



Dental Public Health Activities & Practices

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SECTION I: PRACTICE OVERVIEW

Name of the Practice:

Tooth Tutor Dental Access Program

Public Health Functions:

Assurance – Access to Care and Health System Interventions
 Assurance – Building Linkages and Partnership for Interventions

HP 2010 Objectives:

- 21-2 Reduce untreated dental decay in children and adults.
- 21-1 Reduce dental caries experience in children.
- 21-8 Increase sealants in 8 year-olds' first molars and in 14 year-olds' first and second molars.
- 21-10 Increase utilization of oral health system.
- 21-12 Increase preventive dental services for low-income children and adolescents.

State:

Vermont

Region:

Northeast
Region I

Key Words:

Dental access, access to care, dental home, dental treatment, school program

Abstract:

The Vermont Department of Health, Office of Oral Health, has administered the Tooth Tutor Dental Access Program (TTP) since 1997. It was developed for schools with the main goal of linking every child to a dental home. TTP provides a dental hygienist (the Tooth Tutor) to work with each participating school. A Tooth Tutor uses the program curriculum to teach children the value of dental care to total health, identifies a target group of children without a dental home, and works closely with the school nurse, health liaison, classroom teachers, community dentists, and families to provide a dental home for each child in the targeted group. In the 2008/2009 school year, 124 schools (approximately half the total elementary schools in the state) participated in the program with a total of 20,851 students and a target group of 5,409 students without a dental home. At the end of the school year, 93% of all the students in the Tooth Tutor schools (74% of all the students in the target group) had a dental home. Furthermore, TTP has expanded to include establishing dental homes for Head Start (HS) children. Presently, all seven of the state's HS Programs participate in TTP and each HS Program has contracted a Tooth Tutor to assist families to establish dental homes. During 2008/2009, HS children having a dental home increased from 65% at the start of the school year to 94% at the end of the school year.

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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

Through Medicaid's Early Periodic Screening, Diagnosis, and Treatment (EPSDT) Program, Vermont schools have funding, now called the Medicaid Administrative Coding (MAC) funding, to use for health related activities. Many school nurses contacted the Vermont Department of Health, Office of Oral Health (OOH) and wanted to use the money for oral health, one of their top priorities. In response, OOH designed and developed the Tooth Tutor Dental Access Program (TTP) to reflect best practices. TTP was originally modeled after Washington State's ABCD program. Vermont adapted the program to address the needs in its educational and health care systems for access to dental care. TTP would focus and invest resources on the most vulnerable children who do not have a dental home or have not seen a dentist in the past year. These children are likely to have more dental disease and higher unmet dental treatment needs.

TTP began in 1997 as a pilot project in three different regions in Vermont. By 2003, it grew by word of mouth to include about 60 schools. During the school year 2003/2004, the state received a grant from the Robert Wood Johnson Foundation to fund Tooth Tutors (dental hygienists) in schools for three years. Forty more schools were added and most schools continued with the program after the grant funding ended by using MAC funds. In 2009, there were 135 participating schools. TTP then expanded to include Head Start children. One Head Start program participated in 2005. By 2006, each of the seven Head Start programs in the state had its own Tooth Tutor.

Justification of the Practice:

Dental disease is the most chronic disease of childhood, yet it is preventable. Access to dental care is an essential component of prevention of dental disease for children and adults. The 2002/2003 Vermont statewide dental survey showed that for third graders, 45% have experienced tooth decay, 66% have dental sealants on at least one permanent molar tooth, and 16% have untreated tooth decay. The survey confirmed that a small portion of at-risk children bears the burden of dental disease (approximately 80% of tooth decay was found in 25% of the children). Annual TTP data showed that 30% of the children do not have a dental home to access professional dental care. Furthermore, Vermont school nurses consistently reported that oral health and access to dental care for Medicaid enrolled children are pressing issues.

Inputs, Activities, Outputs and Outcomes of the Practice:

Program Administrator

The OOH administers the TTP. Dental hygiene staff (2 FTEs) provide support for the program including identifying dental hygienists interested in becoming Tooth Tutors, and providing training, technical assistance and monitoring. The OOH also provides screening and teaching materials for the program. Furthermore, the OOH offers training each year to the Tooth Tutors. For the past two years, these trainings have been conducted during the Annual Meeting of the Vermont Dental Hygienists' Association.

