridation include

- Does the community have a source of fluoridated water? If it doesn't, how easy or difficult would it be to obtain water fluoridation?
- Is a law and/or process in place to obtain water fluoridation?
- What is the cost of water fluoridation?
- What is the community history of water fluoridation?
- Who can we work with to obtain water fluoridation for the community?

A useful Web site with information about community water fluoridation is at http://www.ada.org; type fluoridation in the search box.

Oral Health Work Force

Learning about the capacity of the community's oral health work force is critical in developing, integrating, expanding, or enhancing community oral health programs. Information about work force capacity is available from several sources. These include

Health Resources and Services Administration, Bureau of Health Professions. Information about health professions shortage designation criteria and currently designated areas is available via a searchable database at http://bhpr.hrsa.gov/shortage.

State, County, and Local Dental Associations. These dental associations may be able to provide information about the availability of general dentists, pediatric dentists, oral surgeons, periodontists, prosthodontists, and hospital oral health services. See http://www.dental-resources.com/assoc2.html.

State Dental Licensing Boards. These boards have lists of licensed dentists and dental hygienists in each state. The state board may be able to provide a list of licensees organized by zip code.

State Health Departments. State health departments generally have an organization unit that focuses on health work force issues. See http://www.cdc.gov/mmwr/international/relres.html.

State Medicaid Office. The state Medicaid office may be able to provide information about the extent to which oral health professionals accept Medicaid and SCHIP, which services are covered, and Medicaid and SCHIP services utilization data. It is important to learn about barriers to care that may exist related to Medicaid program regulations and practices. See http://www.cms.hhs.gov/medicaid/allstatecontacts.asp.

State Primary Care Associations and Primary Care Offices. Located in each state, these organizations and associations may have conducted helpful work force or other related assessments. See http://bphc.hrsa.gov/osnp/pcapco.htm.

Work Force Investment Boards. Work force data and projections of future needs, in addition to funding for continuing education and resources to help expand the oral health work force, may be available at http://www.nawb.org/asp/links.asp.

4. Analyze Data

After collecting data, it must be described, analyzed, and interpreted, and a judgment must be made about the meaning of the findings in the context of the assessment. The goal of data analysis here is not to look for statistical significance but rather for associations and differences in access to and utilization of oral health services and in the oral health status of various population groups. Therefore, the focus of the data analysis is on an examination of frequencies and the cross-tabulation of relationships among specific areas important to answering needs-assessment questions. For example, the data may reveal that preschool-age children from a particular census track have particularly high rates of early childhood caries.

Databases can be constructed to support analysis using, for example, Statistical Analysis Software for quantitative data analysis and Microsoft Access for qualitative data analysis. Qualitative data can be reviewed for patterns or themes and then categorized into recurring topics that seem relevant to assessment questions. Qualitative records should carry identifiers that allow them to be linked to quantitative data. This permits the direct integration of quantitative and qualitative data.

The quantitative and qualitative information gathered is analyzed together in the context of the needs-assessment questions to assess how findings from the two data sources compare, where they agree, where they diverge, and what light qualitative findings may shed on the quantitative data.

If data are available over an extended period of time, it may be possible to examine trends. For example, is there a discernable decrease in the number of school-age children regularly accessing oral health services? Is there an increase in the number of children with tooth decay enrolling in Head Start or kindergarten? What was occurring during these time frames that may have influenced the trends? For example, have Medicaid dental reimbursement rates kept up with inflation?

Analyzing gaps between an acceptable standard and data obtained can also yield information that is useful for planning community oral health programs. The key in a gap analysis is determining

the minimum standard to which current assessment findings will be compared. For example, if the tooth decay rate is higher in children enrolled in Head Start than the Head Start standard, a gap has been identified. The needs assessment planning committee can work together to determine the standard against which current data can be compared. Possible standards include Medicaid's Early and Periodic Screening, Diagnostic and Treatment (EPSDT) program regulations and *Healthy People 2010* objectives.

Once data have been collected, organized, and analyzed, it is time to move to the next step in the process—using this information for planning.

Step 3. Determine Priorities and Plan the Program

Addressing all the unmet needs and access issues identified in the needs assessment is rarely feasible. Therefore, it necessary to identify the needs that are of highest priority for the community. Determining health priorities helps direct resources to the programs that matter most to communities. Additionally, legitimate documented needs, including those that cannot be immediately addressed, can be useful for responding quickly to funding opportunities that may become available in the future.

Several priorities may be identified, some to be addressed immediately and others to be dealt with later. It is important to reach consensus on oral health priorities and to then create realistic objectives to address these priorities. A thorough priority-setting process that is inclusive and documented can help garner widespread support and endorsement for subsequent actions.

A. Prioritize Needs

The process of prioritizing needs is best accomplished by a group of stakeholders who have reviewed the analysis of assessment data, understand the issues, and are knowledgeable about the community. The more inclusive the process, the larger the group of stakeholders who will take ownership of the problem and of proposed solutions. The community oral health coalition can act as the core group for this process while involving other interested stakeholders.

Although it is essential to focus efforts to make tasks manageable and to show results, with so many competing priorities it is often difficult to determine where to channel resources. To differentiate among competing priorities, it is useful to establish criteria or guidelines for use in discussions about priorities. Before discussions begin, it is important to ensure that everyone involved understands and accepts the criteria for recommending and adopting priorities.

The following criteria may be helpful in making decisions about priorities:

Impact of Addressing the Problem. Assess the feasibility and impact of addressing the problem, and correlate the two. For example, the needs assessment may have identified a lack of oral health services available for young children. Stakeholders would then determine the feasibility and perceived impact of addressing this problem.

The Size or Extent of the Problem. Assess and compare the perceived size or extent of the problem (e.g., how many individuals are affected), the seriousness of the problem, and the feasibility of implementing evidenced-based interventions that will result in improved outcomes.

Indicators. Compare local oral health indicators to national oral health indicators. Use a ranking system (e.g., 1–5) to identify indicators as "better than," "same as," or "worse than," and then arrive at a consensus about where the community should focus its efforts.

Availability of Acceptable Interventions. Assess the availability of interventions, the feasibility of implementing such interventions, and their acceptability for addressing a

problem or issue using the Priority Rating System for Public Health Programs (PEARL) Framework, a tool for assessing the socioeconomic, legal, and political viability of various interventions.[11] The framework looks at the following:

P = Propriety; is an intervention suitable?
E = Economics; does it make economic sense to address this problem?
A = Acceptability; will the community agency accept an emphasis on this problem, and will they accept the proposed intervention?
R = Resources; are funding and other resources available or potentially available?
L = Legality; do the current laws allow the intervention to be implemented, and if not, is it worthwhile to expend time, energy, and resources working for legislative and regulatory change?

Finally, consider a review of current best practices; this can provide essential information and guidance about interventions that are effective in actual practice, including information about the effectiveness of emerging interventions such as the use of fluoride varnish in young children. It is important to make use of the experiences of others involved in promoting community oral health so that time, energy, and other resources are not wasted. Included in Appendix C and D are tables that display effective community and individual preventive measures for tooth decay prevention and a comparison of five effective community tooth-decay-prevention programs.

The *Healthy People 2010* Web site (http://www.healthypeople.gov/state/toolkit/priorities.htm) contains information, toolkits, and worksheets that can be helpful in determining priorities.

Overall, this assessment will provide information that can be used to determine how best to use available time, energy, and resources in working to develop, integrate, expand, or enhance community oral health programs.

B. Plan for Integration of Cultural Competence

Given the ever-increasing diversity of America's population and documented evidence of the significant disparities in health outcomes experienced by various population groups, an essential component of program planning is cultural competence.

There are many definitions of cultural competence, all of which share similar themes. The Health Resources and Services Administration's (HRSA's) Maternal and Child Health Bureau (MCHB) defines cultural competence as "a set of values, behaviors, attitudes, and practices within a system, organization, and program or among individuals which enables them to work effectively cross culturally. Further, cultural competence refers to the ability to honor and respect the beliefs, language, interpersonal styles and behaviors of individuals and families receiving services, as well as staff who are providing such services."[12]

Striving to achieve cultural competence is a dynamic, ongoing, developmental process that requires a long-term commitment. Cultural competence must be considered at the health-services-system, organizational, and program levels. Cultural competence must be integrated into

policymaking, infrastructure building, program administration and evaluation, and delivery of services.

This integration of cultural competence requires a review of mission statements; policies and procedures, administrative practices; staff recruitment, hiring. and retention practices; professional development and in-service training, translation and interpretation processes, family/professional/community partnerships; health care practices and interventions addressing racial/ethnic health disparities and access issues; health education and promotion practices/materials; and community and state needs-assessment protocols. At the individual level, cultural competences necessitates an examination of one's own attitudes and values, and the acquisition of the values, knowledge, skills, and attributes that allow an individual to work appropriately in cross-cultural situations.

Resources to help ensure the cultural competence of oral health programs include the following:

California Endowment. The California Endowment, a conversion foundation, has developed a number of publications to promote cultural competence, including *A Manager's Guide to Cultural Competency Education for Health Care Professionals*. Materials are available at http://www.calendow.org/program_areas/cultural_competence.stm.

National Center for Cultural Competency (NCCC). NCCC (http://gucchd.georgetown.edu/nccc) provides materials (including definitions, conceptual models, guiding values, and principles) to promote the integration of cultural competence. Also available are tools and processes for self-assessment of cultural competence and guidance for getting started.

National Initiative Children's Healthcare Quality (NICHQ). NICHQ offers the Improving Cultural Competency in Children's Health Care change package and findings, which are available at http://www.nichq.org/nichq.

C. Design the Program

Designing an oral health program involves several steps. While working through these steps, it is important to consider resources including funding sources, existing programs, policies, facility location, internal and external partners, equipment, and the work force.

1. Identify Desired Outcomes

Once priorities have been established, the next step is to consider how they will be addressed. It may be useful to determine the terms to be used and then to ensure that everyone shares a common understanding of the meaning of these terms. The following table identifies some commonly used planning terms.

