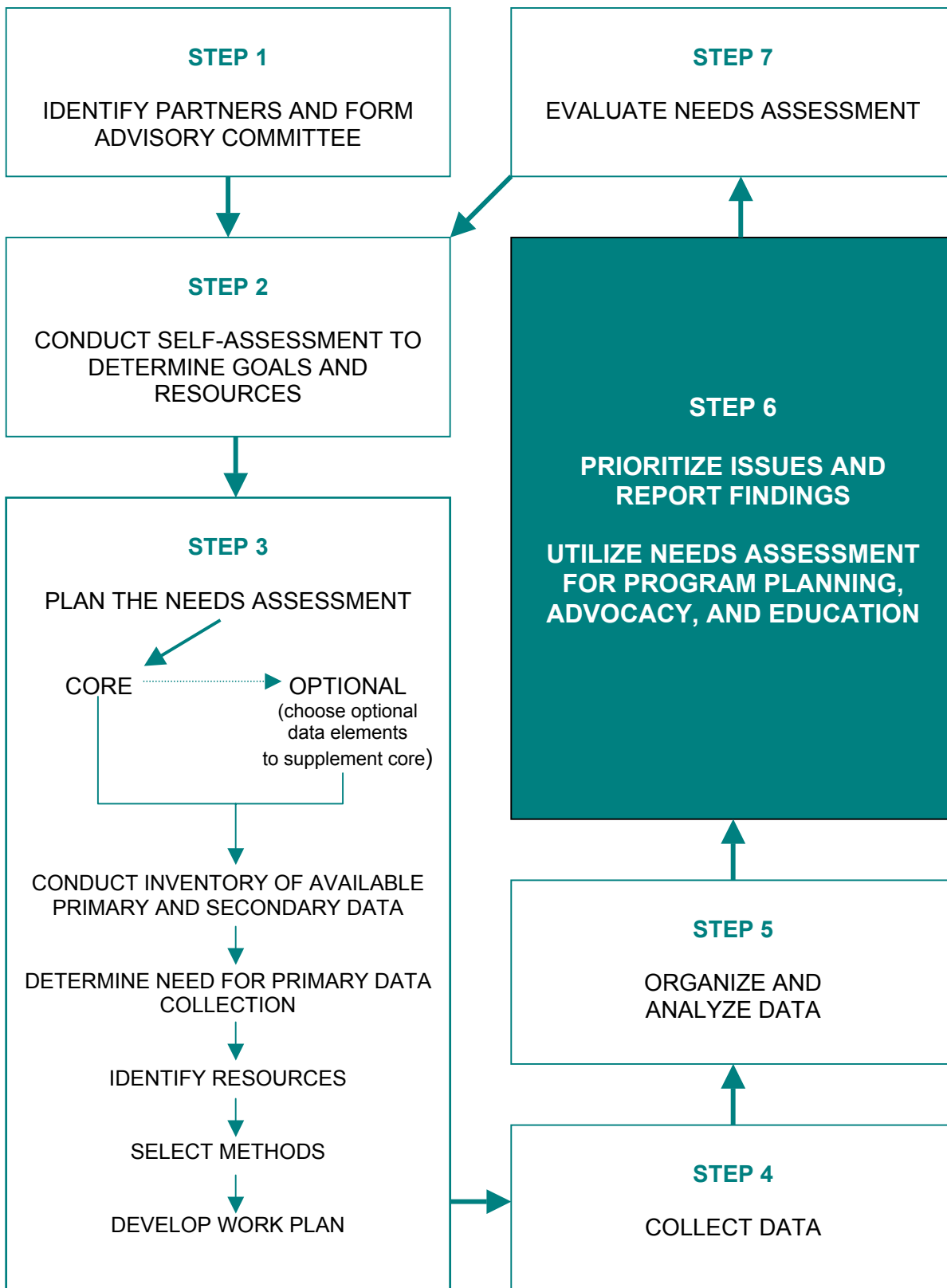


MODEL ORAL HEALTH NEEDS ASSESSMENT



STEP 6: PRIORITIZE ISSUES AND REPORT FINDINGS

After data have been collected and analyzed to identify oral health problem areas (Steps 4 and 5), you are ready to prioritize these problem areas. This will complete the needs assessment phase before transitioning into data reporting. The issues of prioritization and reporting will be addressed separately.