Program Goal

The Vermont TTP was originally developed for elementary schools with the goal of linking every child in grades K-6 to a dental home. The program defines a dental home as an usual place of care that provides preventive, comprehensive and continuous care in a dental office. In recent years, TTP has expanded to include Head Start programs to establish a dental home for every Head Start child. The program continues to expand to include preschool programs and middle/high schools.

Participation of Schools

There is no special qualification for a school to participate in TTP. Participation is voluntary. Interest in participating is dependent on the school determining the need for dental care access and wanting to improve oral health for the students.

The OOH provides TTP information to the districts' school liaisons at the Health Department, who then present the program to their district's school nurses. Word of mouth has been the best promotion of the program.

Participation of Head Start Programs

Head Start programs advocate for good oral health for their children, but have found dental care access difficult due to the young ages of the children and their method of payment (Medicaid or a state insurance program). TTP is conducted the same for Head Start programs as for elementary schools. However, Tooth Tutors are funded for more hours by Head Start programs to assist the children and families. Head Start parents and staff are also more easily accessible to the Tooth Tutors.

Milestones in the expansion of TTP to include Head Start programs included:

- Champlain Valley Head Start received a small award to employ a Tooth Tutor as part of an RWJ Grant that ended in 2005.
- The HRSA SOHCS Grants were awarded to three Early Head Starts to employ Tooth Tutors ending in 2006.
- Vermont received a grant from the Association of State and Territorial Dental Directors (ASTDD) to conduct an Oral Health Forum in May 2005.
- From that forum, the Vermont Head Start State Collaboration Offices (VHSSCO), the Vermont Head Start Association (VHSA), and the Vermont Department of Health (VDH) developed an Oral Health Action Plan. A Head Start Forum Follow-up grant (\$1,500) was awarded from ASTDD and funded: (1) a continuing education course called "Welcoming the Young Child into your Practice," and (2) a "Lunch and Learn" program – a Tooth Tutor visited 10-12 dental offices during the lunch hour and provided instruction on how to work with young children.
- In 2006, the seven Head Start programs in Vermont received a Bureau of Head Start Oral Health Initiative Grant; the only statewide grant in the country. The funding provided a Tooth Tutor for each Head Start program. The three-year grant ended in November 2009.
- After the grant ended, Head Start programs continued funding the Tooth Tutor program using the American Recovery and Reinvestment Act (ARRA) funds for 2009/2010.
- Two Head Start programs received VDH "Dental Access Grants" for Tooth Tutors to assist linking parents of Head Start children to dental care. These grants also included money to help pay for dental needs above Vermont's current adult Medicaid (MC) cap of \$495.00.
- Vermont was selected by the American Academy of Pediatric Dentistry (AAPD) for a Dental Home Initiative Grant and the State Launch took place in September 2009. An additional grant was received from AAPD to have Tooth Tutors provide "Lunch and Learns" for dental offices to assist the practices to treat young children.

Program's Target Population

All children in participating schools and Head Start programs are served by TTP; the Tooth Tutors provide dental health education to all classes. Children identified without a dental home become the target group for intense efforts to establish a dental home. The target children are identified from the school health histories that ask for the name of their dentist and the date of their last visit.

Program Set-up and Services

TTP helps each participating school and Head Start program to contract a dental hygienist called the "Tooth Tutor." The program provides a list of dental hygienists who are able to serve as program providers to the schools and Head Start programs. This list is developed by OOH through recruiting efforts including information in the VDHA newsletter, word of mouth at meetings, and posting of opportunities on the VDHA website.

Each school or Head Start program selects and contracts a dental hygienist as a Tooth Tutor to implement TTP. For Head Start programs, ARRA funds were used for 2009/2010 to contract Tooth Tutors. For schools, the primary funding for the dental hygienists is from the Medicaid Outreach Program with MAC; schools receive MAC funding from the Vermont Department of Health. A school can decide how they want to spend the MAC money on health activities and the Tooth Tutor Program is one of the options. Occasionally, there will be alternate sources available that schools

can apply to fund Tooth Tutors. For example, Northeast Delta Dental has assisted several schools to start TTP. For each school, a Tooth Tutor's service hours will vary depending on the number of students served and available funding. In general, most Tooth Tutors provide services to a school for one day a week.