Choose a Common Planning Language		
Column A	**Column B**	**Column C**
A condition of well-being for children, families, or communities	A measure for which data are available, which quantifies the achievement	A measure of effectiveness of agency or program service delivery
Result Outcome Goal Impact Objective	Indicator Benchmark Milestone Objective	Performance measure Implementation measure Impact measure Program measure

Regardless of which terms are used, it is essential to work through and obtain agreement on desired goals with regard to the goal's priority, the outcomes that must be achieved to meet the goal, what interventions or activities are needed to achieve outcomes, and how to measure the effectiveness of activities and evaluate achievement of outcomes. Objectives or outcomes must be specific, measurable, attainable, reasonable, and timely.

The following table illustrates the relationships between interventions, performance measures, outcomes, indicators, and results.

The Road from Interventions to Results				
Interventions	**Performance Measures**	**Outcomes**	**Indicators**	**Desired Results**
Activities designed to achieve desired outcomes	Measures of the effectiveness of the intervention/ activities	Changes that, when combined, achieve the desired result	Measures that quantify achievement of outcomes	Change in well-being of target audience
Example: conduct screenings to assess oral health of children	Example: number of screenings conducted	Example: parents are educated about the importance of children's oral health and about the dental home	Example: number of parents educated	Example: incidence of children with untreated tooth decay decreases

Interventions must be driven by evidence of their effectiveness. It is important to avoid wasting resources on interventions or activities that will not have a positive impact. Evaluation is key as well. Indicators must be measurable (i.e., indicators and data are available) and understandable. A useful resource when considering indicators is *The Community Indicators Handbook,* which is available at http://www.communityinitiatives.com/indicats.html.

A comprehensive resource for community and program development assistance is the Community Tool Box Web site, which is available at http://ctb.ku.edu/index.jsp. This site is

maintained by the University of Kansas and was developed in collaboration with AHEC/community partners in Massachusetts. The core of the tool box is the topic sections, which include practical guidance for many different tasks necessary to promote community health that are applicable to oral health programs. Step-by-step instructions, examples, checklists, and related resources are available.

Another useful planning strategy is to create a program logic model. Such a model acts as a roadmap or blueprint. Components of a logic model include (1) inputs (resources that go into the program), (2) activities (actual events or actions that take place), (3) products (direct tangible outputs of program activities), and (4) outcomes (impacts of the program).

Example of a Program Logic Model Program for Oral Health Screening of Young Children		
Inputs	**Activities**	**Products/Outcomes**
Oral health professionals trained in assessment and referral Access to early care and education programs Protocol for screening and referral Oral health educational materials for parents of young children Oral health professionals who will accept young children referred through screening program	Promote screening with parents and early care and education staff Recruit children for screenings Conduct screenings Provide education Manage referrals	Young children in selected early care programs are screened for oral disease Parents possess better understanding of their young children's oral health needs Young children without a dental home are referred for ongoing care

For more detailed information about the development and utilization of logic models for program planning, see http://www.cdc.gov/oralhealth/library/pdf/logic_models.pdf.

Another planning model is *Planning for Change,* which is available at http://www.dentalhealthfoundation.org/topics/children/assessment/5.shtml. Many other types of planning systems or models are available, as well.

Crucial to the planning process is a discussion of resource availability and how financial, community, and organizational support for interventions can be sustained over time. Once available resources have been identified, it is possible to determine what additional resources are needed and to establish realistic goals for attaining new resources. At this time it is also important to determine how to obtain and sustain organizational support for the community oral health program.

2. Identify Funding Resources

An essential component of planning is identifying and mobilizing needed resources. It is critical to determine what is genuinely feasible—financially, programmatically, and politically. Therefore, it is important to establish a projected budget for needed resources before conducting a search for resources.

In addition to financial support, there are other categories of resources that can assist with developing, integrating, expanding, or enhancing a community oral health program. One such category is assistance with the process of obtaining financial support. Certain individuals or agencies may be able to obtain initial core funding for the program. Other resources include the expertise of professionals and consumers; the influence that can be brought to bear on decision-makers and funders by local media, advocacy groups, community residents, and leaders; and contributions of physical space, staff time, training opportunities, and materials.

Specific sources of funding for services include

- State public health agency budget
- Federal and/or state oral health grants
- Title V Maternal Child Health Block Grant (federal funds provided in a block grant to state's department of health)
- Prevention Block Grant (federal funds provided in a block grant to the state's department of health)
- National, state, and local foundations
- Community service organizations
- Local businesses (e.g., dental supply companies, health and dental insurance carriers)
- Third-party payers (e.g., Medicaid, SCHIP)

A critical source of financial support is health insurance reimbursement, including that available from both private and public programs such as Medicaid and SCHIP. Medicaid is a significant source of funding for oral health services, especially for children and adolescents. *Opportunities to Use Medicaid in Support of Oral Health Services* is available at http://www.hrsa.gov/medicaidprimer/oral_part3only.htm. Included in this document is a discussion of the EPSDT program, services for children with special health care needs, services in federally qualified health centers, and school-based health services. General information about Medicaid and SCHIP is also available on this site. It is important to learn about and understand the intricacies of the Medicaid program as they affect the delivery of oral health services. Reviewing the state Medicaid plan's policies pertaining to oral health, and discussing these with the state Medicaid director, is useful as well.

When seeking funding, it is vital to be able to document the need for the proposed program and to have a detailed program plan and budget. Information about budgeting and finances can be found in the *Safety Net Dental Clinic Manual,* available at http://www.dentalclinicmanual.com.

The American Dental Association has developed a report on innovative Medicaid program approaches to improving children's access to oral health care. Each state report can be accessed at http://www.prnewswire.com/mnr/ada/20973http://www.prewswire.com/mnr/ada/20973. Other information about financing oral health services and oral health initiatives by state, as well as policy briefs, has been compiled by the Children's Dental Health Project. Information is available at http://www.cdhp.org.

Often, the key to obtaining adequate resources to support programs is staff's ability to weave together various funding streams and community resources. The W. K. Kellogg Foundation has

initiated several community-based oral health programs (http://www.wkkf.org/oralhealth) that were able to blend various funding streams to enhance oral health service delivery. These programs include Kids Get Care, Washington; Apple Tree Dental, Minnesota; and Community DentCare, New York.

Also available from the National Oral Health Policy Center (http://www.healthychild.ucla.edu/NOHPC/default.asp) are the following documents:

- Crall JJ. 2002. Children's oral health services: Organization and financing considerations. *Ambulatory Pediatrics* 2(2 suppl):148–153.
- Edelstein BL, Manski RJ, Moeller JF. 2002. Child dental expenditures: 1996. *Journal of Pediatric Dentistry* 24(1):11–17.
- Milbank Memorial Fund, The Reforming States Group. 1999. *Pediatric Dental Care in CHIP and Medicaid: Paying for What Kids Need, Getting Value for State Payments.* New York, NY: Milbank Memorial Fund.

Raising awareness about oral disease in the community, mobilizing community support, and coming up with a practical plan to address problems are all key to obtaining ongoing financial support.

3. Review Best Practices

In developing, integrating, expanding, or enhancing community oral health programs, it is useful to build on or tailor work that others have already done. Best practices are strategies or programs that have been shown to be effective in addressing a particular problem, with a particular population, in a particular place. A best practice in one environment may not be a best practice in another, and the strength of the evidence base for best practices varies. However, a review of what others have found effective can increase the portfolio of options for addressing a community's oral health needs.

A good place to start a search for best practices is ASTDD's Proven and Promising Best Practices for State and Community Oral Health Programs (http://www.astdd.org/index.php?template=bestpractices.html). Examples of programs are provided, and many aspects of community oral health programming are explored, including the following:

- Water fluoridation
- Alternatives to water fluoridation
- Dental sealants
- Fluoride varnish
- Xylitol gum
- Case management
- Injury reduction
- Tobacco cessation
- Oral cancer prevention
- Clinical treatment

- Oral health education
- Improved Medicaid/SCHIP access

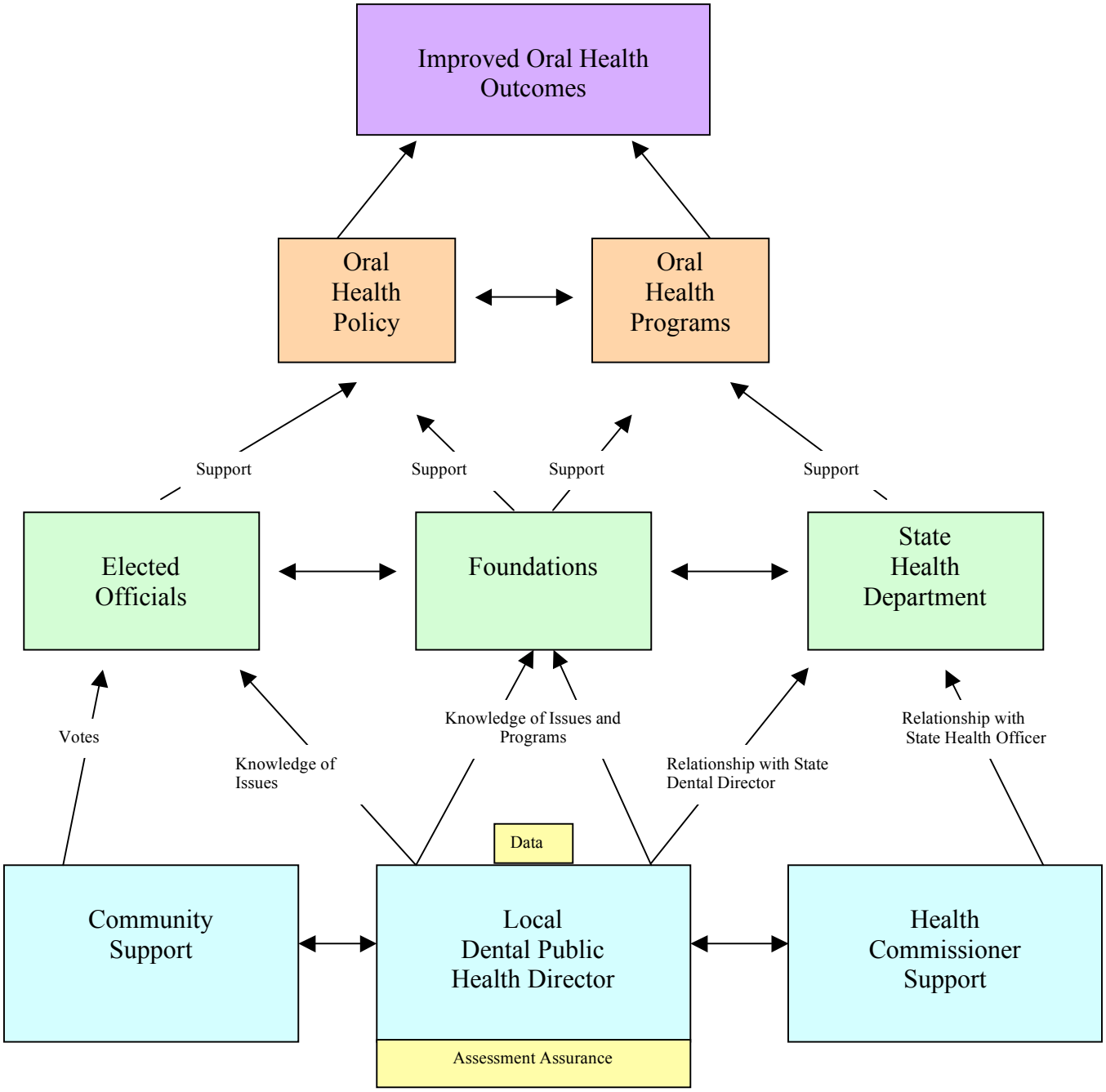
The National Maternal and Child Oral Health Resource Center (http://www.mchoralhealth.org) is another valuable source of information about best practices. The goal of the center is to help states and communities address public oral health issues, and the Materials page on the resource center's Web site features information on an array of public-health-oriented topics. Also available on this Web site is the *Bright Futures Toolbox,* which features *Bright Futures in Practice: Oral Health*, as well as other resource focused on oral health services for children and adolescents, including those with special health care needs. Training materials designed to help health professionals and early childhood professionals effectively work in community settings (e.g., Head Start programs, WIC), are also available through the resource center.

