IMPROVING ORAL HEALTH FOR MOTHERS AND CHILDREN: ORAL HEALTH PRIORITIES AND SURVEILLANCE IN STATE MCH TITLE V AGENCIES

Prepared by
Victoria A. Freeman, RN, DrPH
Child Health Services Program
Cecil G. Sheps Center for Health Services Research
University of North Carolina at Chapel Hill

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EXECUTIVE SUMMARY

Oral health is a vital component of good health. Access to dental care as well as other essential components of good oral health such as personal oral hygiene and access to adequate nutrition are important in ensuring that children and adults achieve and maintain good oral health. State Title V Maternal and Child Health (MCH) agencies have long recognized the importance of oral health and supported programs to improve oral health for children and mothers including improving the availability of oral health services.

In this paper, the importance of oral health in the mission of State MCH agencies is explored by examining State priority needs. The ability to measure success in meeting these oral health goals is also assessed in a description of measures of performance and capacity, i.e., National Performance Measure (NPM) #9 which assesses the use of sealants by children in third grade and Health System Capacity Indicator (HSCI) #7b which measures use of dental care by children insured by Medicaid. In addition, MCHB has funded several oral health initiatives in the past seven years. In the final section of this report, how States have targeted these grant dollars to support oral health surveillance is catalogued.

The discussion of oral health issues in this report was informed by review of the many public documents submitted by the States and Jurisdictions and descriptions from recent oral health discretionary grant programs. For simplicity, future references to the States include all 59 Title V grantees, whether they are State or Jurisdictional grantees. It is also important to note that the terms oral health and dental health are often used interchangeably although oral health is a more comprehensive term as it encompasses more than the health of the teeth.

MCH Oral Health Priorities

A comprehensive review of State priority needs and the changes in those needs from 2000 to 2005, found that almost 60% of all 59 States and Jurisdictions (34 in 2000, 35 in 2005) identified oral health or oral health care as a priority. States were more likely to frame their priority need in terms of access to oral health care rather than in terms of oral health improvement.

Access to Oral Health Care Services

- Almost two-thirds of States with a priority need to improve oral health (n=22 or one-third of <u>all</u> States) identified their priority as access to oral health care.

- The focus for ten states was access for all MCH populations. For eight states, the focus was specifically on children.

- Seven States included more specific target populations, including Children with Special Health Care Needs, pregnant or low-income women, and disproportionately affected populations.

- One State included a broad goal of improved access to oral health care for all citizens of the State.

Improvement in Oral Health

- Fewer States (n=13 or 22% of all States) broadly state oral health to be a priority need.

- Just over one-half of States seek to improve the oral health of children; others target all MCH populations or specific populations such as pregnant women and CSHCN.

- A definition of oral health, e.g., reduction of dental caries, is not specified.

National MCH Oral Health Measures

The two performance measures or indicators for oral health that are required reporting for all Title V grantees both address access to oral health care. The first reports the proportion of all third grade children who have sealants and the second reports the percent of children eligible for the Early and Periodic Screening, Diagnosis and Treatment (EPSDT) program who receive any dental service.

National Performance Measure #9: Percent of third grade children who have received protective sealants on at least one permanent molar tooth.

Because there is no national data source on children's oral health that includes information on sealants among third graders, the grant guidance specifically advises that reporting this measure "…requires primary data collection, such as examination or screening of a representative sample of school children." Some States provide detailed information regarding measurement while many are more cursory in their descriptions of the data they use for this measure. The following summary of data availability is likely not a comprehensive picture of State oral health reporting and associated challenges since State documents often provide only limited technical information, focusing instead on description of programs and policies to improve health. However, important trends and challenges are evident from the review.

The best way to determine if a child has sealants on molars is by direct observation of the child's teeth. In the absence of resources to do a representative population-based observational study, some States use other methods to determine sealant use including program or claims data and parent report.

Measuring Sealant Use by Direct Observation

- The majority of States (n=46) reported using observational data to measure sealants for third-grade children. Third graders are the population most likely to be screened for sealants although some States also include first and/or second graders.

- Only two States report data from an *annual* statewide assessment of sealants. A few States supplement their statewide assessments with subpopulation assessments in others years.

- Other States do assessments on a less frequent but regular basis, for example, every five years in conjunction with the needs assessment process.

- More than one State mentioned that an observational study was planned for the future; some noted that a planned observational study was not carried out due to budget issues.

- As they collect their dental sealant data, some States are now measuring children's height and weight to assess obesity.

- Overall, thirty-seven (37) States have submitted sealant data to the National Oral Health Surveillance System (NOHSS), a collaborative project of the Centers for Disease Control and Prevention (CDC) Division of Oral Health, and the Association of State and Territorial Dental Directors (ASTDD).

Measuring Sealant Use by Program Data or Claims Data

- Clinic data or data from school sealant programs is used by six States or Jurisdictions to report on this measure. Use of this data source is particularly common among the Jurisdictions.

- Medicaid claims are a source of data for this NPM in four States.

Measuring Sealant Use by Parent Report

- Two States report that their sealant data comes from parent questionnaire, i.e., self-reported but not verified use of sealants.

Health Service Capacity Indicator #7b: The percent of EPSDT eligible children aged 6 through 9 years who have received any dental services during the year.

For the most part, States do not note difficulty in reporting on this indicator. Many States report specifically that they use the recommended data source (Health Care Financing Administration [HCFA] Form 416 or the Annual EPSDT Participation Report); others report that the data come from their State Medicaid agency or

Medicaid data center. Despite availability of a regular comparable national data source, a handful of States report problems obtaining the data to report for this indicator including inability to obtain data for the specific age group, for dental services specifically, or for all EPSDT-eligible children in the State.