STEP 6-A: PRIORITIZE ISSUES

Prioritization is an integral part of a program planning process. Because most communities have limited available resources, prioritization helps to identify which problems need to be addressed first. A community is more likely to maintain commitment to oral health issues if just a few problems are identified as important.

Prioritization uses an objective, rational approach to identifying those problems that a community can address based on a scientific assessment and recognition of public perception. It is a process that seeks to involve all stakeholders in decision-making.

Prioritizing oral health problems can:

- help oral health programs make decisions about where to target resources based on sound evidence, not anecdotal information, political whims or available funding
- help under-funded and overworked agencies avoid focusing only on the “crisis of the day” created by public, media or legislator perceptions
- assure the rational allocation of resources where most needed
- make health planners more aware of what the public wants or sees as important
- help the public become more aware of the science underlying oral health issues.

WHO TO INVOLVE

Participation helps to ensure commitment. Broad representation of partners identified in

Step 1 (e.g., consumers, service providers, policy-makers) must be involved in the prioritization process. The planning group should reflect the cultural, ethnic, and racial diversity of the community it represents.

There will be a variation of perspectives and individual biases among planning group members. An objective facilitator with strong facilitation skills should guide this process, to manage the discussions and decisions so that persons with strong opinions do not dominate the process. Everyone needs to be heard; all ideas are to be considered. An objective approach helps to ensure that the process is organized, fair and inclusive. The facilitator should help plan the meeting, monitor interpersonal dynamics, and mediate conflicts between members to ensure collaboration.

CHALLENGES TO IMPLEMENTATION

Lack of time, exclusiveness, and diversity are three challenges groups face when implementing a prioritization process. Several meetings may be needed to develop and define the prioritization criteria, vote and reach consensus. Timelines will need to be factored into the overall needs assessment planning. Another challenge to the prioritization process is making sure that all stakeholders are part of the process.

EVALUATING THE PROCESS

As in the evaluation of all seven steps in the ASTDD model, ask questions about the structure, process and outcome of the prioritization process. Specifically, did you accomplish what you had planned? Would you recommend using the same approach next time? What would you do differently?

PRIORITIZATION APPROACH

While there are a number of models and techniques (e.g., charting, ranking, nominal group process) available to prioritize health problems (see resource list) the prioritization approach presented here is adapted from the Health Problems Prioritization Matrix devel-

oped by The Family Health Outcomes Project, Department of Family and Community Medicine, University of California, San Francisco, 1999.

HEALTH PROBLEMS PRIORITIZATION MATRIX

The Health Problems Prioritization Matrix is a framework to objectively score and rank, and thereby prioritize health problems. Steps in this process include (1) selecting criteria; (2) developing scoring criteria; (3) weighting the criteria; (4) reviewing the data; (5) completing the matrix; and (6) arriving at group consensus on a number of health problems from which to develop program interventions.

Selecting Criteria: Selecting criteria beforehand is an important step in having an objective process for prioritization. Since some criteria can be defined in a variety of ways, participants need to agree on definitions. The group should brainstorm and select a set of criteria that each member can apply in prioritizing the identified oral health problems. The goal of the group is to reach consensus on a manageable number (six to eight) of criteria.

While there are a number of ways for a group to reach a decision (e.g., voting, leader deciding, nominal group process) using a consensus approach is the most recommended. It allows the group to discuss and debate the possibilities until everyone reaches agreement. When everyone in the group is part of the solution, they are more likely to support a final decision they helped create. Selecting criteria as a group provides the “ground rules”.

Developing Scoring Criteria: For each criterion a scoring mechanism must be developed. By using scores, the question, “How applicable is the criterion to the problem?” is answered. There are two approaches to applying scores for each criterion.

Approach 1: Criteria apply or don’t apply. Each criterion is given a 0=NO (low) or 1=YES (high)

Approach 2: Criteria are scored using a range of values. If a criterion applies, then it is given a score indicating the degree to which it applies, such as for Trends Increasing:

- 1 = Rapid decrease in past 5 years
- 2 = Moderate/slow decrease in past 5 years
- 3 = No change in past 5 years
- 4 = Moderate/slow increase in past 5 years
- 5 = Rapid increase in past 5 years

Refer to Table 8 for an example of scoring.