Other best practices resources targeting use of fluoride and dental sealants include

- CDC's statement on community water fluoridation. Available at http://www.cdc.gov/OralHealth/pdfs/SGstatement.pdf.
- CDC's recommendations for using fluoride to prevent and control tooth decay in the United States, including school-based mouth rinse programs and tablet programs. Available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5014a1.htm.
- Information about fluoride applications. Available on ADA's Web site at http://www.ada.org.
- Information about Head Start oral health. Available on the National Head Start Oral Health Resource Center's Web site at http://www.mchoralhealth.org/headstart.
- Information about school-based, school-linked dental sealants. Available at http://www.mchoralhealth.org/pdfs/OHDentSealantFactsheet.pdf.
- Information about mouth guards, tooth decay, oral cancer, and sports-related craniofacial injuries. Available at http://www.cdc.gov/mmwr/PDF/rr/rr5014.pdf.

The following figure graphically illustrates the essential building blocks of local dental public health; the interactions between community residents, local and state officials, and foundations; their collective influence on oral health policy and programs; and how these efforts culminate in improved community health outcomes.

Essential Building Blocks of Local Dental Public Health



Step 4. Implement the Program

While the focus of developing, integrating, expanding, or enhancing a community oral health program is on services, it is important to be aware that implementing services is contingent on agency support and the support of the larger health and oral health services systems.

A. Identify Program Components

Guided by the findings of the needs and resources assessment and the program plan, program components that are missing in the community or that need to be integrated, expanded, or enhanced may now be identified. Each component should be linked to a specific outcome. It is useful to review current best practices to gain insight into the potential impact of the component on outcomes and implementation strategies.

Example: Identifying Program Components for Implementation		
Program Component	**Linked to What Outcome?**	**Best Practice Guidance Used?**
Oral health awareness	Pre-school-age children use preventive oral health services appropriately	What can be learned from the work of others?
School-based oral health screening and referral	School-age children have a dental home	What can be learned from the work of others?

B. Create an Implementation Plan

The next step is to identify key activities for each component, who is responsible for implementing each activity, what resources are needed, and a due date for completing the activity. This step is illustrated in the following table.

Example: Program Component Implementation Plan				
Program Component	**Key Activities**	**Who Is Responsible?**	**Resources Needed**	**Due Dates**
Oral health awareness	Determine target audiences	Local health department	Community demographics	January 15th
	Research oral health attitudes and behaviors of target audience	University sociology department	Faculty and students	February 28th
	Design and test awareness messages with target audience	Local interactive communications firm	Contributed time	March 30th
	Determine venues and vehicles for transmission of messages	Community action agency	Resource assessment data	March 30th
	Implement message delivery	Local health department, Head Start programs, child care centers	Funds from local foundation	April – June
	Evaluate effectiveness of message delivery and impact on target audience	Local health department, local school of public health	Health department staff, faculty, and students	July– September

Keeping new program efforts small scale can allow for working out problems and making changes early on without using resources unnecessarily.

Again, working with a broadly representative group of stakeholders on implementation is a sound strategy. They can bring important resources to the project that include tangibles such as space, staff, and funds and also essential intangibles such as influence, good will, and community connections.

In the implementation phase, the components all come to together. The needs- and resources-assessment process drives the planning process, which consists of the development of goals and objectives and the mobilization of resources, and in turn determines the focus and structure of program design.

The next section of the *Guide* turns to another crucial step in the process—evaluation.

Step 5. Evaluate the Program

A. Determine How the Evaluation Will Be Used

The question is not whether programs should be evaluated but rather how to evaluate them. Information that reveals whether the program is achieving intended results is essential. Evaluation of a program needs to begin on the day the program begins. Evaluation accomplishes several important tasks, including

- Helping staff understand what is working, what is not working, and why
- Providing managers with information that enables them to make program adjustments
- Permitting periodic evaluations of program activities and progress toward achieving program outcomes
- Helping to ensure support from policy and funding entities

An ongoing evaluation process facilitates fine-tuning and allows programs to make important changes quickly to improve outcomes. Evaluation also provides data that can be used to support program continuation, enhancement, or expansion. Evaluation results are of interest to a wide variety of stakeholders and will serve to keep them engaged in and committed to the program's success. A useful evaluation-planning resource is the *Framework for Program Evaluation in Public Health* featured in the September 1999 *Morbidity and Mortality Weekly Report* and available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4811a1.htm.

B. Determine Evaluation Questions

It is impossible to evaluate every aspect of a program, nor would it be useful to do so. It is important to consider what is important to evaluate and what will be done with evaluation information. Evaluations should be simple and practical. The following table provides some examples of the relationship between evaluation questions and the use of answers to these questions.

Relationship of Evaluation Questions to Use of Answers	
Evaluation Questions	**Use of Evaluation Answers**
1. Who is using the program (by age, race, ethnicity, income, place of residence, insurance status, oral health status, type of service)?	1. Determine whether the program is reaching target audience. If it is not, revise outreach efforts.
2. What is the level of satisfaction of those using the program (by age, race, ethnicity, income, place of residence, insurance status, oral health status, type of service)?	2. Determine whether the program is meeting needs as perceived by users. If it is not, revise program strategies.
3. What are the relationships between program participation and positive changes in oral health status (by age, race, ethnicity, income, place of residence, insurance status, oral health status, type of service)?	3. Determine whether the program is achieving desired results. If it is not, review and revise program structure and strategies.

The Community Tool Box, Introduction to Evaluation is a useful resource that not only provides a comprehensive overview of evaluation of community programs but also presents a series of tools and checklists that are helpful in designing and conducting evaluations. The tool box is available at http://ctb.ku.edu/tools/en/chapter_1036.htm.

Effective evaluation is always directly tied to program outcomes. Decision-makers, funders, program staff, and the community as a whole are interested in results; they want to see documentation of positive changes. So, for example, if the needs assessment reveals that young children lack access to ongoing oral health services, stakeholders want to know whether the program developed to address this problem has resulted in a significant increase in the number of young children with access to such services.

Or, in a program designed to provide dental sealants to third graders without access to ongoing oral health care, stakeholders want to know whether the program resulted in a reduced incidence of tooth decay among this population. A sample evaluation design outline is presented in the following table.

Example Evaluation Design for Intervention: School-Based Dental Sealant Program for Third Grade Students			
Overall Desired Result: 20% decrease in students with tooth decay enrolled in fourth grade by 2008. Intervention: Establish school-based dental sealant program for 2006–07 for third grade students without access to ongoing oral health care.			
Intervention Activities	**Performance Measures**	**Desired Outcome**	**Outcome Indicators**
School approves program School provides space for program School facilitates access to children Parents of eligible children return consent forms Volunteers are identified and trained	School signs memorandum of understanding with community oral health program for services School provides space for dental sealant program Schools assists with recruitment of children 65% of parents of eligible children return consent forms 15 volunteers are identified and trained to implement program	50% of eligible third grade students have dental sealants placed	20% decrease in students with tooth decay enrolled in fourth grade in 2008

Intervention activities and progress toward achievement of outcomes should be evaluated using outcome indicators. Data to measure performance and outcomes need to be identified. It is important to develop performance measures and outcome indicators for which data are available and accessible.

When designing an evaluation, it is useful to consider short- as well as long-term outcomes. For example, building on the example above, a long-term outcome of the program would be a decrease in the number of children without tooth decay enrolled in elementary school, while a shorter-term outcome may be a percentage decrease in current rates of tooth decay in 2 years. Often, an evaluation documenting positive short-term outcomes can be used to leverage resources needed to sustain the program.

C. Develop Evaluation Measures

The following table illustrates the relationship between programs, outcomes, data elements, data sources, and resources.