State MCH Oral Health Performance Measures

Some States have determined that improvement in oral health is a high priority for their State and have developed State Performance Measures (SPMs) to further gauge their progress in addressing this need. One-half of all States (n=29) have a State Performance Measure for oral health in their most recent reporting year. Most of these States measure access to dental care while a few measure oral disease. Most States target children but a few target women.

- Access to dental care is the most common focus of SPMs for oral health. Eighty percent (80%) of States with an oral health SPM have framed their measure in terms of access to oral health care with a focus on different types of care and different populations. The type of care ranges from general to specific and includes access to sealants and fluoridated water or fluoride supplements. Two States address their oral health care access needs by focusing on increasing the number of oral health care providers.

- Decreasing oral disease, most commonly caries, is the focus for six States.

- Three-quarters of States with oral health SPMs (n=22) target children in the oral health programs that are measured by their SPMs.

- Two States have identified oral health care for pregnant women as a focus in their State and another has targeted women of reproductive age who are covered by Medicaid.

- Data to measure State Performance Measures comes primarily from standard Medicaid reports (HCFA Form 416) or from Medicaid claims data, since many of the SPMs address the needs of Medicaid beneficiaries.

State Oral Health Surveillance Activities under MCHB-Funded Oral Health Initiatives

State Oral Health Collaborative Systems (SOHCS) Grants – 2003-2004. Nine of 47 one-year SOHCS grantees (20%) included listed activities to improve oral health surveillance in their grant plans, using SOHCS dollars for their third-grade sealant surveillance or surveillance among other populations such as Head Start. Four of the nine grantees described efforts to develop a sustainable surveillance system.

State Oral Health Collaborative Systems Grants – 2004-2007. Fifteen of 47 (32%) three-year grantees planned to use grant funds to conduct a survey or establish a surveillance system. In most cases, establishing or refining a system was the goal. Overall, 20 States funded under this SOHCS grant mechanism included oral health surveillance as part of the work they would do with these grant funds.

Targeted Oral Health Service Systems (TOHSS) – 2007-2011. In addition to promoting their dental home initiative, one State included a surveillance component in its TOHSS grant and two other States indicated in their Application/Annual Report that they will use TOHSS dollars to improve oral health surveillance.

Discussion

The majority of the 59 States and Jurisdictions have identified oral health and health care as a priority need and States have overwhelmingly focused on access to care to address oral health. This support for improved health care access is underscored by the specific and well-known need to improve access for low-income populations.

Measuring success in meeting the oral health care needs of MCH populations provides good examples of the value of national reporting and the challenges when no national dataset exists. The reporting requirements that accompany the provision of Medicaid dollars ensure a consistent measure of many services received by Medicaid beneficiaries as reported in HCFA Form 412. There is no comparable annual reporting structure for all children and mothers regardless of insurance status.

The NOHSS was developed to address this lack of a representative single national data collection program to assess comprehensive oral health issues across the lifespan and it provides a de facto national picture of many oral health indicators. States have demonstrated an awareness of the importance of observational, open-mouth survey data and they are willing to collect these data but resources sometimes limit their ability to collect data every year as observational studies are labor intensive. Most States collect data from periodic observational studies of children, however, and 37 States have contributed data to the NOHSS. States have also demonstrated a commitment to oral health surveillance in the use of MCH-funded oral health grant dollars. The availability of ATSDD-developed survey techniques that are readily available supports the consistent collection of oral health surveillance data regardless of the ability of most States to collect this information on an annual basis.

If States do not have the resources to do an annual or even biennial assessment, sentinel school surveys and subpopulation surveys are an alternative to monitor oral health and more accurately assess progress in years when statewide assessment is not feasible. Similarly, adding other information such as height and weight to the oral health assessment is value added to these surveillance efforts.

Summary

State Title V MCH agencies have a longstanding concern for oral health. Their primary oral health focus is on assuring access to care. Measurement is a challenge but States have committed significant resources to surveillance. With the support of the ATSDD, the CDC, and the Maternal and Child Oral Health Resource Center, States are able to meet reporting requirements and are, in many cases, moving toward a more robust and stable oral health surveillance system. Statewide data that can be examined by school, by district or by other characteristics will help target services. In the absence of annual statewide data, States have demonstrated supplemental oral health data collection strategies to assess progress. Observational oral health studies involve a significant financial commitment and the States can increase the value of these surveillance activities by collecting other easy to measure data such as height and weight as part of their oral health surveillance program.

INTRODUCTION

Oral health is a vital component of good health. Access to dental care as well as other essential components of good oral health such as personal oral hygiene and access to adequate nutrition are important in ensuring that children and adults achieve and maintain good oral health. The burden of dental disease includes not just pain and potential infection from dental caries and gum disease. Additional negative effects can include speech impairments, malnutrition resulting from inability to chew, and, not least, the effect on self-image for children, adolescents, and adults with obvious dental disease.

State Title V Maternal and Child Health (MCH) agencies have long recognized the importance of oral health and supported programs to improve oral health for children including improving the availability of oral health services. More recently, recognition of the role that oral health may play in premature births, has led to new efforts to ensure good oral health and access to oral health care for pregnant women. In the multi-agency collaboration that characterizes many MCH program efforts, Title V agencies have worked closely with State Offices of Oral Health.

In their reports, State MCH agencies describe support for oral health along all aspects of the MCH pyramid. Direct health services may include provision of preventive and acute dental care via fixed or mobile clinics. Enabling services often focus on training of providers to apply fluoride varnish or determine the presence of sealants. Population-based services reported by MCH agencies include dental education in the schools. Examples of infrastructure-building activities include recruitment of dentists for underserved areas or populations and participation on a government task force or advisory committee for oral health.