The Office of Oral Health provides training, supplies, and technical support for the Tooth Tutors to deliver oral health education and establish dental homes for the children. OOH program administrative staff provides all needed support for TTP, including all materials for dental screenings and teaching. Each year, OOH holds an annual meeting/training for Tooth Tutors, which offers continuing education credit. For the past two years, this meeting/training has been successfully held during the Annual VDHA Meeting and has strengthened the partnership between VDHA and TTP. Three newsletter issues are provided each year to the Tooth Tutors and regular e-mail communications help keep all Tooth Tutors informed and connected.

A Tooth Tutor works closely with the school nurse, health liaison, classroom teachers and community dentists on the following two primary activities.

1. The Tooth Tutor delivers oral health education:
 - Education is provided to all classes in a participating school or Head Start program during the school year using the American Dental Association (ADA) *Smile Smarts* curriculum. Each Tooth Tutor tailors the education appropriately for the age of the children. OOH provides Tooth Tutors with several teaching videos, a mouth model, and a Tooth Tote to carry the materials.
 - Education is provided to the school staff. These workshops help staff understand the Tooth Tutor Program and enlist their support to reach the parents. The workshops emphasize the importance of oral health and the challenges some parents have in obtaining dental care for their children.
 - Oral health literature is distributed to parents. For example, the brochure *Something to Smile About* describes the program and gives a brief overview of preventive services that children can receive in a dental office.

2. The Tooth Tutor assists families to establish a dental home for their children:
 - Assistance is provided in updating dental information in each child's school health file.
 - A target group (children without a dental home) is identified using completed school health history forms.
 - Free dental screenings are provided to the target group upon request.
 - Visits to local dentists are made to explain the program, answer questions about Medicaid, and assure that referrals are from local schools in their community.
 - Families are offered assistance to identify dentists for their children. Support is also provided to help families understand dental care needed by their children, answer questions related to dental appointments and being a dental patient, and address other barriers to dental care.
 - A "take home video" is given to some parents to describe the program and show what will happen at a child dental visit. This video explains that families can get help through the Tooth Tutor (e.g., find a dentist, make an appointment, fill out dental forms, and help with transportation).

More than half of the target children require only preventive care (e.g., dental prophylaxis/cleaning, fluoride treatment and dental sealants) and the rest of the children require additional restorative dental treatment (e.g., fillings and crowns). The Tooth Tutors have been successful in enlisting dentists in the community to accept children into their practices for care.

TTP also links with a state insurance program, called **Dr. Dynasaur**, which provides families in Vermont with medical and dental insurance. Dr. Dynasaur provides health care for children under the age of 18 as well as pregnant women. Eligibility for this insurance is based on family income level and depending on the income level and may require a program fee of up to \$25.00 per month (rate for 2009). The Tooth Tutors refer families to this program and help with enrollment if needed.

Program Partners

Key TTP partners include the Office of Vermont Health Access, Vermont's Head Start programs, the local offices of the Vermont Department of Health, and Northeast Delta Dental. The Vermont State Dental Society and Vermont Dental Hygienists' Association have been supportive of the program.

Program Outputs

For the 2008/2009 school year, 124 schools throughout Vermont participated in the program. Approximately 40 dental hygienists are currently contracted to cover the participating schools with more than 20,000 children in various school districts. The program targeted 5,409 students who did not have a dental home. At the end of the school year, the percentage of all students (grades K-6) in participating schools having a dental home increased from 74% to 93%. For the target group of students only, at the end of the school year, 74% were linked to a dental home. For the new 2009/2010 school year, participating schools have increased to 134 schools. This is more than half of all of Vermont's 250 schools. A few high schools and many preschool programs have been added to TTP.