Programs	Outcomes	Data Elements	Data Sources	Resources
Fluoridation of water supplies	Community water supplies are fluoridated	Number of individuals using fluoridated water supplies	State oral health program	http://www.astdd.org/bestpractices/searchspexamples.htm
Clinical-routine treatment	1. Patients comply with treatment plan 2. Patients are satisfied with oral health care 3. Patients comply with preventive care schedule	1. Percentage of patients with completed treatment 2. Percentage of patients indicating satisfaction with timeliness of appointments, office waiting time, or pain management 3. Percentage of patients in compliance with preventive care schedule	1. Chart audit 2. Patient satisfaction survey 3. Chart audit	http://www.dentalclinicmanual.com
Clinical-emergency treatment	1. Patient requests for urgent treatment 2. Emergency room (ER) visits sought for urgent oral health care	1. Number of calls to dental offices for urgent treatment 2. Number of ER visits with oral health emergency as presenting problem	1. County dental society 2. Hospital data	http://www.dentalclinicmanual.com
School-based fluoride	1. Schools participate in programs 2. Eligible children participate in program	1. Percentage of schools participating in program 2. Percentage of eligible children participating in program	1. Department of education/department of health (school health) 2. Department of education, department of health (school health)	http://www.astdd.org/bestpractices/searchSPExamples.htm
School-based, school linked dental sealant	1. Population screened/sealed	1. Number of target population screened/sealed	1. Department of education, public heath	http://www.mchoralhealth.org/materials/a

Programs	Outcomes	Data Elements	Data Sources	Resources
	2. Parents satisfied with program	2. Number of parents satisfied with program.	clinic 2. Parent satisfaction survey	ction.lasso http://www.astdd.org/bestpractices/searchSPExamples.htm
Mouth guard programs	1. Mouth guards delivered	1. Number of children engaged in school sports receiving mouth guards 2. Number of children using mouth guards	1. School data 2. School data	http://www.sportsdentistry-iasd.org/

Program evaluation provides information needed to continually improve the availability, accessibility, and quality of oral health services that, in turn, improve the oral health status of children and families.

The next section of the *Guide* focuses on the role of oral health policy and research and on how community oral health stakeholders can become involved in shaping policy and conducting research.

Step 6. Participate in Policy Development and Research

A. Community Oral Health Policy

Policy formulation is described in *The Future of Public Health* as the "process by which society makes decisions about problems, chooses goals, and selects the proper means to reach them."[14] This section of the *Guide* describes the role of community oral health stakeholders in public policy, the stages of policy development, and mechanisms for staying informed and involved in policy efforts to improve oral health.

1. Role of Stakeholders

Community oral health stakeholders sometimes view policy, laws, regulations, ordinances, rules, and research as being outside their scope of responsibility or expertise. Health policy is often viewed as being established at the government level, but in fact policy can be formed and influenced by an array of groups, including LPHAs, advisory boards, foundations, health insurance carriers, health professionals, and consumers. These stakeholders can play an important part in each stage of the policy process.

2. Stages of Policy Development

U.S. policy development encompasses several stages. Most policy models include the following stages: (1) a statement of the issue to be addressed by the proposed policy as defined by the analyst, (2) placement on the agenda, (3) formulation of the policy, (4) implementation of the policy, and (5) evaluation of the policy.

The first step in developing policy that affects oral health involves determining the current status of oral health outcomes, policies, and opinions. This is followed by agenda placement, which involves drawing the attention of a range of audiences—the general public, the media, and decision-makers—to the issues. Conducting an oral health needs and resources assessment can play a critical role in gaining the attention of these audiences. Audiences must be concerned about a problem before they become interested in developing policy solutions. Community oral health stakeholders can also contribute to the policy process at this stage by crafting policies designed to address identified needs. For example, to address children's lack of access to oral health services, a policy to include oral health services as an SCHIP benefit could be offered as a policy solution.

Identifying the legislative, regulatory, judicial, or other institution responsible for policy adoption and formulation is the next stage in the policy process. Again, oral health stakeholders can provide expert guidance, offering both scientific expertise and hands-on community experience. Once a policy is established, it is up to those in the field to implement it. Since oral health professionals and their partners know their communities, they are in an ideal position to collaborate with state and city/county agencies in the implementation of policies to improve oral health status. Finally, implementing a policy to address particular issues does not necessarily ensure that the issue will be successfully addressed. The policy and its effects must be evaluated against what the policy was designed to accomplish. Those working in community oral health

programs and their colleagues are often well positioned to contribute to evaluations of the impact of policy changes. They can also help to mobilize and nurture ongoing community support for policies and programs to improve oral health status.

It is important to understand what policy-related oral health activities are permissible within the context of a program's mission, role, and source of financial support. While it is the responsibility of health professionals to inform, educate, and advocate for oral health, it is important to be cautious about the line between education and lobbying.

It is also essential to recognize that when programs are funded through tax dollars, there are restrictions on the use of these dollars to influence legislation. In general, taxpayer funds cannot be used to support lobbying of lawmaking bodies. However, it is legal for government employees to speak to their elected representatives on their own time. Agency policy is an important resource when dealing with these issues. Another source of information is the U.S. Department of Internal Revenue's Web site, which is available at http://www.irs.gov/charities/charitable/article/0,,id=120703,00.html . This Web site provides concrete guidelines on political and lobbying activities.

3. Policy Involvement Resources

Listed below are several Web sites and discussion lists that can be helpful in tracking and participating in discussions of current issues, thereby permitting oral health stakeholders to take part in the policy process.

American Association for Community Dental Programs (AACDP). AACDP promotes the availability of effective community oral health programs and develops resources that can be used to strengthen oral health at the community level. AACDP's Web site is available at http://www.aacdp.com.

American Association of Public Health Dentistry (AAPHD). AAPHD is a co-sponsor of the annual National Oral Health Conference and conducts an annual meeting. Its Web site is available at http://www.aaphd.org.

ADA. ADA provides information and resources to oral health professionals. ADA's Web site is available at http://www.ada.org.

State Dental Associations. State associations often track draft legislation and regulations, which are frequently disseminated for public comment before enactment. Contact information for state associations is available at the Health Guide USA Web site at http://www.healthguideusa.org/state_dental_associations.htm.

American Dental Education Association (ADEA). ADEA sponsors a variety of discussion lists that are available to members, along with a newsletter and a news reader service. ADEA's Web site is available at http://www.adea.org.

American Public Health Association (APHA), Oral Health Section. The oral health section works within APHA to promote important oral health issues. The section has sponsored many resolutions that support public oral health policies, programs, and practices. APHA offers opportunities for promoting the integration of oral health into public health and facilitates interactions among public health colleagues from diverse disciplines and organizations. The section's Web site is available at http://www.apha-oh.org.

ASTDD. ASTDD publishes a newsletter, *Oral Health Matters,* and provides action alerts to members. ASTDD also maintains a database of information about public oral health activities searchable by state and by topic. Contact information is provided with each summary. This resource, available at http://www.astdd.org/?template=sp_home.php&shell=state, provides information about state-specific projects. The Web site can also be searched to identify contact information for state-specific oral health coalitions.

Children's Dental Health Project (CDHP). CDHP sends out electronic updates on national legislation and policy matters and provides a news clipping service with information on oral health referenced in various news sources around the country, including local newspapers. CDHP also develops special reports on current and emerging policy issues, including several related to Medicaid. CDHP's Web site is available at http://www.cdhp.org. CDHP has developed a number of reports focused on policy, which are available at http://www.cdhp.org/advocacy/advocacyreports.asp. These reports include the proceedings of two institutes specifically focused on working with policymakers on behalf of oral health. These reports are *Working with Policymakers to Improve Oral Health* and *Working with Policymakers to Advance Oral Health.*

National Conference of State Legislatures (NCSL). NCSL maintains a database that contains information gleaned from the home pages and Web sites of the 50 state legislatures, the District of Columbia, and the territories. Web site content materials (e.g., bills, press rooms, statutes) can be viewed from all states, one state, or a selected list of states. NCSL's Web site is available at http://www.ncsl.org. NCSL also maintains a federal/state issues section containing policy briefs on current issues as well as information about Webcasts in which a variety of policy issues are discussed.

National Association of Counties (NACO). NACO maintains a legislative action center with information about legislation affecting counties. This information is available at http://capwiz.com/naco/home.

National Oral Health Policy Center. The center seeks to identify policy roadblocks and improvements to accessing oral health care, with a particular focus on children and families with low incomes covered by Medicaid, who at are at high risk for chronic tooth decay. The center is also charged with identifying ways in which oral health may be better integrated with other health services. The center's Web site, which is available at http://www.healthychild.ucla.edu/NOHPC/default.asp, provides information about a variety of oral health policy issues.

Oral Health America (OHA). OHA advocates for oral health and makes available a periodic electronic newsletter containing the latest news in oral health, legislative updates, and links to articles about oral heath. OHA's Web site is available at http://www.oralhealth America.org.

Public Health Training Network (PHTN). This CDC-sponsored group is a distance-learning network of individuals and resources that takes training and information to the learner. PHTN uses a variety of instructional media ranging from print-based to videotape and multimedia to meet the training and information needs of the health work force nationwide. Of particular interest in the PHTN is *The Legal Basis of Public Health Modules* (http://www.phppo.cdc.gov/phtn/legal-basis), which comprises 10 modules focused on policy development, public health law, regulations, and enforcement. This curriculum covers the process of drafting legislation and regulations and highlights methods for shaping the enactment of clear, effective, and enforceable laws and regulations.

Community Oral Health Program Discussion List. This discussion list is a forum for communication between local oral health directors and personnel. The list facilitates discussion about the operation of oral health programs and allows participants to explore potential solutions and share ideas. The list is maintained and administered by OHRC (e-mail: info@mchoralhealth.org). To join the list, individuals should complete the electronic form at http://www.mchoralhealth.org/cohp.lasso.

Dental Public Health Discussion List. This discussion list relates to oral public health. Anyone may join. The list is maintained and administered by Dr. Robert Weyant (e-mail: rjw1+@pitt.edu). To join the list, individuals should send a message to majordomo@list.pitt.edu. In the body of that message (not the subject line) type the following message: subscribe dental-public-health.

4. Using National Policies

It is important to make use of established and well-accepted national public health and oral health policies that can be referenced to influence state and local policy development and implementation. These include the 10 essential public health services that are the guiding principles embraced by the National Association of City and County Health Officers, and serve as the foundation for *A Model Framework for Community Oral Health Programs: Based on the Ten Essential Public Health Services* (http://www.aacdp.com/Docs/Framework.pdf). The *Framework* provides policy support for developing, integrating, expanding, or enhancing community oral health programs within LPHAs.

Other national oral health policies adopted by government agencies such as CDC and HRSA, and by member organizations such as ADA and the American Academy of Pediatric Dentistry, can also be used to guide and support local policies to improve oral health. For example, when approaching a local school board about developing a school-linked sealant program, it is useful to share national policies supporting dental sealants and school-linked, school-based sealant programs. See CDC's Web site, which is available at http://www.cdc.gov/oralhealth/index.htm.

B. Community Oral Health Research

Another responsibility of oral health stakeholders is the development of new knowledge and the refinement of existing knowledge. Stakeholders at the community level are in a unique position to bridge the gap between the development and application of knowledge, and therefore, have a special role to play in research.