This paper reports on two aspects of State MCH agency commitment to oral health. The importance of oral health in the mission of State MCH agencies is explored by examining State priority needs. The ability to measure success in meeting these goals is also assessed in a description of measures of performance and capacity. Detailed enumeration of the many activities of MCH agencies and their partners to improve oral health is beyond the scope of this focused review.

Each State Title V agency must complete and submit a comprehensive needs assessment every five years. As part of this needs assessment the agency reports seven to ten priority needs that will be the focus of their activities over the next five years. In a previous review of changes in priority needs from 2000 to 2005, oral health remained a priority for a majority of States. In this report, the populations targeted and specific needs identified will be described.

As part of the landmark performance measurement system that was established by the Federal Maternal and Child Health Bureau (MCHB) in 1997, States report on two indicators of dental health. National Performance Measure (NPM) #9 reports the percent of third grade children who have received protective sealants on at

least one permanent molar tooth. This required performance measure addresses preventive oral health care needs for all children.

The second required indicator of State performance is Health Service Capacity Indicator (HSCI) #7b that addresses the dental care needs of low-income children, specifically requiring that States report on the percent of children aged 6 through 9 years who are eligible for the Early and Periodic Screening, Detection, and Treatment (EPSDT) program and who have received any dental services during the year.

States also identify needs specific to their populations and health care systems and develop State Performance Measures (SPMs) to assess their progress in addressing these needs.

The second and third parts of this report focus on these three indicators of performance. Data that are available for measuring progress and challenges to collecting data are described for the two required indicators. State Performance Measures for oral health are described in regard to the problems and populations they address and also the ways that States are measuring their progress on these State-specific indicators.

MCHB has funded several oral health initiatives in the past seven years. In the final section of this report, illustrations of how States have targeted grant dollars to support oral health surveillance are catalogued.

REVIEW OF STATE REPORTS AND OTHER PUBLIC DOCUMENTS

The discussion of oral health issues in this report was informed by review of the many public documents submitted by the States and Jurisdictions. The section on priority needs comes from the Needs Assessment documents submitted by States and Jurisdictions and from the priority needs that are listed on Form 14, which is also required.

Every year MCH Title V grantees submit an annual report for the previous year and application for the coming year. The sections describing NPM #9, HCSI #7b, and SPMs addressing oral health in the 2007 Application/2005 Annual Report and 2010 Application/2008 Annual Report for all States and Jurisdictions were reviewed. Interim year reports were also available for review for most States.

Information was abstracted from each annual report/application paying particular attention to the sources of data for measurement of indicators and barriers to measurement described by the States. Reports were reviewed for the 59 States and Jurisdictions. The abstracts for discretionary oral health grants were reviewed to determine the focus of activities for each grantee, looking specifically for references to oral health surveillance.

For simplicity, future references to the States include all 59 grantees, whether they are State or Jurisdictional grantees. It is also important to note that the terms oral health and dental health are often used interchangeably although oral health is a more comprehensive term as it encompasses more than the health of the teeth. For children, however, oral health problems are more likely to be dental problems and State reports frequently use the term dental health.

SECTION I: REVIEW OF ORAL HEALTH PRIORITIES

State Title V MCH grantees conduct a comprehensive needs assessment every five years to assess their progress in meeting the needs of MCH populations and to chart their course for the next five years. This process provides the opportunity to realign priorities in light of progress, community and provider input, and recognition of emerging needs.

A comprehensive review of State priority needs and the changes in those needs from 2000 to 2005, found that almost 60% of the 59 States and Jurisdictions (34 in 2000, 35 in 2005) identified oral health or oral health care as a priority.[1] As was true with many priority needs, the focus and wording of the needs statement often mirrored the focus of the agency. Some States focused on the health outcome, e.g., reduced dental caries, while others focused on the process to reach that improvement in outcome, e.g., access to essential oral health services.

For priority needs addressing oral health, States were more likely to frame their priority need in terms of process, i.e., access to oral health care, than they were to frame their need in terms of oral health improvement. Iowa provides an example of the former in their priority need to "Assure access to oral health care for children in Iowa". Wisconsin provides an example of the latter - "Assure dental health for all children". Both areas of focus are described in more detail.

Access to Oral Health Care

- Almost two-thirds of States with a priority need to improve oral health (n=22 or one-third of <u>all</u> States) identified access to oral health care as their priority.
- Access to oral health care for all MCH populations was the focus for ten States.[2]
- Access to oral health care for children was the focus for eight States.[3]

[1] Freeman VA and Guild PA. Meeting state MCH needs: A summary of state priorities and performance measures. Report submitted to the Maternal and Children Health Bureau, Health Resources and Services Administration, US Department of Health and Human Services, January 31, 2008.
[2] CA, IN, ME, MT, NV, OH, TX, UT, VA, WY
[3] AL, AS, IA, KY, MH, MS, OK, VT

- Seven States included more specific target populations, such as:

  - Pregnant women or low-income women – three States (ID, OK. ND)
  - Children with Special Health Care Needs (CSHCN) – two States (AS, MN)
  - Disproportionately affected populations, i.e., disparity reduction – one State (CA)

- One State (OR) included a broad goal of improved access to preventive oral health services (water fluoridation) for all citizens of the State.

Improvement in Oral Health

- Fewer States (n=13 or 22% of all States) broadly state oral health to be a priority need.