Weighting the Criteria: If some of the criteria are considered more important than others by members of the group, assign weights to reflect this importance. For example, the group may feel that a particular criterion (trends increasing) is more important than another (high incidence/prevalence). A range of different weights will also be useful in identifying problem areas. Each criterion should be assigned one of the following weights.

- 1 = important
- 2 = very important
- 3 = most important

The numeric score for each criterion derived (from either Approach 1 or Approach 2) is then multiplied by the weight. Refer to Table 8 for an example of weighting.

Because there is no perfect set of criteria that applies to every situation, each group must develop its own criteria.

Reviewing the Data: Now the group is ready to review oral health data. The data should be presented in a one- to two-page summary in an easy-to-read format. Wherever possible and appropriate, breakdowns by demographic characteristics (e.g., age, race, geographic area) should be presented. Indicate statistical significance where appropriate. Suggested headings to include on the data summary include: (a) name of oral health issue, (b) description & broad look at issue, (c) prevalence, (d) comparison, (e) trend, (f) disparities, (g) perceived needs, (h) expressed needs through service utilization, (i) other per-

inent information, (j) limitations of the data, (k) brief analysis of the significance and recommendation, (l) data sources and contacts, and (m) completed by and date.

Refer to page 137 for a sample blank data summary sheet and page 138 for a completed data sheet. The group should review the data, discuss the significance of any findings, and identify the problems to be considered, and agree on a final set of problem areas to address.

Complete the Matrix: The next step in the prioritization process is to complete the Health Problems Prioritization Matrix using the following steps.

1. Enter the criteria you have identified in the cells across the top “Criterion #1” might be High Incidence/Prevalence, Criterion # 2 might be Trends Increasing, etc.
2. Enter the problem areas, (% children with obvious need for dental care, % children with dental caries) in the cells in the column entitled “Problem.”
3. Enter the weights that have been assigned to each criterion in the cells directly under “C1,” “C2,” “C3,” etc. Let’s assume the group determined that “Trends Increasing” is weighted 3. Therefore enter “3” in the cell directly under “C1.”
4. For a criterion such as “Trends Increasing,” decide to what extent the problem meets the criteria on a scale of 1 to 5.
5. Next multiply the score (1 to 5) by the weight given the criterion (1 to 3) and
6. Write the result in the scoring box. In this example, Trends Increasing = moderate/slow increase in past five years = 4. Multiply 4 x 3 (=12).
7. Under the column entitled “Total,” the weighted scores for the criteria for each problem will be summed.
8. Continue with the other criteria for the problem of dental caries.
9. Add up the scores for each criterion for dental caries. Enter this in “Total Scores.”
10. Complete the same steps for the other problems.

Each individual submits the matrix to the facilitator. Individuals do not rank the total scores at this time.

When all participants have completed the matrix, the facilitator adds up the total scores for each problem and transfers the figures to a new “master” Health Problem Prioritization Matrix. The facilitator ranks the problems based upon their total scores from the group. Those with the highest scores are the highest priority. As an alternative, if the group is large and time is limited, the facilitator may elect to adjourn the meeting for the day. The facilitator will calculate the scores and rank the problems and bring the information to the next meeting.

Discuss Results and Reach Consensus: The group as a whole reviews those problems with the highest scores and reaches consensus on the appropriateness of the list and a reasonable number for which to develop interventions. The quantitative scoring process may create an illusion of pure objectivity in a process that is partially subjective. Therefore, it is wise to review the results of the scoring process and provide opportunity for discussion among panel members to amend the prioritized list by consensus. The group also must decide where to “draw the line” --how many of the priority needs to tackle. The number selected will depend on both financial and staffing resources available from the agencies participating in the planning process. The planning group will focus on these problems in greater detail as it develops its program interventions.

FINAL THOUGHTS ABOUT PRIORITIZATION

The result of this, or any other prioritization process, is based more on art than science. Even though the process quantifies the results it does not mean that this is the absolute correct response. Prioritization is more about the process of bringing together the opinions of a broad representation of stakeholders to agree to act on one or more health problems.