1. Research Opportunities and Benefits

Local public oral health programs often have both process and outcome data and a community perspective that would greatly benefit others if the information were published or placed in the public domain. At the local level, there is limited data and little supportive research in the literature. Therefore, it is critical to share information.

Research-related activities can generate many different types of benefits, including promoting program visibility; increasing collaboration, resources, understanding, and support from local and state oral health organizations; and enhancing or sustaining support from community organizations, funding sources, governing bodies, and decision-makers.

2. Conducting Research

In conducting research, the first step is to consider the purpose of the research. Will results improve access, availability, or utilization of care? Who are the intended audiences? What kind of data is needed, and how can it be collected? What resources are available to properly analyze and present findings? How will findings be accepted and used? It is important to ensure that involvement in research activities is consistent with program interests and the program population and that evaluation design is focused on improving oral health in the community.

It is useful to obtain help in conducting research. Dental schools may be a good resource. A list is available from the International Association for Dental Research (http://www.iadr.com/resources/index.html). The American Association for Dental Research (AADR) (http://www.iadr.com/) also has information about sources of support for oral health research and a searchable database of research articles.

3. Research Resources

Following is a list of resources that may be helpful in conducting research:

AADR. The objectives of AADR are to advance research and increase knowledge for the improvement of oral health, support and represent the research community, and facilitate the communication and application of research findings. AADR's journal, the *Journal of Dental Research,* is available at http://www.iadr.com/about/aadr/mission.html.

ADA. ADA's Web site, which is available at http://www.ada.org, contains information on survey research on dentistry, lists of dental organizations, and other items of potential interest.

ADEA. From ADEA's Web site, which is available at http://www.adea.org, click on "Federal Grants" to view funding information supported by the Association of Health Research and Quality, CDC, the Food and Drug Administration, HRSA, and the National Institutes of Health, as well as *A How to Guide to Developing and Writing HHS Grants*.

CDC. CDC's Web site, which is available at http://www.cdc.gov/pc, provides a link to CDC-sponsored prevention research centers. These are extramural centers that strive to increase knowledge about preventing and controlling chronic disease. Centers are housed within schools of public health, medicine, or osteopathy.

Community-Based Partnerships in Research. This discussion list (https://mailman1.u.washington.edu/mailman/listinfo/cbpr) is a venue to post questions and receive responses from individuals involved in community-linked research. The list also contains archives of previously posted questions and answers, along with discussions that might be helpful to program staff considering participating in research activities.

Community-Campus Partnerships for Health (CCPH). CCPH's Web site, which is available at http://depts.washington.edu, describes resources for technical assistance; lists upcoming conferences; and provides an e-news service, materials from the Web conference *Community-Based Participatory Research: A Systematic Review of the Literature and Implications,* and access to grant notices in the newsletter, *Partnership Matters*. From the Web site home page, click on "Research" to view a series of bulleted topics related to research, including reports, presentations, peer-reviewed journal articles, electronic discussion lists, and Web links.

NIDCR. NIDCR's Web site, which is available at http://www.nidcr.nih.gov, provides information about funding opportunities and grant application and review procedures. Information on NIDCR's Five Centers for Research to Reduce Oral Health Disparities is available at http://www.nidcr.nih.gov/newsandreports/newsreleases/newsrelease10012001.htm.

Conclusion

Good oral health is not only essential to good overall health and freedom from the pain and suffering associated with oral disease; it also affects self-esteem, quality of life, and performance at school and at work. Therefore, the public health community must view oral health as essential. We hope that the *Guide* will help LPHAs engaged in efforts to improve community oral health services in the development, integration, expansion, and enhancement of oral health programs.

References

1. Allukian M. 2003. Oral diseases: The neglected epidemic. In Scutchfield FD, Keck, CW, eds. *Principles of Public Health Practice* (2nd ed). Albany, NY: Delmar Publishers.
2. U.S. Department of Health and Human Services. 2000. *Healthy People 2010 Objectives for Improving Health: Focus Area 21—Oral Health.* Washington, DC: U.S. Department of Health and Human Services. http://www.healthypeople.gov/document/html/volume2/21oral.htm.
3. U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research. 2000. *Oral Health in America: A Report of the Surgeon General.* Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research. http://www.nidcr.nih.gov/aboutnidcr/surgeongeneral/default.htm.
4. Allukian M, Horowitz AM. 2002. Effective community prevention programs for oral diseases. In Gluck G, Morganstein W, eds., *Jong's Community Dental Health* (5th ed.). St. Louis, MO: Mosby Press.
5. Hasat A, Brown C, Fraser M. 2001. *Local Public Health Agency Infrastructure: A Chartbook.* Washington, DC: National Association of County and City Health Officials.
6. U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research. 2003. *National Call to Action to Promote Oral Health: A Public-Private Partnership Under the Leadership of the Office of the Surgeon General.* Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research. http://www.nidr.nih.gov/sgr/nationalcalltoaction.htm.
7. Vargas CM, Crall JJ, Schneider DA. 1998. Sociodemographic distribution of pediatric dental caries: NHANES III, 1998–1994. *Journal of American Dental Association* 129(9):1229–1238.
8. U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research. 1999. *Healthy People 2000: Progress Review on Oral Health.* Washington, DC: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research. http://odphp.osophs.dhhs.gov/pubs/hp2000/pdf/prog_rvw/proral.pdf.
9. Mueller CD, Schur CL, Paramore LC. 1998. Access to dental care in the United States. *Journal of the American Dental Association* 129(4):429–437.
10. Vilnius D, Dandoy S. 1990. A priority rating system for public health programs. *Public Health Reports* 105(5):463–470.
11. National Center for Cultural Competence. *Definitions and Conceptual Framework of Cultural Competence.* http://gucchd.georgetown.edu/nccc/framework.html#1c.
12. Institute of Medicine, Division of Health Care Services, Committee for the Study of the Future of Public Health. 1989. *The Future of Public Health*. Washington, DC: National Academy Press.
13. Declercq E. 1999.The health and welfare policy process: The case of the 1967 welfare reforms. In Wallace H, ed., with Green G, Jaros KJ, Paine LL, Story M., *Health and Welfare for Families in the 21st Century.* Toronto, Canada: Jones and Bartlett.

Appendix A: Resources Organized by Steps in the Process of Developing, Integrating, Expanding, or Enhancing Community Oral Health Programs

Overview of the Guide

Allukian M. 2003. Oral diseases: The neglected epidemic. In Scutchfield FD, Keck CW, eds. *Principles of Public Health Practice* (2nd ed.). Albany, NY: Delmar Publishers.

Allukian M, Horowitz AM. 2002. Effective community prevention programs for oral diseases. In Gluck G, Morganstein W, eds., *Jong's Community Dental Health* (5th ed.). St. Louis, MO: Mosby Press.

American Association of Community Dental Programs Cincinnati Health Department. 2006. *A Model Framework for Community Oral Health Programs: Based Upon the Ten Essential Public Health Services.* Cincinnati, OH: American Association of Community Dental Programs, Cincinnati Health Department. http://www.aacdp.com/Docs/Framework.pdf.

Hasat A, Brown C, Fraser M. 2001. *Local Public Health Agency Infrastructure: A Chartbook.* Washington, DC: National Association of County and City Health Officials.

Lorenzo SB, Holt KA. 2006. *Knowledge Path: Oral Health and Children and Adolescents.* Washington, DC: National Maternal and Child Oral Health Resource Center. http://www.mchoralhealth.org/knwpathoralhealth.html.

National Institute of Dental and Craniofacial Research. 2003. *National Call to Action to Promote Oral Health: A Public-Private Partnership Under the Leadership of the Office of the Surgeon General.* Rockville, MD: National Institute of Dental and Craniofacial Research. http://www.nidr.nih.gov/sgr/nationalcalltoaction.htm.

National Maternal and Child Oral Health Resource Center [Web site]. http://www.mchoralhealth.org.

U.S. Department of Health and Human Services. 2000. *Oral Health in America: A Report of the Surgeon General.* Rockville, MD: National Institute of Dental and Craniofacial Research. http://www.nidcr.nih.gov/aboutnidcr/surgeongeneral/default.htm.

U.S. Department of Health and Human Services. 2000. *Healthy People 2010 Objectives for Improving Health: Focus Area 21—Oral Health.* Washington, DC: U.S. Department of Health and Human Services. http://www.healthypeople.gov/document/html/volume2/21oral.htm.

Step 1. Mobilize Community Support

Cohen L, Baer N, Satterwhite P. 2002. Developing effective coalitions: An eight step guide. In Wurzbach ME, ed., *Community Health Education & Promotion: A Guide to Program Design and Evaluation* (2nd ed.). Gaithersburg, MD: Aspen Publishers. http://www.preventioninstitute.org/eightstep.html.

Washington State Department of Health, Community and Family Health. 2000. *Community Roots for Oral Health: Guidelines for Successful Coalitions.* Olympia, WA: Washington State Department of Health, Community and Family Health. http://www.doh.wa.gov/cfh/oral_health/community_roots.htm.

Step 2. Assess Needs and Resources

Apanian D, Malvitz D, Presson S. 2002. Populations receiving optimally fluoridated public drinking water—United States, 2000. *Morbidity and Mortality Weekly Report* 51(7):144–147. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5107a2.htm.

American Dental Education Association [Web site]. Dental Schools & Allied Education Programs. Dental Schools. http://www.adea.org.

Association of Schools of Public Health [Web site]. http://www.asph.org.

Association of State and Territorial Dental Directors [Web site]. http://www.astdd.org.

Association of State and Territorial Dental Directors. 2003. *Assessing Oral Health Needs: ASTDD Seven-Step Model* (rev. ed.). Jefferson City, MO: Association of State and Territorial Dental Directors. http://www.astdd.org/index.php?template=seven_steps.html.

Association of State and Territorial Dental Directors, with Ohio Department of Health. 2003. *Basic Screening Surveys: An Approach to Monitoring Community Oral Health* (rev. ed.). Jefferson City, MO: Association of State and Territorial Dental Directors; Columbus, OH: Ohio Department of Health. http://www.astdd.org/?template=basic_screening.html.

Beltran-Aguilar ED, Barker LK, Canto MT, Dye BA, Gooch BF, Griffen SO, Hyman J, Jaramillo F, Kingman A, Nowjack-Raymer R, Selwitz RH, Wu T. 2005. Surveillance for dental caries, dental sealants, tooth retention, edentulism, and enamel fluorosis: United States, 1988–1994 and 1999–2002. *Morbidity and Mortality Weekly Report Surveillance Summaries* 54(3):1–44.