All of Vermont's seven Head Start Programs are also participating in TTP and each Head Start Program has contracted at least one dental hygienist. During the school year 2008/2009, 443 children out of the 1,248 enrolled Head Start children did not have a dental home at the start of the school year. At the end of the school year, Head Start children having a dental home increased from 65% to 94%.

Program Outcomes

The success of this program has had an impact on the oral health of Vermont children as evidenced by its wide acceptance and number of children linked to a dental home. Schools have moved away from the screening and referral system in favor of a targeted approach where resources are mainly focused on children without a dental home. Fifty percent of Vermont's children with Medicaid Insurance had a dental visit last year.

TTP has built local infrastructure to support families in accessing dental care services. The program has established a process for schools and Head Start programs to target children without dental homes and lack professional dental care, enlisted community dentists to accept the target children into their practices, and leveraged resources from the Medicaid/EPSTDT and a state insurance program to reduce dental access barriers.

The 2002-2003 Keep Smiling Vermont Oral Healthy Survey of children in grades 1-3 statewide (<http://www.healthvermont.gov/pubs/dental/02-03oralhealthsurvey.pdf>) showed the following:

- TTP has reached children with high risk for tooth decay. Tooth Tutor schools have more children from low socioeconomic status families and the children have higher caries experience when compared to non-Tooth Tutor schools. Sealants and regular dental visits have been higher in Tooth Tutor schools, which can be attributed to the efforts of linking children with a dental home.
- In comparing the oral health status children in grades 1-3 from the 1993/1994 survey to the 2002/2003 survey, the percentage of the children who were caries free increased from 51% to 60% and the percentage of children with untreated decay decreased from 20% to 16%. For 8-year-old children with at least one sealant on a permanent molar, the percentage of children increased from 43% to 64%.
- Vermont has exceeded the targets of the Healthy People 2010 objectives to decrease the proportion of 6-8 year olds who have caries experience (target 42%) and have untreated tooth decay (target 21%), and to increase the proportion of 8-year olds who have dental sealants (target 50%).

Budget Estimates and Formulas of the Practice:

- Currently the Office of Oral Health receives funding from General Funds, the Prevention Block Grant and the Maternal & Child Health Block Grant for TTP.
- Compensation for the contracted dental hygienists (serving part-time as Tooth Tutors for the schools and Head Start Programs) is about \$30.00 per hour. Most of the Tooth Tutors' compensation is covered by MAC funds but a few are funded through grants and foundations.

The schools determine how to use their MAC funds and Head Start programs find their own funding mostly through grants (with the Office of Oral Health assistance).

- Approximately \$11,500 is needed each year to reproduce and distribute program materials for all participating schools and Head Start programs (e.g., supplies for screening and education, manuals, forms, letters, training, and technical support).

Lessons Learned and/or Plans for Improvement:

- A significant barrier in accessing care for the program's children who do not have a dental home is the lack of priority placed on routine, preventive care by their parents.
- It has been easier to get dentists to see the children for preventive dental services than emergency and restorative care (approximately half of the TTP participating children need only preventive care). In addition, while school nurses have always tried to get students with emergency dental needs into a dental office, they have not had adequate time to help students who need preventive care only.
- Often, it is the dental offices where the Tooth Tutors work that will accept the program's target children. It has been helpful at times to be able to tell a child and a parent that the Tooth Tutor is the dental hygienist who will see the child at his/her dental appointment.
- Access to care barriers for parents include transportation, literacy, fear, lack of time off from work, and poor experiences with previous dental visits.
- Most areas of Vermont have dentists who will accept Medicaid children.
- TTP oral health education for students, school staff and parents connect them to the program goals and the Tooth Tutors' efforts.