TABLE 7: SAMPLE CRITERIA TO PRIORITIZE ORAL HEALTH PROBLEMS

Criterion 1: Amenable to intervention or intervention proven effective by research. The degree to which a problem is amenable to an intervention and/or an effective intervention exists.

- a. No known effective intervention exists
- b. Promising intervention exists, but it is unclear whether it can be applied to the population in question
- c. Intervention with a proven efficacy exists, but probably cannot be applied to the population in question
- d. Intervention with a proven efficacy exists but it is unclear whether it can be applied to the population in question
- e. Intervention with a proven efficacy exists and can be applied to population in question

Criterion 2: High incidence or prevalence. The level of incidence or prevalence of the health problem.

- a. Low incidence or prevalence
- b. Moderate incidence or prevalence in some subgroups
- c. Moderate incidence or prevalence in all groups
- d. High incidence or prevalence in some subgroups
- e. High incidence or prevalence in all subgroups

Criterion 3: Severity of consequences. The level of severity of consequences of the health problem.

- a. Not life threatening or debilitating to individuals or society
- b. Slightly debilitating to individuals or society
- c. Moderately debilitating to individuals or society
- d. Life threatening or debilitating to individuals or society
- e. Life threatening and debilitating to individuals or society

Criterion 4: Community identified needs or perception of problem. The extent to which the community has identified a need or the existence of the problem.

- a. Not perceived as a health problem; an effort to address would be opposed
- b. Not perceived as a health problem; efforts to address it would be opposed
- c. Recognized as a health problem; any effort to address it would be opposed
- d. Recognized as a health problem; efforts to address it would not be opposed
- e. Recognized as a health problem; efforts to address it would be welcome

Criterion 5: Resources are available. The extent to which resources are available for use in implementing an intervention.

- a. No resources available
- b. Minimal resources available
- c. Moderate level of resources available
- d. Many resources available
- e. Very high level of resources available

Criterion 6: Costliness of treatment. The costliness of treatment.

- a. No cost for treatment
- b. Minimal cost of treatment
- c. Moderate cost of treatment
- d. High cost of treatment
- e. Very high cost of treatment

Criterion 7: Trends Increasing. The extent to which trends are increasing or decreasing

- a. Rapid decrease in past five years
- b. Moderate/slow decrease in past five years
- c. No change in past five years
- d. Moderate/slow increase in past five years
- e. Rapid increase in past five years

TABLE 8: EXAMPLES OF CRITERION SCORING AND WEIGHTING

Criterion Scoring – Approach 1			
Health Problem/Criterion	High Incidence or Prevalence	Trend Increasing	Total
children with caries experience	0	0	0
children with need for dental care	1	0	1

Criterion Scoring – Approach 2			
Health Problem/Criterion	High Incidence or Prevalence	Trends Increasing	Total
children with caries experience	4	3	7
children with need for dental care	4	2	6

Criterion Weighting (Using Scoring Approach 2)			
Health Problem/Criterion (Weight)	Severe Consequences (2)	Trends Increasing (3)	Total
children with caries experience	4 x 2 = 8	2 x 3 = 6	14
children with need for dental care	4 x 2 = 8	3 x 3 = 9	17

SOURCES FOR ADDITIONAL INFORMATION ON PRIORITIZATION

Assessment Protocol for Excellence in Public Health (APEXPH), National Association of County and City Health Officials.
www.naccho.org/project47.cfm

Planning Approach to Community Health (PATCH), Guide for the Local Coordinator, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention.
www.cdc.gov/eval/resources.htm

Public Health Foundation
www.phf.org/Tools-Resources.htm

The Family Health Outcomes Project, Department of Family and Community Medicine, University of California, San Francisco
www.ucsf.edu/fhop/fhopplan.html

STEP 6-B: REPORT FINDINGS

Needs assessment findings are generally used for at least one of three purposes: program planning, program advocacy and education of the public. While the needs assessment findings should play an important role in program planning, it is beyond the scope of this document to detail how they should be incorporated into a formal oral health planning document. An example of a table of contents and an executive summary for a needs assessment report is found in the example section of this manual. Other examples of needs assessment reports are included in the reference section of the *Appendix*. As a basis for program planning, needs assessment reports should identify and measure the extent of needs that could be addressed by the oral health resources of the state or community.