Carter NL. 1995. *Seal America: The Prevention Invention.* Cincinnati, OH: American Association of Community Dental Programs, Cincinnati Health Department. http://www.mchoralhealth.org/seal.

Centers for Disease Control and Prevention [Web site]. *Public Health Resources: State Health Departments.* http://www.cdc.gov/mmwr/international/relres.html.

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion [Web site]. *Behavioral Risk Factor Surveillance System (BRFSS)*. http://www.cdc.gov/brfss/index.htm.

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion [Web site]. Oral Health Data Systems, Oral Health Maps. http://apps.nccd.cdc.gov/gisdoh.

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion [Web site]. *National Oral Health Surveillance System (NOHSS)*. http://www.cdc.gov/nohss.

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion [Web site]. *Synopses of State and Territorial Dental Public Health Programs*. http://www2.cdc.gov/nccdphp/doh/synopses/index.asp#directors.

Centers for Medicare & Medicaid Services [Web site]. *Medicaid Program—General Information*. http://www.cms.hhs.gov/medicaid/allstatecontacts.asp.

Child Trends DataBank. [n.d.]. *Unmet Dental Needs.* http://childtrendsdatabank.org/indicators/82unmetdentalneeds.cfm.

Community Action Partnership [Web site]. *About Community Action Agencies (CAAs)*. http://www.communityactionpartnership.com/about/about_caas/default.asp.

Dental Resources [Web site]. http://www.dental-resources.com/assoc2.html.

Head Start Bureau [Web site]. *Head Start-State Collaboration Offices.* http://www.acf.hhs.gov/programs/hsb/contacts/statecollab.htm.
Health Resources and Services Administration, Bureau of Health Professions [Web site]. *Shortage Designations.* http://bhpr.hrsa.gov/shortage.
Health Resources and Services Administration, Bureau of Primary Health Care, Division of State and Community Assistance [Web site]. *Primary Care Associations (PCAs) and Primary Care Offices (PCOs)*. http://bphc.hrsa.gov/osnp/pcapco.htm.
Indian Health Service [Web site]. *Area Offices and Facilities.* http://www.ihs.gov/facilitiesservices/areaoffices/areaoffices_index.asp.
Isman B. 2004. *Healthy People 2010: Oral Health Toolkit.* Bethesda, MD: National Institute of Dental and Craniofacial Research. http://www.nidcr.nih.gov/NewsAndReports/ReportsPresentation/HealthyPeople.
Mueller CD, Schur CL, Paramore LC. 1998. Access to dental care in the United States. *Journal of the American Dental Association* 129(4):429–437.
National AHEC Organization [Web site]. *Area Health Education Centers, Health Education Training Centers*. http://www.nationalahec.org/main/index.asp.
National Assembly on School-Based Health Care [Web site]. http://www.nasbhc.org.
National Association of Workforce Boards [Web site]. *Workforce Development Links.* http://www.nawb.org/asp/links.asp.
National Child Care Information Center [Web site]. *Child Care and Development Fund Contacts.* http://nccic.org/statedata/dirs/devfund.html.
National Institute of Dental and Craniofacial Research. 1999. *Healthy People 2000: Progress Review on Oral Health.* Washington, DC: National Institute of Dental and Craniofacial Research. http://odphp.osophs.dhhs.gov/pubs/hp2000/pdf/prog_rvw/proral.pdf.
NIDCR/CDC DRC [Web site]. *NIDCR/CDC Dental, Oral and Craniofacial Data Resource Center (DRC)*. http://drc.nidcr.nih.gov.
U.S. Census Bureau [Web site]. *Housing, Economic, and Geographic Data*. http://factfinder.census.gov.
U.S. Department of Agriculture, Food and Nutrition Services [Web site]. Food Stamp Program. http://www.fns.usda.gov/fsp/outreach.
U.S. Department of Agriculture, Food and Nutrition Service [Web site]. *WIC State Agencies Organized Alphabetically by State Agency Name.* http://www.fns.usda.gov/wic/contacts/statealpha.htm.
Vargas CM, Crall JJ, Schneider DA. 1998. Sociodemographic distribution of pediatric dental caries: NHANES III, 1998–1994. *Journal of American Dental Association* 129(9):1229–1238.
Vilnius D, Dandoy S. 1990. A priority rating system for public health programs. *Public Health Reports* 105(5):463–470.

Step 3. Determine Priorities and Plan the Program

American Dental Association [Web site]. http://www.ada.org.
Association of State and Territorial Dental Directors [Web site]. *Proven and Promising Best Practices for State and Community Oral Health Programs.* http://www.astdd.org/index.php?template=bestpractices.html.

The California Endowment [Web site]. *Cultural Competent Health Systems.* http://www.calendow.org/program_areas/cultural_competence.stm.
Casamassimo P, ed. 1996. *Bright Futures in Practice: Oral Health.* Arlington, VA: National Center for Education in Maternal and Child Health. http://www.brightfutures.org/oralhealth/pdf/index.html.
Centers for Disease Control and Prevention. 2001. Recommendations for using fluoride to prevent and control dental caries in the United States. *Morbidity and Mortality Weekly Report: Recommendations and Reports.* 50(RR-14):1-42. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5014a1.htm.
Centers for Disease Control and Prevention, Division of Oral Health. [n.d.]. *Logic Models.* Atlanta, GA: Centers for Disease Control and Prevention, Division of Oral Health. http://www.cdc.gov/oralhealth/library/pdf/logic_models.pdf.
Children's Dental Health Project [Web site]. http://www.cdhp.org.
Crall JJ. 2002. Children's oral health services: Organization and financing considerations. *Ambulatory Pediatrics* 2(2 suppl):148–153.
Dental Health Foundation [Web site]. Planning for change In *California Oral Health Needs Assessment of Children, 1993–1994.* http://www.dentalhealthfoundation.org/topics/children/assessment/5.shtml.
Edelstein BL, Manski RJ, Moeller JF. 2002. Child dental expenditures: 1996. *Journal of Pediatric Dentistry* 24(1):11–17.
Health Resources and Services Administration. 2000. *Opportunities to Use Medicaid in Support of Access to Health Care Services.* Rockville, MD: Health Resources and Services Administration. http://www.hrsa.gov/medicaidprimer.
Healthy Communities [Web site]. *The Community Indicators Handbook.* http://www.rprogress.org/newprojects/commIndi/index.shtml.
Holt K, Bertness J, with Siegal M. 2003. *Preventing Tooth Decay and Saving Teeth with Dental Sealants* (2nd ed.). Washington, DC: National Maternal and Child Oral Health Resource Center. http://www.mchoralhealth.org/pdfs/ohdentsealantfactsheet.pdf.
Isman B. 2004. *Healthy People 2010: Oral Health Toolkit.* Bethesda, MD: National Institute of Dental and Craniofacial Research. http://www.nidcr.nih.gov/newsandreports/reportspresentation/healthypeople.
Milbank Memorial Fund, The Reforming States Group. 1999. *Pediatric Dental Care in CHIP and Medicaid: Paying for What Kids Need, Getting Value for State Payments.* New York, NY: Milbank Memorial Fund.
National Center for Cultural Competency [Web site]. http://gucchd.georgetown.edu/nccc.
National Head Start Oral Health Resource Center [Web site]. http://www.mchoralhealth.org/headstart.
National Initiative for Children's Healthcare Quality [Web site]. http://www.nichq.org/nichq.
National Maternal and Child Oral Health Resource Center [Web site]. *Bright Futures Toolbox.* http://www.mchoralhealth.org/toolbox/index.html.
National Oral Health Policy Center [Web site]. http://www.healthychild.ucla.edu/NOHPC/default.asp.
Ohio Department of Health, Bureau of Oral Health Services, U.S. Indian Health Service, and Association of State and Territorial Dental Directors. 2003. *Safety Net Dental Clinic Manual.* Columbus, OH: Ohio Department of Health. http://dentalclinicmanual.com.

Truman BI, Gooch BF, Sulemana I, with Horowitz AM, Gift HC, Evans CA. 2001. Promoting oral health: Interventions for preventing dental caries, oral and pharyngeal cancers, and sport-related craniofacial injuries—A report on recommendations of the Task Force on Community Preventive Services. *Morbidity and Mortality Weekly Reports: Recommendations and Reports.* 50(RR-21):1–14. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5021a1.htm.

U.S. Department of Health and Human Services, Office of the Surgeon General. 2004. *Surgeon General Statement on Community Water Fluoridation.* http://www.cdc.gov/oralhealth/pdfs/sgstatement.pdf.

W. K. Kellogg Foundation [Web site]. *Community-Based Oral Health Programs: Lessons from Three Innovative Models.* http://www.wkkf.org/oralhealth.

Work Group on Health Promotion and Community Development [Web site]. *Community Tool Box*. http://ctb.ku.edu/index.jsp.

Step 4. Implement the Program

National Maternal and Child Oral Health Resource Center [Web site]. *Bright Futures Toolbox.* http://www.mchoralhealth.org/toolbox/index.html.

Step 5. Evaluate the Program

Milstein RL, Wetterhall SF. 1999. Framework for program evaluation in public health. *Morbidity and Mortality Weekly Report* 48(RR 11):1–40. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4811a1.htm.

Work Group on Health Promotion and Community Development [Web site]. *Community Tool Box*, *Introduction to Evaluation*. http://ctb.ku.edu/tools/en/chapter_1036.htm.

Step 6. Participate in Policy Development and Research

Policy Development

American Association of Community Dental Programs [Web site]. http://www.aacdp.com.

American Dental Education Association [Web site]. http://www.adea.org.

American Public Health Association, Oral Health Section [Web site]. http://www.apha-oh.org.

Association of Public Health Dentistry [Web site]. http://www.aaphd.org.

Associate of State and Territorial Dental Directors [Web site]. *Dental Public Health Activities.* http://www.astdd.org/?template=sp_home.php&shell=state.

Centers for Disease Control and Prevention [Web site]. *Oral Health Resources.* http://www.cdc.gov/oralhealth/index.htm.

Centers for Disease Control and Prevention, Public Health Training Network [Web site]. *The Legal Basis of Public Health Modules 1–10*. http://www.phppo.cdc.gov/phtn/legal-basis.