- Targeted populations were similar to those identified in priority needs for oral health care improvement. Just over one-half of States seek to improve the oral health of children; others target all MCH populations or target specific subpopulations such as pregnant women and CSHCN.

- The definition of oral health, e.g., reduction of dental caries, is not specified in these priority need statements.

SECTION II: REVIEW OF NATIONAL ORAL HEALTH MEASURES

There are two performance measures or indicators for oral health that are required reporting for all Title V grantees. Both address access to oral health care. One addresses the overall oral health care needs of low-income children while the other addresses specific preventive measures for all children. As is the case for all performance measures and indicators, detailed guidance is provided by MCHB to the States to ensure, as much as possible, consistent and comparable reporting of data.

National Performance Measure #9: Percent of third grade children who have received protective sealants on at least one permanent molar tooth.

Again, Title V Block Grant Guidance provides instructions to grantees for reporting on this measure. The measure is calculated by dividing the numerator (number of third grade children with a protective sealant) by the denominator (number of third grade children in the State).

Because there is no national data source on children's oral health that includes information on sealants among third graders, the grant guidance specifically advises that reporting this measure "…requires primary data collection, such as examination or screening of a representative sample of school children." Detailed

examination of the data that States are using to report on this measure highlights the availability of appropriate data and the challenges faced by States in consistently reporting on NPM #9.

Review of multiple years of Application/Annual Report information for Title V grantees as described above provides insight into how States are measuring their performance for this preventive oral health measure. Some States provide detailed information regarding measurement while many are more cursory in their descriptions of the data. The following summary of the availability of data is likely not a comprehensive picture of State oral health reporting and associated challenges. In their reports, States often provide only limited technical information, focusing instead on description of programs and policies to improve health. However, important trends and challenges are evident from the review.

The best way to determine if a child has sealants on molars is by direct observation of the child's teeth. The Association of State and Territorial Dental Directors (ASTDD) has developed an observation-based screening process for States to use. This process can also include collection of parent-reported information about oral health problems and access to oral health care. Guidelines for this survey, known as the "Basic Screening Survey", include both written and video instructional materials, all available from ASTDD.[4] In the absence of resources to do a representative population-based observational study, some States use other methods to determine sealant use.

Measuring Sealant Use by Direct Observation

- The majority of States (n=46) reported **using observational data** to measure sealants for third-grade children, some specifically noting that they use the Basic Screening Survey. This information was included in the notes for NPM #9 and appeared in the notes for one or more Annual Reports during the reporting periods that were reviewed. A table listing the States that <u>currently</u> report data that is based on direct observation is included in Appendix A.

- **Third graders are the population most likely to be screened** for sealants although some States also include first and/or second graders. One State (NC) developed its screening program to assess fifth graders before the national standard for assessment of third graders was established.

- **Some States do assessments on a regular basis**. Of those States that do observational assessments of sealant placement, just less than one-half of them indicated that these assessments are done on a regular basis. Some States with a regularly scheduled assessment do the assessment every five years, e.g., Alabama, Illinois, and Washington, often in conjunction with the needs assessment process. Colorado, South Dakota and other States do assessments every three years. Other States provide no indication of a plan

[4] Information on the ASTDD Basic Screening Survey is available at http://www.astdd.org/index.php?template=surveybss.html.

to regularly conduct an assessment and the assessment years reported appear to be random.

Regularity of assessment was particularly difficult to assess by reviewing State documents. Occasionally States reported that they planned to do an assessment but no report followed in later years (see further discussion below).

- **Only Oklahoma and Iowa report data from an *annual* statewide assessment** of sealants, and Iowa indicated in 2006 that their assessment now will occur every two to three years. A few States, Virginia and Ohio for example, supplement their statewide assessments with subpopulation assessments in others years. Ohio uses sentinel schools to obtain estimates in the years between statewide surveys.[5] Virginia supplements its statewide survey with assessments of specific health districts.

  For the period from 2003 through 2008, most States with data from observational studies reported on only one and, less commonly, two observational studies.

- **More than one State mentioned that an observational study was planned** for the future; some noted that a planned observational study was **not carried out due to budget issues.**

- **As they collect their dental sealant data, some States are now measuring children's height and weight to assess obesity.** Iowa, Georgia, Wyoming and Arizona include these other measurements as part of their oral health screening survey. Arizona is also collecting information on asthma.

- **Thirty-seven (37) States have submitted sealant data to the National Oral Health Surveillance System** (NOHSS)[6], a collaborative project of the Centers for Disease Control and Prevention's Division of Oral Health and the ASTDD.[7] In order to be included in the NOHSS, data submitted by States must meet certain criteria that assure that they are representative of the State's population and have been collected using a standard protocol. NOHSS produces standardized data tables for each State that include whether information was collected on caries experience or on untreated decay as well as on sealants. Data are presented, when applicable, for children in kindergarten, first, second, and third grades.

  The NOHSS database includes State data from 1999 forward. However, the majority of States reporting to this database have reported data for only one

[5] Detty AMR, Siegel MD. Validation of a method for collecting annual, population-based oral health data for the MCH Title V Block Grant. Matern Child Health J 2009;13:349-54.
[6] AL, AR, AZ, CA, CO, CT, DE, GA, ID, IL, IA, KS, KY, ME, MD, MA, MI, MS, MO, MT, NE, NV, NH, NM, NY, ND, OH, OK, OR, PA, RI, SC, SD, UT, VT, WA, WI
[7] See http://apps.nccd.cdc.gov/nohss/IndicatorV.asp?Indicator=1

year and those with more than one year of data have reported two years. States that have submitted data to the NOHSS are listed in Appendix B.