This section will focus on program advocacy and public education. Much of this advice can be effectively used to report key findings to decision makers within your targeted audience(s). If the needs assessment findings can be used to change policy in order to improve oral health, then the venture has been successful.

KNOW YOUR AUDIENCE

It is important to communicate the findings to the target audience(s) such as health department personnel, other professionals, legislators, members of the media or the general public. The information should address issues the audience perceives to be important and be delivered in a timely manner in a form that is easily understood.

Know how to present information to the audience you are trying to reach is crucial. For example, city councils may not be interested in probability sampling or the internal and external validity of the data collected. They are interested, however, in how their constituencies will react. An academic audience, on the other hand, may be very interested in the methods used to collect information. What state leaders may interpret as involvement

and commitment may appear to academicians as biases to the research design.

WHO

Needs assessment findings generally will be reported to both primary and secondary users of the information. **Primary users** will require a detailed description of the methods and findings and a summary of the needs assessment efforts. Some primary users may be the maternal and child health director, a program dental advisory committee, state dental public health employees and decision makers within the health department. Use information for decision makers such as health officers to convince them not only that a problem exists, but that it needs to be acted upon. **Secondary users** are other individuals, groups and organizations that have a vested interest in the results. Some secondary users may be state and local dental, dental hygiene or public health associations, academic health centers, other program staff within the health department, special interest/advocacy groups who represent children with special health care needs and others, and legislators. While it is important to focus on primary users, secondary users often are more powerful allies.

THE MEDIA

The news media, especially the press, is most likely the principal way the general public learns about findings from a needs assessment. Today most media contacts prefer to receive press releases via email or fax. When writing news releases, write clearly, but concisely. Put the most important information at the beginning.

A news release should follow a certain format. Include the date, name, address, email address and home and work phone numbers of a contact person at the top left-hand side of the page. Home telephone numbers are essential if the reporter needs information during non-business hours. The marks ### indicate the end of the news release, not just the bottom of the page. A sample news release is

contained in the example section of this manual.

Foster relationships with media contacts and educate them about oral health programs, issues and the needs assessment activities. Tell them who is served by oral health programs, implications of the needs assessment findings and why this is new information. Many health departments have a staff person who serves as liaison and gatekeeper to the media. Plan time for any required approvals and revisions from this liaison or other administrators.

WHAT

No single report about the oral health needs assessment findings will satisfy all purposes for all audiences. In preparing a report, be sure to give primary users, especially decision makers, the data they need to draw conclusions. If the information is important for program policy and requires decisions by managers, make clear recommendations within the report. Remember, however, that needs assessment is only one step in the planning process. Be selective in identifying which points require immediate action. It may be necessary to postpone specific action until additional parts of the puzzle are collected and interpreted within the bigger picture of the health department. Finally, restate key findings at several points to maximize audience exposure to this information. Choose the best visual format to highlight the most critical findings.

WRITTEN REPORTS

While few primary users will read the entire written report, a technical and detailed report still is necessary and may be a useful reference. Charts and graphs help deliver a clear, precise message. Place an executive summary prior to the report narrative. The summary should highlight major findings, implications and recommendations in a clear, concise way. It should contain graphs highlighting the most important findings. The hypothetical example included with the manual provides

an executive summary. In addition to an executive summary, an abbreviated supplement tailoring key points of particular concern to specific groups may be helpful.

Secondary users should first be given an abbreviated version of the report. If they would like more detailed information, the more detailed version can then be provided.

Consider using someone with expertise in graphic design to format the cover and text and any charts or graphs that will appear throughout the document. A professional appearance is important.

A well written needs assessment report can be modified for several purposes, including the Maternal and Child Health Block Grant application. Such a document will place the dental program in a more advantageous position for inclusion of both successful and problematic program activities. If your dental program's budget is primarily from MCH funds, then you should consider the most current federal MCH guidelines when writing your needs assessment report.