Children's Dental Health Project [Web site]. *Advocacy Reports.* http://www.cdhp.org/advocacy/advocacyreports.asp.

Health Guide USA [Web site]. *State Dental Associations.* http://www.healthguideusa.org/state_dental_associations.htm.

Internal Revenue Service [Web site]. *Political and Lobby Activities.* http://www.irs.gov/charities/charitable/article/0,,id=120703,00.html.

National Association of Counties [Web site]. *Issues and Interest Areas.* http://capwiz.com/naco/home.
National Conference of State Legislatures [Web site]. *State and Federal Issues.* http://www.ncsl.org/public/ncsl/nav_statefedissues.htm.
National Maternal and Child Oral Health Resource Center [Web site]. Community Oral Health Programs. http://www.mchoralhealth.org/cohp.lasso.
National Oral Health Policy Center [Web site]. http://www.healthychild.ucla.edu/NOHPC/default.asp.
Oral Health America [Web site]. http://www.oralhealthamerica.org.

Research

American Association of Dental Research [Web site]. http://www.iadr.com.
American Dental Association [Web site]. http://www.ada.org.
American Dental Education Association [Web site]. http://www.adea.org.
Centers for Disease Control and Prevention [Web site]. *Prevention Research Centers.* http://www.cdc.gov/prc.
Community-Campus Partnerships for Health [Web site]. http://depts.washington.edu/ccph.
International Association for Dental Research and American Association for Dental Research [Web site]. http://www.iadr.com.
National Institute of Dental and Craniofacial Research [Web site] http://www.nidcr.nih.gov.

Appendix B. List of Resources by Topic Area

Coalitions/Collaboration

Dental Health Foundation. 2003. *From Protocols to Policy: A Consensus Conference to Increase Children's Access to Early Preventive Dental Services.* Oakland, CA: Dental Health Foundation. http://www.dentalhealthfoundation.org/documents/CCReport.pdf.

Missouri Coalition for Oral Health Access. 2000. *Missouri Coalition for Oral Health Access: Community Information Gathering and Coalition Work Plan Through December 2001.* Allentown, PA: Felix, Burdine and Associates. http://www.mchoralhealth.org/pdfs/missouri_summit.pdf.

U.S. Department of Health and Human Services. National Institute of Dental and Craniofacial Research. 2003. *A National Call to Action to Promote Oral Health: A Public-Private Partnership Under the Leadership of the Office of the Surgeon General.* Rockville, MD: U.S. Department of Health and Human Services. National Institute of Dental and Craniofacial Research. http://www.nidr.nih.gov/sgr/nationalcalltoaction.htm.

Staton A, Lau D, Wertheimer B, Elias M, Katz D, with Cowan D, Sherry S, eds. 2002. *Addressing Oral Health Needs: A How-To Guide* (rev. and exp. ed.). Boston, MA: Community Catalyst. http://www.communitycatalyst.org/resource.php?doc_id=196

Whitley JR. 2002. *A Guide to Organizing Community Forums.* Boston, MA: Community Catalyst. http://www.communitycatalyst.org/resource.php?doc_id=188.

Dental Sealants

Carter NL. 1995. *Seal America: The Prevention Invention.* Cincinnati, OH: American Association of Community Dental Programs, Cincinnati Health Department. http://www.mchoralhealth.org/seal.

Delta Dental Plan of Minnesota. 2004. *Dental Sealants: Seal Out Tooth Decay and Prevent Cavities.* Minneapolis, MN: Delta Dental Plan of Minnesota. http://www.deltadentalmn.org/cm_files/pdf/102504_ddpmn_hst_sealants.pdf.

Holt K, Bertness J, with Siegal M. 2003. *Preventing Tooth Decay and Saving Teeth with Dental Sealants* (2nd ed.). Washington, DC: National Maternal and Child Oral Health Resource Center. http://www.mchoralhealth.org/pdfs/ohdentsealantfactsheet.pdf.

U.S. Department of Health and Human Services. National Institute of Dental and Craniofacial Research. 2003. *Seal Out Tooth Decay: A Booklet for Parents.* Bethesda, MD: U.S. Department of Health and Human Services. U.S. Department of Health and Human Services. National Institute of Dental and Craniofacial Research. http://www.nidcr.nih.gov/healthInformation/diseasesandconditions/sealants/sealouttoothdecay.htm.

Wisconsin Department of Health and Family Services, Division of Public Health. 2005. *Sample Dental Sealant Agency Protocol.* Madison, WI: Wisconsin Department of Health and Family Services, Division of Public Health. http://dhfs.wisconsin.gov/health/Oral_Health/pdf_files/sealantprotocol42505.pdf.

Wisconsin Department of Health and Family Services, Oral Health Program. 2004. *Oral Health Fact Sheets: Information for Consumers.* Madison, WI: Wisconsin Department of Health and

Family Services, Oral Health Program.
http://www.dhfs.state.wi.us/Health/Oral_Health/factsheets.htm.

Community Water Fluoridation

Allukian Jr. M. 2003. Oral disease: The neglected epidemic, In Scutchfield FF, Keck CW, eds., *Principles of Public Health Practice* (2nd ed.). Albany, NY: Delmar Publishers.

American Association of Public Health Dentistry. 1999. *Community Water Fluoridation: The Number One Way to Prevent Dental Decay.* Springfield, IL: American Association of Public Health Dentistry.

American Dental Association. 1999. *Fluoridation Facts.* Chicago, IL: American Dental Association. http://www.ada.org/public/topics/fluoride/facts/index.asp.

American Dental Association, Council on Access, Prevention and Interprofessional Relations. 1997. *Community Organization for Water Fluoridation.* Chicago, IL: American Dental Association, Council on Access, Prevention and Interprofessional Relations.

Association of State and Territorial Dental Directors. 2003. *A Report of State Identified Barriers to Participation in the Water Fluoridation Reporting System (WFRS).* Jefferson City, MO: Association of State and Territorial Dental Directors.

Association of State and Territorial Dental Directors. 2003. *Community Water Fluoridation: A State Best Practice in Dental Caries Prevention.* Jefferson City, MO: Association of State and Territorial Dental Directors.
http://www.astho.org/templates/display_pub.php?pub_id=556&admin=1.

Centers for Disease Control and Prevention. 2001. Recommendations for using fluoride to prevent and control dental caries in the United States. *Morbidity and Mortality Weekly Report: Recommendations and Reports* 50(RR-14):1-42.
http://www.cdc.gov/mmwr/PDF/rr/rr5014.pdf.

Partnership for Prevention. 2000. *Oral Health: Community Water Fluoridation and Other Tooth Decay Prevention Measures.* Washington, DC: Partnership for Prevention.
http://www.prevent.org/policyideas/oh_oral_health.pdf.

Rozier RG. 1996. Proceedings of the International Symposium Celebrating the 50th Anniversary of Water Fluoridation, Grand Rapids, Michigan, September 1995. *Journal of Public Health Dentistry* 56(5):233–300.

Truman BI, Gooch BF, Sulemana I, with Horowitz AM, Gift HC, Evans CA. 2001. Promoting oral health: Interventions for preventing dental caries, oral and pharyngeal cancers, and sport-related craniofacial injuries—A report on recommendations of the Task Force on Community Preventive Services. *Morbidity and Mortality Weekly Reports: Recommendations and Reports* 50(RR-21):1–14. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5021a1.htm.

U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention. 1995. Engineering and administrative recommendations for water fluoridation. *Morbidity and Mortality Weekly Report: Recommendations and Reports* 44(RR-13):1–40. http://www.cdc.gov/mmwr/preview/mmwrhtml/00039178.htm.

U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention. 1996. *National Fluoride Plan to Promote Oral Health: Report of the U.S. Public Health Service Oral Health Coordinating Committee.* Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention.

U.S. Office of the Surgeon General. 2004. *Statement on Community Water Fluoridation.* Rockville, MD: U.S. Office of the Surgeon General. www.cdc.gov/oralhealth/pdfs/sgstatement.pdf.

Wisconsin Department of Health and Family Services, Oral Health Program. 2004. *Oral Health Fact Sheets: Information for Consumers.* Madison, WI: Wisconsin Department of Health and Family Services, Oral Health Program. http://www.dhfs.state.wi.us/health/oral_health/factsheets.htm.

Fluoride Mouthrinse

Centers for Disease Control and Prevention. 2001. Recommendations for using fluoride to prevent and control dental caries in the United States. *Morbidity and Mortality Weekly Report: Recommendations and Reports* 50(RR-14):1–42. http://www.cdc.gov/mmwr/PDF/rr/rr5014.pdf.

Idaho Department of Health and Welfare, Division of Health. 2003. *2003 School Fluoride Mouthrinse Program: Cost Savings.* Boise, ID: Idaho Department of Health and Welfare, Division of Health. http://www.healthandwelfare.idaho.gov/_rainbow/documents%5chealth/cost_savings_school_fluoride_mouthrinse_program.pdf.

Fluoride Varnish

Centers for Disease Control and Prevention. 2001. Recommendations for using fluoride to prevent and control dental caries in the United States. *Morbidity and Mortality Weekly Report: Recommendations and Reports* 50(RR-14):1-42. http://www.cdc.gov/mmwr/PDF/rr/rr5014.pdf.

Deinard A, Tessier S. 2003. *Dental Health Screening and Fluoride Varnish Application.* Minneapolis, MN: University of Minnesota, Department of Pediatrics. http://meded1.ahc.umn.edu/fluoridevarnish.

Iowa Department of Public Health, Bureau of Oral Health. 2003. *Fluoride Varnish Protocol.* Des Moines, IA: Iowa Department of Public Health, Bureau of Oral Health. http://www.idph.state.ia.us/hpcdp/common/pdf/oral_health/fluoride_varnish_protocol.pdf

North Carolina Academy of Family Physicians, North Carolina Pediatric Society, North Carolina Division of Medical Assistance, North Carolina Oral Health Section, University of North Carolina School of Dentistry, and University of North Carolina School of Public Health. 2004. *Into the Mouths of Babes: NC Dental Screening and Varnish Project.* Raleigh, NC: North Carolina Academy of Family Physicians and North Carolina Pediatric Society. http://www.ncafp.com/imb.