Available Information Resources:

- TTP Information is available on the VDH Website: <http://healthvermont.gov/family/smile/tooth-tutor.aspx>
- Two videos for families of Head Start children or school-aged children describe how a Tooth Tutor will work with families to find a dentist and establish a dental home: <http://healthvermont.gov/family/smile/news-archive.aspx>
- The Tooth Tutor Manual is a resource guide for the dental hygienists to implement the program within schools and Head Start programs. The manual describes the program and its services, contains the TTP protocol, gives letter and form samples, provides information about screenings and infection control and mandated reporting, and offers links to oral health resources. The ADA curriculum *Smile Smarts* is included. The manual will be available online in 2010.
- The 2002-2003 Keep Smiling Vermont Oral Healthy Survey report provides a summary of the survey findings and compare the oral health status of children in Tooth Tutor Schools vs. non-Tooth Tutor schools: <http://www.healthvermont.gov/pubs/dental/02-03oralhealthsurvey.pdf>

SECTION III: PRACTICE EVALUATION INFORMATION

Impact/Effectiveness

How has the practice demonstrated impact, applicability, and benefits to the oral health care and well-being of certain populations or communities (i.e., reference scientific evidence, outcomes of the practice and/or evaluation results)?

The Tooth Tutor Dental Access Program (TTP) began in 1997 and expanded over the years. For the school year 2008/2009, 120 elementary schools and seven Head Start programs participated in the program. The program is reaching half of all elementary schools and all Head Start programs in Vermont. Currently, 40 dental hygienists have been contracted to provide program services throughout the state.

At the end of the school year 2008/2009, the percentage of all students in participating schools having a dental home increased from 74% to 93% and for all Head Start children having a dental home increased from 65% to 94%.

The 2002-2003 Keep Smiling Vermont Oral Healthy Survey of children in grades 1-3 showed improved oral health status compared to 1993/1994. More children are caries free, more children have dental sealants, and fewer children have untreated tooth decay. Vermont has achieved and exceeded the targets of the Healthy People 2010 oral health objectives related to these measures.

Efficiency

How has the practice demonstrated cost and resource efficiency where expenses are appropriate to benefits? How has the practice demonstrated realistic and reasonable staffing and time requirements? Provide unit cost analysis or cost-benefit analysis if appropriate.

TTP pools resources from several programs to link children to dental homes. The program's dental hygienists (Tooth Tutors) are contracted mainly with Medicaid/EPSDT funding. The Department of Health provides training and supplies for the program. Schools provide working space and staff support for the Tooth Tutors. The state insurance program, Dr. Dynasaur, provides insurance coverage for the dental services needed by most of the TTP children.

Demonstrated Sustainability

How has the practice showed sustainable benefits and/or how has the practice been sustainable within populations/communities and between states/territories? What mechanisms have been built into the practice to assure sustainability?

TTP was initiated as a pilot project in 1997 and has grown over the past 13 years. The program has a sustainable source of funding through EPSDT funding for contracting the dental hygienists as Tooth Tutors. It has the commitment of the Vermont Department of Health to continue to provide training, supplies and technical support for the dental hygienists in the program.

Collaboration/Integration

How has the practice built effective partnerships/collaborations among various organizations and integrated oral health with other health projects and issues? What are the traditional, non-traditional, public and private partnerships/collaborations established by the practice for integration, effectiveness, efficiency and sustainability?

TTP receives funding from the Medicaid Outreach Program and links with the Dr. Dynasaur state insurance program to provide dental care for eligible TTP children. Further, the program is a collaborative effort supported by school nurses, community dentists and dental hygienists, and the Vermont Department of Health. One of the most successful partnerships is with all Head Start Programs in Vermont contracting a Tooth Tutor.

Objectives/Rationale

How has the practice addressed HP 2010 objectives, met the National Call to Action to Promote Oral Health, and/or built basic infrastructure and capacity for state/territorial/community oral health programs?

The program aims to improve access to dental care by providing a dental home to school age and Head Start children. This goal addresses Healthy People 2010 oral health objectives in reducing dental caries experience in children, reducing untreated dental decay, increasing utilization of oral health system, and increasing preventive dental services for low income children. The program also addresses disparities described in the Surgeon General's Report on Oral Health and in the National Call to Action to Promote Oral Health.

Extent of Use Among States

Describe the extent of the practice or aspects of the practice used in other states?

In 2000, ASTDD Synopses of State Dental Public Health Programs showed that 24 states reported supporting or implementing an "access to care program." In 2009, the State Synopses showed that 33 states reported having an "access to care program." Vermont's Tooth Tutor Dental Access Program modeled after Washington State's ABCD Program; several other states have also modeled the ABCD Program.