The implications of findings from the oral health needs assessment must be clearly stated. If the study was conducted to highlight a decision or problem, the findings should be directly tied to that decision or problem. List a question that was to be addressed in the needs assessment process, and then under that question summarize the findings that correspond with it. For example, if primary data collection efforts show that occlusal caries is a problem for children, recommend initiating a dental sealant program to lessen the problem. A more traditional format in the development of a long-range program plan is to simply state what the findings mean in terms of what actions should follow, what policy decisions should be made, or the likelihood of various alternatives.

The credibility of the document is particularly important when findings are controversial. To enhance the document's credibility, an extensive methods section should be provided as

an appendix to clearly describe the steps taken in conducting the assessment. This is especially true for oral health programs that collect primary data for the needs assessment. For example, a flow chart showing the steps of the oral health needs assessment, similar to the one in this manual, could be included. Any unusual techniques employed should be amply justified. For example, if the categories of fluorosis are defined differently than specified in the dental literature, the reason behind this must be explained. The methods used should be able to be replicated.

Begin each chapter, subsection and paragraph with the most important point. Highlight key phrases and statements.

Use active verbs whenever possible. They strengthen the importance of the findings. Write clearly and concisely using non-technical words. If technical terms are unavoidable, explain them in simple language.

To keep members of the dental, dental hygiene or public health association abreast of the activities of the health department, talk with the editors of the association's journal, (if there is one), about submitting a manuscript summarizing the needs assessment findings. Other publication options include the agency or association newsletters, publications disseminated to local health departments and national audiences (e.g., MMWR, Journal of Public Health Dentistry).

ORAL PRESENTATION

If you give an oral presentation about the needs assessments findings, tell your audience only what it needs to know. Restate the most important findings at least twice during the presentation. Use slides, overhead projections or computerized presentations with handouts to maintain audience interest.

Whatever visual media is used should be large enough so the most distant person in the audience can read it easily, and the message should be clear and concise. Too much

information on any one slide causes the audience to lose interest.

People learn and remember best when they are active participants in the learning process. Therefore some form of audience participation such as having an active question and answer period should be considered.

WHEN

Ideally, needs assessment results should be announced as soon as the process is complete and approved by administrative sponsors. Since needs assessment is an ongoing process, considerations such as annual department prioritization of projects or a bill introduced in the legislature should be kept in mind when deciding the date of release for the report. For example, in state health departments it may be a good idea to release findings to coincide with the development of objectives for the next cycle of the Maternal and Child Health Block Grant application. For local health departments it may be appropriate to release the information when the department's budget is coming under review. If the information is released to coincide with a deadline for an application or budget, prepare summary sheets that can be incorporated into the document. The release of needs assessment data may be your only window of opportunity to point out the oral needs of various segments of the population. Have your program planning ideas ready upon release of the data. However, don't postpone communicating your findings until all of the oral health needs assessment data have been collected and analyzed. Significant trends in preliminary findings can be communicated to users before a final report is completed. Effective reporting and communication must be ongoing, from the initial planning to the completion of this round of needs assessment.

Whatever information has been collected should be catalogued for historical trends. A written account of all the activities should be maintained to orient new staff and to use for subsequent needs assessments.

HEALTH PROBLEM PRIORITIZATION MATRIX REVIEWING THE DATA – SAMPLE ORAL HEALTH DATA SUMMARY SHEET

ORAL HEALTH ISSUE: _____

Description and broad look at issue: (include public health significance of issue)

Prevalence: (describe prevalence of oral health problem among population of interest)

Comparison: (compare with local, state, national data or other benchmarks where applicable)

Trend: (indicate if disease prevalence is increasing, decreasing, or staying the same)

Disparities: (include race, sex, age, geographic, economic)

Perceived needs: (include data from community surveys, key informant surveys, focus groups)

Expressed needs: (using service utilization data)

Other pertinent information:

Limitations of the data: (sample vs. population)

Brief analysis of the significance and recommendation: (“should we worry or not”)

Data sources and contacts:

Completed by and date:

HEALTH PROBLEM PRIORITIZATION MATRIX

REVIEWING THE DATA – SAMPLE ORAL HEALTH DATA SUMMARY SHEET

EXAMPLE

Oral Health Issue: Third graders with untreated dental caries

Description & Broad Look at Issue: Untreated caries can result in needless pain and suffering, difficulty speaking and chewing, and increased cost of care. Dental caries afflicts more persons than any other single disease in the United States and is amenable to early intervention. In Samplestate, 75% of tooth decay is found in only 17% of the children. To some extent, this measure indicates how much children are benefiting from prevention (fluorides and sealants), but mostly it measures the degree to which they are receiving needed dental care.