Wisconsin Department of Health and Family Services, Division of Public Health. 2005. *Sample Fluoride Varnish Application Program for Children: Agency Protocol.* Madison, WI: Wisconsin Department of Health and Family Services, Division of Public Health. http://dhfs.wisconsin.gov/health/Oral_Health/pdf_files/varnishpolicyprocr42505.pdf; http://dhfs.wisconsin.gov/health/Oral_Health/protocol.htm.

Injury

American Academy of Pediatric Dentistry. 2002. *Pediatric Dental Trauma Card.* Chicago, IL: American Academy of Pediatric Dentistry.

American Association of Oral and Maxillofacial Surgeons. 1999. *Sports Safety.* Rosemont, IL: American Association of Oral and Maxillofacial Surgeons. http://www.aaoms.org/public/Pamphlets/SportsSafety.pdf.

Curzon MEJ, ed. 1999. *Handbook of Dental Trauma: A Practical Guide to the Treatment of Trauma to the Teeth.* Woburn, MA: Butterworth-Heinemann.

Dental, Oral, and Craniofacial Data Resource Center. 2002. *Oral Health U.S., 2002.* Bethesda, MD: Dental, Oral, and Craniofacial Data Resource Center. http://drc.nidcr.nih.gov/report.htm.

Littel K. 2004. *Family Violence: An Intervention Model for Dental Professionals.* Washington, DC: U.S. Office for Victims of Crime. http://www.ovc.gov/publications/bulletins/dentalproviders/ncj204004.pdf.

Truman BI, Gooch BF, Sulemana I, with Horowitz AM, Gift HC, Evans CA. 2001. Promoting oral health: Interventions for preventing dental caries, oral and pharyngeal cancers, and sport-related craniofacial injuries—A report on recommendations of the Task Force on Community Preventive Services. *Morbidity and Mortality Weekly Reports: Recommendations and Reports* 50(RR-21):1–14. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5021a1.htm.

Policies

American Academy of Pediatric Dentistry. 2006. *Reference Manual.* Chicago, IL: American Academy of Pediatric Dentistry. http://www.aapd.org/media/policies.asp.

Tobacco

Dental, Oral, and Craniofacial Data Resource Center. 2002. *Oral Health U.S., 2002.* Bethesda, MD: Dental, Oral, and Craniofacial Data Resource Center. http://drc.nidcr.nih.gov/report.htm.

Partnership for Prevention. 2000. *Nine High Impact Actions Congress Can Take to Prevent Disease and Promote Health.* Washington, DC: Partnership for Prevention. http://www.prevent.org/images/stories/Files/publications/Nine_High_Impact_Report.pdf.

Petersen PE. 2003. *The World Oral Health Report, 2003: Continuous Improvement of Oral Health in the 21st Century—The Approach of the WHO Global Oral Health Programme.* Geneva, Switzerland: World Health Organization. http://www.who.int/oral_health/media/en/orh_report03_en.pdf.

Truman BI, Gooch BF, Sulemana I, with Horowitz AM, Gift HC, Evans CA. 2001. Promoting oral health: Interventions for preventing dental caries, oral and pharyngeal cancers, and sport-related craniofacial injuries—A report on recommendations of the Task Force on Community Preventive Services. *Morbidity and Mortality Weekly Reports: Recommendations and Reports* 50(RR-21):1–14. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5021a1.htm.

Wisconsin Department of Health and Family Services, Oral Health Program. 2004. *Oral Health Fact Sheets: Information for Consumers.* Madison, WI: Wisconsin Department of Health and Family Services, Oral Health Program. http://www.dhfs.state.wi.us/Health/Oral_Health/factsheets.htm.

Appendix C. Effective Community and Individual Preventive Measures for Dental Caries Prevention

Table 10-2. Effective Community and Individual Preventive Measures for Dental Caries Prevention

Measure	*Method of Application*	*Target*	*Period of Use*
Community Programs			
Community water fluoridation	Systemic	Entire population	Lifetime
School water fluoridation	Systemic	Schoolchildren	School years
School fluoride tablet program	Systemic	Schoolchildren	Age 5-16 yr
School fluoride rinse program	Topical	Schoolchildren	Age 5-16 yr
School sealant program (professionally applied)	Topical	Schoolchildren	Age 6-8 and 12-14 yr
Individual Approach			
Prescribed fluoride tablets or drops	Systemic	Children	Age 6 mo-6 yr
Professionally applied fluoride treatment	Topical	Individual need	High-risk populations
Over-the-counter treatments	Topical	Individual need	High-risk populations
Fluoride toothpaste	Topical	Entire population	Lifetime
Professionally applied dental sealants	Topical	Children	Age 6-8 and 12-14 yr

Source: Allukian Jr. M. 2003. Oral disease: The neglected epidemic. In Scutchfield FF, Keck, CW, eds., *Principles of Public Health Practice* (2nd ed.). Albany, NY: Delmar Publishers.

Appendix D: Comparison of Five Effective Community Prevention Programs for Dental Caries

Table 10-6. Comparison of Five Effective Community Prevention Programs for Dental Caries*

Program	*Effectiveness (%)*	*Adult Benefits*	*Cost per Year*	*Practicality*
Community fluoridation	20-40	Demonstrated	$0.51 per capita‡ $0.72 per capita†	Excellent; most practical; no individual effort necessary
School fluoridation	20-30§	Expected but not demonstrated	$0.85-$9.88 per child‡ $1.19-$13.83 per child†	Good; if there is no central community water supply, no individual effort necessary
School dietary fluoride	30	Expected but not demonstrated	$0.81-$5.40 per child‡,‖ $1.13-$7.56 per child†	Fair, continued school regimen Daily supplement program required for 8-10 yr
School fluoride mouth rinse program	25-28§	Not expected	$0.52-$1.78 per child‡,‖ $0.73-$2.49 per child†	Fair; continued daily or weekly school regimen required
School sealant program	51-67¶	Expected but not demonstrated	$13.07-$28.37 per child‡ $18.30-$39.72 per child†	Good; primarily done for children ages 6-8 yr and 12-14 yr

Data from Burt B: Proceedings of the workshop. Cost-Effectiveness of Caries Prevention in Dental Public Health, *J Public Health Dent* 1989:49(5, spec iss): Allukian M: Oral diseases: the neglected epidemic. In Scutchfield FD, Keck WC, editors: *Principles and practices of public health.* Albany, NY, 1996, Delmar.

*This table is a simplified comparison of these prevention programs. A thorough analysis of the literature should be done to understand the relative merits of these programs.

†In 1999 dollars.

‡In 1989 dollars.

§This range may now be high; no recent studies.

‖Includes use of volunteer personnel.

¶First molar chewing surfaces only over 5-year period.

Source: Allukian Jr. M. 2003. Oral disease: The neglected epidemic. In Scutchfield FF, Keck, CW, eds., *Principles of Public Health Practice* (2nd ed.). Albany, NY: Delmar Publishers.

Appendix E: Crosswalk Between 10 Essential Public Health Services, Essential Public Health Services to Promote Oral Health in the United States, and Dental Public Health Competencies

10 Essential Public Health Services*	Essential Public Health Services to Promote Oral Health in the United States**	Dental Public Health Competencies ***
1. Monitor health status to identify community health problems	Assessment: Assess oral health status and needs so that problems can be identified and addressed.	VI. Design and understand the use of surveillance systems to monitor oral health
2. Diagnose and investigate health problems and health hazards in the community	Assessment: Assess the fluoridation status of water systems and other sources of fluoride. Implement a surveillance system to identify, investigate, and monitor oral disease and health hazards.	VI. Design and understand the use of surveillance systems to monitor oral health
3. Inform, educate, and empower people about health issues	Assessment: Inform, educate, and empower the public about oral health problems and solutions.	VII. Communicate and collaborate with groups and individuals on oral health issues
4. Mobilize community partnerships to identify and solve health problems	Policy Development: Mobilize community partnerships among policymakers, professionals, groups, and the public to identify and implement solutions to oral health problems.	VII. Communicate and collaborate with groups and individuals on oral health issues
5. Develop policies and plans that support individual and community health efforts	Policy Development: Develop plans and policies through a collaborative process that supports individual and community oral health efforts to address oral health needs. Provide leadership to address oral health problems by maintaining a strong oral health unit within the health agency.	I. Plan oral health programs II. Select interventions to prevent and control oral disease and to promote oral health III. Develop resources; implement and manage oral health programs for populations
6. Enforce laws and regulations that protect health and ensure safety	Assurance: Promote and enforce laws and regulations that protect and improve oral health, ensure safety, and ensure accountability for the public's well-being.	VIII. Advocate for, implement, and evaluate public health policy, legislation, and regulations to protect and promote the public's oral health

7. Link people to needed health services, and ensure the provision of health care when otherwise unavailable	Assurance: Link people to population-based oral health services, personal oral heath services, and support services, and ensure the availability, access, and acceptability of these services by enhancing system capacity, including directly supporting or providing services when necessary.	II. Select interventions and strategies for the prevention and control of oral diseases and the promotion of oral health V. Evaluate and monitor dental care delivery systems
8. Ensure a competent public health and personal health care work force	Assurance: Ensure that the public health and personal health work force has the capacity and expertise to effectively address oral health needs.	IV. Incorporate ethical standards in oral health programs and activities
9. Assess effectiveness, accessibility, and quality of personal and population-based services	Assurance: Evaluate effectiveness, accessibility, and quality of population-based and personal oral health services.	V. Evaluate and monitor oral health care delivery systems
10. Conduct research for new insights and innovative solutions to health problems	System Management Function: Conduct research and support demonstration projects to gain new insights and applications or innovative solutions to oral health problems.	IX. Critique and synthesize scientific literature X. Design and conduct population-based studies
*Reference: Centers for Disease Control and Prevention. Office of the Director National Public Health Performance Standards Program [Weh site]. *The Essential Public Health Services*. http://www.cdc.gov/od/ocphp/nphpsp/EssentialPHServices.htm **Reference: Association of State and Territorial Dental Directors. 2006. *Guidelines for State and Territorial Oral Health Programs, rev. ed. Jefferson* City, MO: Association of State and Territorial Dental Directors. http://www.astdd.org/docs/ASTDDGuidelines.pdf. ***Reference: American Association of Public Health Dentistry. Dental public health competencies. 1998. *Journal of Public Health Dentistry* 58(Supplement 1):121-122. http://www.aaphd.org/default.asp?page=competencies.htm.		