Measuring Sealant Use by Program Data or Claims Data

- **Clinic data or program data** from school sealant programs is used by six States[8] to report on this measure. Use of this data source is particularly common among the Jurisdictions. These data capture information on only those children seen by the program and may overestimate the percent of children with sealants as only those children who are part of the current target population are counted. Significant barriers to school-wide programs such as limited funding and travel challenges have been reported by different Jurisdictions.

- **Medicaid claims** are a source of data for this NPM in four States including Pennsylvania, Florida, West Virginia, and Minnesota. Three of the four states that currently use Medicaid data report that they lack the ability to determine population-based estimates for this measure and are currently exploring options to improve their surveillance capacity. Florida specifically notes that they submit legislation each year to establish a sealant and surveillance system.

Measuring Sealant Use by Parent Report

- Two States (New Jersey and Indiana) report that their sealant data comes from **parent questionnaire**, i.e., self-reported but not verified use of sealants.

Health Service Capacity Indicator #7b: The percent of Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) eligible children aged 6 through 9 years who have received any dental services during the year.

Title V Block Grant Guidance provides instructions to grantees for reporting on this indicator. The indicator is calculated by dividing the numerator (number of EPSDT-eligible children aged 6 through 9 years receiving dental services during the year) by the denominator (number of EPSDT-eligible children aged 6 through 9 years).

Instructions also include a specific data source, i.e., the revised Health Care Financing Administration (HCFA) Form 416, elements 1 and 12a. This form is also known as the "Annual EPSDT Participation Report" and is used to report use of various health care services by EPSDT-eligible children. The form includes overall participation, participation by age groups (including ages 6 through 9), and participation by eligibility categories (medically needy and categorically needy).

For the most part, States do not note difficulty in reporting on this indicator. Many States (n=21) report specifically that they use HCFA Form 416 or the Annual

[8] AS, DC, FM, MH, MP, VI

EPSDT Participation Report for this indicator. Another 21 States report that the data come from their State Medicaid agency or Medicaid data center. Despite occasional annual lags in data availability, the change in the reported value for this indicator from year to year for most States indicates that the data are routinely available for this oral health care access measure and that States are not reporting repeatedly from a data source that is not current, as may be the case with more difficult to measure indicators.

Despite availability of a regular comparable national data source and a straightforward definition, a handful of States report problems obtaining the data to report for this indicator. Problems include inability to obtain the data for the specific age group, for dental services specifically, or for all EPSDT-eligible children in the State. General data system access problems were also reported.

SECTION III: REVIEW OF STATE ORAL HEALTH PERFORMANCE MEASURES

Some States have determined that improvement in oral health is a high priority for their State and have developed State Performance Measures (SPMs) to further gauge their progress in addressing this need. As is seen with State priority needs, SPMs can be specific or general in both the description of the problem to be addressed and the population on which interventions will be focused.

One-half of all States (n=29) currently have a State Performance Measure for oral health. Two States have more than one. All current SPMs addressing oral health are listed in Appendix C.

- **Access to dental care** is by far the most common focus of State Performance Measures for oral health. Eighty percent (80%) of States with an oral health SPM have framed it in terms of access to oral health care with a focus on different types of care and different populations. The type of care ranges from general to specific.

    - Twelve States describe a general performance measure to ensure that their target population receives <u>any</u> dental care.

    - Eight States[9] focus their SPM specifically on preventive care.

    - Three States (FM, MH, OR) cite specific preventive oral health measures as the focus of their SPM, e.g., assuring access to fluoridated water or fluoride drops for infants.

    - Two States (NV, VA) address their oral health care access needs by focusing on increasing the number of oral health care providers.

[9] AS, AZ, GA, MA, MS, ND, OK, TX

- **Decreasing dental disease**, most commonly dental caries, is the focus for six States[10], and one State (Virginia) has framed its disease prevention SPM in terms of reducing emergency department visits for oral health problems.

States address **different populations** in their SPMs to improve oral health and oral health care.

- Three-quarters of States with oral health SPMs (n=22) **target children** in the oral health programs that are measured by their SPMs.

  - The availability of fluoride drops for infants is an oral health care SPM for the Federated States of Micronesia.

  - American Samoa and Oklahoma include an SPM that specifically addresses the need for dental care for CSHCN.

  - Several States (Hawaii, Washington and Ohio) measure dental caries in third graders or, alternatively, in six- to eight-year-olds, the population that is targeted for placement of sealants to prevent caries.

  - Measuring access to oral health care for all children insured by Medicaid expands the information obtained by HSCI #7b for some States. For example, Arizona, Wisconsin and Massachusetts all include toddlers to adolescents in their SPM measuring access to care.

- Two States (Idaho and Kentucky) have identified oral health care for **pregnant women** as a focus in their State and developed SPMs to measure if dental care is received during pregnancy. North Dakota includes an SPM for preventive dental care for all women of reproductive age who are covered by Medicaid.

Data to measure State Performance Measures comes primarily from standard Medicaid reports (HCFA Form 416) or from Medicaid claims data, since many of the SPMs address the needs of Medicaid beneficiaries. Other data sources include periodic surveys of third graders for information on dental caries, Head Start data, and annual surveys of health care for pregnant women.

[10] HI, IL, MO, NH, OH, WA

SECTION IV: ORAL HEALTH SURVEILLANCE ACTIVITIES UNDER MCHB-FUNDED ORAL HEALTH INITIATIVES

Abstracts from three MCHB-funded oral health grant initiatives were reviewed to assess if States were using these dollars to improve their ability to measure the oral health and health care of their populations. State Oral Health Collaborative Systems (SOHCS) grants for 2003-2004 and 2004-2007 have been completed. Targeted Oral Health Services Systems (TOHSS) grant activities are currently underway.