Prevalence: In Samplestate, 26% of third graders have untreated caries; higher than the HP 2010 objective for 6-8 year-olds of 21%.

Comparison: The prevalence of untreated decay in Samplestate (26%) is similar to the prevalence of untreated decay in U.S. children between 6-8 years of age (29%).

Trend: The oral health of Samplestate's children is improving. The percentage of third graders with untreated dental care has decreased from 31% (92-93) to 26% (98-99).

Disparities:

Race: 25% of white children and 29% of black children in 3rd grade have untreated dental caries

Geographic: approximately 35% of children in rural counties have untreated dental caries vs. 21-22% in other areas

Family Income: the most dramatic disparity exists between students who participate in the free and reduced-cost school meal (FRM) program and those who do not: 34% of third graders enrolled in the FRM have untreated dental caries, compared to only 17% of third graders not enrolled in the program.

Perceived Needs:

Consumers: Parents of nearly one out of every five 3rd grade students (19%) screened indicated that their children did not get the dental care they needed in the last 12 months.

Samplestate Family Health Survey: Do not have data for 3rd graders; however, dental was the number one unmet health care need for children up to 18 years of age.

Household Survey: Three out of every ten Samplestate adults did not see a dentist in the past year.

Focus Groups: Parents of both the 0-3 and 4-14 year olds identified access to dental care as a significant health issue.

Key Informant Surveys: Legislators, Cabinet, Administration, Health Commissioners, Public Health Providers identified access to dental care as a health issue in Samplestate.

Expressed Needs through Service Utilization: 56% of safety net dental care programs have waiting lists to get initial appointments. Waits are typically 1-3 months, but some exceed 6 months.

Other Pertinent Information: Survey of school nurses in Samplestate's highest risk schools estimated that only 50% of the students referred for treatment actually received the needed den-

tal care. They cited 1) families lack of money/insurance to pay for dental care and 2) dental care being a low priority for the families as the most important barriers to the children receiving needed care.

Limitations of the data (sample vs. population): The data were based on a sample of more than 11,000 3rd grade students. The limitations of these data reflect those of the sampling process and requirements for parental consent. Owing, in part, to the large sample size, the state level data generally yielded tight 95% confidence intervals.

Brief analysis of the significance and recommendation (“should we worry or not”): Unless stopped by dental treatment or early reversal, the carious infection will continue to destroy the tooth, resulting in pain and acute infection. While the prevalence of untreated cavities in Samplestate is less than the national average, we have not reached the national objective of 20%. More important though, is the unacceptability of one out of every four children in Samplestate having an obvious need for dental care. Samplestate data have shown that 75% of tooth decay is concentrated in only 17% of children (primarily those of minority groups, low-income and lower education families). The fact that children enrolled in the FRMOP are twice as likely to have an obvious need for dental care as children not enrolled in these programs points to the disparity that exists for lower income families and rural residents. Targeting these groups for prevention and treatment programs will significantly reduce the prevalence of untreated dental caries.

Data Sources & Contacts:

Samplestate Health Survey, Samplestate Department of Health, Bureau of Oral Health, 1999.
Family Health Survey, Samplestate Department of Health
Survey of Dental Safety Net Programs, Samplestate Department of Health
Key Informant and Focus Groups, Samplestate Department of Health
NHANES III
Child and Family Health Service Needs Assessment, Samplestate Department of Health

Completed by: _____ Date: _____

HEALTH PROBLEM PRIORITIZATION MATRIX SAMPLE

Criterion 1:			Criterion 4:				
Criterion 2:			Criterion 5:				
Criterion 3:			Criterion 6:				
Problem	<u>Prioritization Criteria:</u> In the line below C1, C2, etc. record weights as appropriate. Multiply weight by score for each problem and all criteria.						Total Scores
	C1 ()	C2 ()	C3 ()	C4 ()	C5 ()	C6 ()	