Using information obtained from the Maternal and Child Oral Health Resource Center website[11], SOHCS and TOHSS project abstracts were reviewed to determine which States included a one-time survey or infrastructure building for ongoing oral health surveillance using these specially-focused oral health grant programs.

State Oral Health Collaborative Systems Grants – 2003-2004

Forty-seven (47) project descriptions for 2003-04 SOHCS grants were reviewed and information regarding surveillance activities was abstracted from the project descriptions. A list of SOHCS States with surveillance activities funded by 2003-04 grants is included in Appendix D.

Of the 47 States with abstracts available for review, 9 or 20% of them included activities to improve oral health surveillance in the State. Some grantees specifically used their SOHCS dollars for their third-grade sealant surveillance. Others conducted oral health surveillance among other populations, particularly among children enrolled in Head Start. Four of the nine grantees with activities related to surveillance listed efforts to develop a sustainable surveillance system.

State Oral Health Collaborative Systems Grants – 2004-2007

Forty-seven (47) project descriptions are available for this three-year grant program. A list of States with surveillance activities in the 2004-2007 SOHCS grant cycle is included in Appendix E.

Fifteen of 47 (32%) project descriptions indicated that the State would use grant funds to conduct a survey or establish a surveillance system. In most cases, State plans were focused on establishing or refining an oral health surveillance system. In only a few cases, grant funds used for surveillance were going to a single point-in-time survey.

There were four States funded in both grant cycles that included surveillance infrastructure building activities in both years. Overall, 20 States funded under this

[11] http://www.mchoralhealth.org/Grants/about.html

grant mechanism included oral health surveillance as part of the work they would do with these grant funds.

Targeted Oral Health Service Systems – 2007-2011

Twenty (20) project descriptions are included for this current four-year grant program. Of those, one description includes surveillance activities. As the name implies, these grant dollars are targeted and most states have identified specific populations for whom they hope to improve oral health care and oral health. In addition to promoting their I-Smile Dental Home Initiative, Iowa includes a surveillance component in its TOHSS grant.

Although not included in the TOHSS project descriptions on the Maternal and Child Oral Health Resource Center, two other States indicated in their 2010/2008 Application/Annual Report that they would be using TOHSS dollars to improve oral health surveillance. Delaware will complete an oral health needs assessment and implement oral health surveillance. Kentucky is working to develop, test, and implement a standardized reporting sealant system throughout the State's health departments.

DISCUSSION

Priority Needs

The majority of the 59 States and Jurisdictions have identified oral health and oral health care as a priority need as a result of their consideration of input from public health officials and citizens in their most recent two cycles of needs assessment activities. All MCH populations or children, specifically, are most often the target groups for interventions to address this priority need.

States have overwhelmingly focused on access to care for this health problem. They recognize the value of preventive oral health care in general as well as the value of specific oral health care procedures such as the use of fluoride varnish and sealants to prevent dental caries. Health behavior is important to consider when addressing health problems including oral health, and for some health outcomes States have chosen to focus on behavior, such as reducing obesity through improved nutrition and exercise. States have focused their oral health priority needs on access to health care, although health behaviors such as personal oral hygiene is an important component of good oral health and oral health education may be a valuable strategy. This support for improved access to oral health care is underscored by the acknowledged need for improved access for low-income populations, particularly those covered by Medicaid. Dental access for Medicaid beneficiaries is a well-known and long-standing problem.

Oral Health Surveillance and Performance Measures

Measuring success in meeting the oral health care needs of MCH populations provides good examples of both the value of national reporting and the challenges when no national dataset exists. The reporting requirements that accompany the provision of Medicaid dollars ensure a consistent measure of many services received by Medicaid beneficiaries. For SPMs addressing the needs of Medicaid beneficiaries, the benefit of Medicaid data is obvious. Both the acknowledged need for dental care for all Medicaid beneficiaries plus the availability of data to measure progress makes improving receipt of dental care for this population a logical State Performance Measure for many States.

There is no comparable reporting structure for children and adults who are insured by private companies or who lack dental insurance. The National Survey of Children's Health is conducted every four years and includes questions for parents about their child's dental health and visits to dental providers. This survey includes State level data but does not include the detailed information on children's oral health that is obtained in an observational survey. The Pregnancy Risk Assessment Monitoring System (PRAMS) collects information in the core questionnaire about dental visits by women in the year before they became pregnant. Dental care use during pregnancy is queried in supplemental questions. Not all States participate in PRAMS, and even fewer use the supplemental dental care questions. PRAMS is, however, a valuable source of information for States with SPMs that address the oral health needs of pregnant women.

The NOHSS was developed to address this lack of a representative single national data collection program to assess comprehensive oral health issues across the lifespan and it provides a de facto national picture of many oral health indicators. States have demonstrated an awareness of the importance of observational, open mouth survey oral health data, particularly to identify the prevalence of dental caries and sealants to prevent caries, and States are willing to collect these data, but resources sometimes limit their ability to collect data every year as observational studies are labor intensive. Most States report data from periodic observational studies of children, however, and some that do not currently have access to observational data, have collected it in the past. States have also demonstrated their commitment to oral health surveillance in their use of MCH-funded oral health grant dollars. The availability of ATSDD-developed survey techniques that are readily available to those that want to do a Basic Screening Survey supports the consistent collection of oral health surveillance data regardless of the ability of most States to collect this information on an annual basis.

If States do not have the resources to do an annual or even biennial assessment, sentinel school surveys such as those conducted in Ohio may be a viable alternative to monitor this marker and more accurately assess progress in years when a statewide assessment is not feasible. Similarly, adding other information such as height and weight to the dental care assessment is value added to these

surveillance efforts. This additional data collection must be weighed, however, against the risk of decreased participation when parent consent is required and additional information collected may be viewed as intrusive by some parents.

SUMMARY

State Title V MCH agencies have a longstanding concern for oral health. Their primary oral health focus is on assuring access to care. Measurement is a challenge but States have committed significant resources to surveillance and with the support of the ASTDD, the Centers for Disease Control and Prevention, and the Maternal and Child Oral Health Resource Center, they are able to meet reporting requirements and are, in many cases, moving toward a more robust and stable oral health surveillance system. Statewide data that can be examined by school, by district or by other characteristics will help target services. In the absence of annual statewide data, States have demonstrated supplemental oral health data collection strategies to assess progress. Observational oral health studies involve a significant financial commitment and the States can increase the value of these surveillance activities by collecting other easy to measure data such as height and weight as part of their oral health surveillance program.

APPENDIX A

States Reporting Observational Data
from Representative Third Grade Population Samples for NPM #9
with Most Recent Year

(Data reported for school years are listed for the final year, e.g. 2004-2005 is listed as 2005)

Alabama	2007	
Alaska	2007	Oral Health Survey of Alaskan Third Graders
Arizona*	2003	Arizona School Dental Survey
Arkansas	2004	
California	2006	California Smile Survey
Colorado	2007	Basic Screening Survey
Connecticut	2007	Every Smile Counts
Delaware	2002	
Georgia	2005	Georgia 3rd Grade Oral Health Survey
Hawaii	2003	
Idaho	2005	Idaho State Smile Survey
Illinois*	2004	Basic Screening Survey
Iowa	2008	Third Grade Open Mouth Survey
Kansas	2007	Smiles Across Kansas
Kentucky	2001	Kentucky Children's Oral Health Survey
Louisiana	2008	Bright Smiles for Bright Futures Oral Screening Survey
Maine*	2004	Maine Child Health Survey
Maryland	2006	Oral Health Status of Maryland School Children
Massachusetts	2007	
Michigan*	2005	Count Your Smiles Survey
Mississippi	2005	Basic Screening Survey
Missouri	2005	Missouri Oral Health Survey
Montana	2006	
Nebraska	2005	Nebraska Open Mouth Survey
Nevada*	2006	Third-Grade Oral Health Survey
New Hampshire	2004	Oral Health Survey of Third Grade Children
New Mexico*	2000	
New York	2004	NYS 3rd grade dental survey
North Carolina**	2008	
North Dakota	2005	Basic Screening Survey
Ohio	2005	A Survey of the Oral Health of Ohio Schoolchildren
Oklahoma	2008	Oklahoma Oral Health Needs Assessment
Oregon	2007	Oregon Smile Survey
Puerto Rico	2007	
Rhode Island	2007	Basic Screening Survey
South Carolina	2007	South Carolina Oral Health Needs Assessment
South Dakota	2006	Basic Screening Survey
Tennessee	2008	
Texas	2008	Basic Screening Survey
Utah	2005	Utah Oral Health Survey
Vermont	2003	Keep Smiling Vermont Oral Health Survey
Virginia	Not listed	
Washington	2005	Smile Survey
Wisconsin	2008	Make Your Smile Count
Wyoming	2009	
*reports indicate a more recent survey has been completed or is in progress but data have not yet been reported		
**NC routine collects sealant data on 5th grade children		

APPENDIX B

States Reporting Sealant Data to the National Oral Health Surveillance System with Years of Data Submitted

Alaska 2004-2005 2007-2008	Kentucky 2000-2001	New York 2001-2003
Arizona 1999-2002	Maine 1998-1999	North Dakota 2004-2005
Arkansas 2001-2002	Maryland 2000-2001	Ohio 2004-2005
California 2004-2005	Massachusetts 2002-2003 2006-2007	Oklahoma 2002-2003
Colorado 2003-2004 2006-2007	Michigan 2005-2006	Oregon 2001-2002 2006-2007
Connecticut 2006-2007	Mississippi 2004-2005	Rhode Island 2007-2008
Delaware 2001-2002	Missouri 1999-2000 2004-2005	South Carolina 2001-2002 2007-2008
Georgia 2004-2005	Montana 2005-2006	South Dakota 2002-2003 2005-2006
Idaho 2000-2001	Nebraska 2004-2005	Utah 2000-2001
Illinois 2003-2004	Nevada 2002-2003 2005-2006	Vermont 2002-2003
Iowa 2004-2005 2005-2006	New Hampshire 2000-2001	Washington 1999-2000 2004-2005
Kansas 2003-2004	New Mexico 1999-2000	Wisconsin 2001-2002 2007-2008

*States that indicate that they collect population-based data but whose data do not appear on the NOHSS website include AL, HI, LA, PR, TN, TX, VA, and WY

APPENDIX C

State Performance Measures for Oral Health

Alabama	Of children and youth enrolled in Alabama Medicaid's EPSDT, the percentage who received any dental service in the reporting year (SPM 2)
Arizona	Percent of Medicaid enrollees age 1-18 who received at least one preventive dental service within the last year (SPM 6)
Colorado	Percent of Medicaid eligible children who receive dental services as part of their comprehensive services (SPM 2 - Same as HSC #7b)
Florida	Percentage of low-income children who access dental care (SPM 4)
Georgia	Percent of Medicaid and PeachCare (SCHIP) enrolled children who received preventive oral health services (SPM 4)
Iowa	Percent of Medicaid enrolled children ages 1-5 yrs who receive dental services (SPM 8)
Massachusetts	Percent of children and youth (ages 3 - 18) enrolled in Medicaid who receive preventive dental services annually (SPM 4)
Mississippi	Percent of Medicaid eligible children ages 1-5 reported to have had at least one preventive dental service
Montana	Percent of Medicaid eligible children who receive dental services as part of their comprehensive services (SPM 5)
Oklahoma	Percent of Medicaid eligible children with special health care needs who report receiving routine dental care (SPM 7)
Texas	Percent of Texas Health Steps eligible children provided preventive dental services (SPM 6)
Utah	Percent of children six through nine years of age enrolled in Medicaid receiving a dental visit in the past year (SPM 8 - same as HSCI 7b)
Vermont	Percent of low income children (with Medicaid) who utilize dental services in a year (SPM 8)
Virginia	Percent of low income children (ages 0-5) with dental caries (SPM 5)
Wisconsin	Percent of Medicaid and BadgerCare recipients, ages 3-20, who received any dental service during the reporting year (SPM 2)
American Samoa	Percent of 2, 3, and 4 year old children who are seen in the in the MCH Well Child Clinics who access dental health services (SPM 3)
American Samoa	To increase the percent of children among the children with special needs who are known to the CSN Program who receive an annual dental assessment (SPM 7)
Marshall Islands	Percent of third grade children who have received protective sealants on at least one permanent molar tooth (SPM 7 - same as NPM 9)
Fed States of Micronesia	Percent of infants who received at least six bottles (1bottle/30 days) of fluoride in the first year of life (SPM 9)
Hawaii	Proportion of children aged 6 to 8 years with dental caries experience in their primary and permanent teeth (SPM 5)
Illinois	The prevalence of Early Childhood Caries (ECC) (SPM 4)
New Hampshire	Percent of third grade children screened who had untreated dental decay (SPM 4)
Ohio	Percentage of 3rd grade children with untreated caries (SPM 7)
Washington	Percent of children 6-8 years old with dental caries experience in primary and permanent teeth (SPM 6)
Missouri	The incidence of emergency room visits for diseases of teeth and jaw for children ages under 15 per 1,000 population.
Idaho	Percent of pregnant women who received dental care during pregnancy (SPM 5)
Kentucky	Number of Medicaid covered women who had at least one dental visit during their pregnancy (SPM 11)
North Dakota	Percent of women age 18-44 enrolled in Medicaid who receive preventive dental service (SPM 3)
Nevada	Increase the rate of significant Medicaid dental providers to the Medicaid population of children, youth and pregnant women (SPM 2)
Virginia	The ratio of dentists to population in underserved areas (SPM 6)
Oregon	Percent of Oregonians living in a community where the water system is optimally fluoridated (SPM 7)

APPENDIX D

State Oral Health Collaborative Systems Grants – 2003-2004

State	Surveillance Activity Description
Alaska	"Conduct oral health assessments of third-grade students in elementary schools in Alaska…"
California	"Plan and coordinate a statewide surveillance system using Basic Screening Survey in Kindergarten and 3rd grade."
Colorado	"Screen Head Start children for baseline data….integrate oral health performance measures into the State Oral Health Plan."
Kansas	"Conduct an open mouth survey of 3rd grade children to obtain baseline information…"
Maine	"Conduct a random sample survey of Kindergarten and Grade 3 children and repeat biannually."
Missouri	"Conduct oral health survey of 3rd graders for regional/county specific data and create and sustain an oral health surveillance system for the state."
New Mexico	"Develop a statewide oral health surveillance system concentrating on the Head Start age children and their mothers."
Oklahoma	"With supplemental funding…conduct a state dental needs assessment survey of 3rd graders with special health care needs…"
Rhode Island	"Develop a surveillance infrastructure to design, implement and evaluate oral health surveys of school-aged children."

APPENDIX E

State Oral Health Collaborative Systems Grants – 2004-2007

State	Surveillance Activity Description
Alaska	"… obtain oral health data to establish a state oral health surveillance system…include oral health indicators in maternal and child health performance measures…"
American Samoa	"A basic screening survey will be conducted to assess the need for oral health services for children ages 6 to 12."
Fed States of Micronesia	"…improve oral health surveillance."
Colorado	"…integrate oral health performance measures into emerging health systems for children…"
Kentucky	"…implement a children's oral health surveillance system in Kentucky…"
Maine	"…develop a collaborative system to assess, analyze, and address oral health status and needs in Maine. The project will…integrate an oral health surveillance system…"
Minnesota	"…improve the maternal and child health (MCH) oral health information infrastructure… The project will also develop an ongoing MCH oral health surveillance system…"
Mississippi	"…conduct an oral health survey of children in Mississippi and report the results to the National Oral Health Surveillance System."
Montana	"…(2) coordinate an assessment of the oral health status of third-grade children and establish baseline data for Head Start children…"
New Mexico	"… refine and maintain the oral health surveillance system and to develop additional data sources and indicators…"
Ohio	"…develop an Ohio Oral Health Surveillance System."
Maryland	"…describe dental caries experience...and the presence of dental sealants on permanent molar teeth. This survey will provide a basis for an oral health surveillance system…"
Palau	"…develop surveillance for oral health services and indicators…"
California	"…establish the basis for a statewide surveillance system for kindergarten and third-grade children and to complete an oral health needs assessment for that population. The project will also develop an infrastructure for ongoing surveillance…"
Vermont	"…(4) establish and improve access and analysis to data sets that can provide information on oral health indicators; and (5) develop a targeted oral health data collection and analysis system…"