The purpose of this project was to establish and enhance collaborations with community partners and provide oral health training and resources to increase oral health literacy and access to dental services by low-income individuals, especially pregnant women and infants and young children.

The following summarizes for all goals and objectives, project accomplishments, sustainability efforts, the impact of the project on the community and oral health service systems, and lessons learned.

PROJECT EVALUATION

Goal 1: Strengthen the State’s oral health program infrastructure through collaborative activities and programs with relevant State and local programs, agencies, organizations, and key stakeholders to improve the oral health of low income infants and children and their families and reduce oral health disparities.

Objective 1.1: Identify all underserved high need areas for dental services.

Objective 1.2: Prioritize identified areas by level of need and resources and establish contacts with State and community-level programs, agencies, organizations, and key stakeholders to determine their level of interest and capacity for incorporating oral health education and services into their existing programs.

Objective 1.3: Determine effectiveness of interventions and networking in improving access and use of dental services by at risk populations.

Accomplishments:

A variety of data sources was used to identify high need underserved areas in the State, including county and age-level data on Medicaid dental claims, caries prevalence and untreated decay among third grade students, the availability of fluoridated public water supplies, the location of dentist currently practicing in NYS and those active in Medicaid, county-specific poverty statistics and families with children under five living in poverty, and dental health professional shortage areas.

Community-level programs, agencies, organizations, and key stakeholders in high need underserved areas were contacted and extensive outreach conducted to prenatal, pediatric and health education programs throughout the state to share and advance the latest information and recommendations about maternal, infant, and child oral health; caries risk reduction strategies; and recommendations on oral health disease prevention and treatment. Oral health
education and resources, technical assistance, linkages to additional oral health information, resources on finding a dental provider, and information on maternal, infant, and child oral health were routinely provided and low literacy materials, mini-posters, and a wallet card were developed and distributed to prenatal, infant and child health providers for use with their respective patients. These materials were available in both English and Spanish, reinforced the importance of oral health during pregnancy, and included guidelines and information on oral health care for infants and young children.

A wide range of training programs were developed and sponsored for perinatal networks and prenatal providers, child health educators, Head Start/Early Head Start Programs, maternal-infant home visiting programs, the WIC Program, dental hygienists and dental health educators, child abuse prevention programs, child advocacy organizations, rural health organizations, local health department educators, and dental organizations. Information and materials on oral health care for infants and young child, resources for child health care professionals on incorporating oral health care services into well-baby care, and training programs for health professionals on conducting oral health assessments, fluoride varnish applications, caries risk assessments, risk reduction education, and anticipatory guidance were made available on the DOH public website in conjunction with Medicaid reimbursement of fluoride varnish applications.

The collaborations and contacts established under the TOHSS grant also resulted in expanded access to relevant and timely oral health data that are too used for ongoing evaluation activities.

• In collaboration with PRAMS, the Bureau of Dental Health is now receiving all raw data on oral health-related questions and demographic information from annual interviews of postpartum women.
• In collaboration with the statewide WIC Program, the Bureau now has regular access to data on the oral health status of pregnant, post partum, and nursing women, infants and young children.

Products Developed Under the TOHSS Grant:
• Pregnancy and Dental Care/Facts for baby teeth (wallet card)
• Pregnancy and Dental Care (mini poster)
• Baby Teeth are Important (mini poster)
• Information for Consumers: Fluoride Varnish – Frequently Asked Questions
• Improving the Oral Health of Young Children: Fluoride Varnish Training Materials and Oral Health Information for Child Health Care Providers

Impact on the Community and Oral Health Services:
• Inclusion of the power point presentation Addressing Dental Disease in Early Childhood Programs on New York State’s Winning Beginnings website. This power point presentation represents a collaborative effort of the Bureau of Dental Health, the Schuyler Center for
Analysis and Advocacy and the NYS Oral Health Coalition and was developed as a dental health resource for early care and learning professionals, with helpful information about how to spot and refer dental problems in young children. The web site is promoting the presentation as a must-see for all providers and parents.

- The addition of oral health information and resources on the websites of numerous programs participating in TOHSS-sponsored oral health trainings.

- New York State’s 18 Perinatal Networks (85 consortia or other collaboratives, which include over 925 agencies and 2,488 representatives) routinely include among their activities information on the benefits of good oral health, increasing awareness of oral health and facilitating access to dental services.

- Inclusion of New York’s Pregnancy and Dental Care/Facts for baby teeth (wallet card), Pregnancy and Dental Care (mini poster), Baby Teeth are Important (mini poster), and Fluoride Varnish Resource Training Materials on the National Maternal and Child Oral Health Resource Center website.

- Oral health information, materials, resources and updates on oral health care during pregnancy, infancy and early childhood are routinely shared with network members and made available on the Department of Health public website.

- The ongoing provision of training and oral health materials and resources to TOHSS partners and the Perinatal Networks.

**Lessons Learned:**

In order for the success of the project to continue, it is important to maintain regular contacts with individuals and programs participating in oral health education activities. The provision of training cannot be a one-time offering, especially if behavioral change is the ultimate objective. Ongoing communication, routine contacts, periodic distribution of oral health education materials and resources, and the development of additional training programs are all required. Given the economic climate, the use of the internet and web-based training technologies will continue to be the most cost-effective venues for trainings and the provision of resources.

**Goal 2:** Expand access to and increase the utilization of high quality, comprehensive, continuous dental services for Medicaid and S-CHIP beneficiaries and low-income infants under age one and preschool and school-aged children and their families in targeted high need areas of the State through collaborations and partnerships with local programs and providers and the implementation of innovative oral health service models.

**Objective 2.1:** Expand access to primary preventive dental care for infants under one and preschool-aged children being seen for routine well baby care.

**Objective 2.2:** Establish collaborative partnership with community health centers, hospitals, local health departments, child health care provider organizations and early childhood advocacy and education groups to encourage them to incorporate
oral health education and fluoride varnish applications into well baby visits and/or other appropriate program services.

Objective 2.3: Provide technical assistance and support on incorporating oral health education, fluoride varnish applications, and anticipatory guidance into existing services and in developing referral networks for oral health preventive and treatment services.

Accomplishments:

A plan was developed to work with pediatricians and other child health care professionals on incorporating fluoride varnish applications, anticipatory guidance, information on risks for and prevention of ECC, caries risk assessments, primary prevention, and referrals for the establishment of a dental home and/or for needed treatment services into the routine care of infants and children. A close working relationship was developed with the Oral Health Ambassador of the American Academy of Pediatrics and TOHSS and Bureau staff continue to work collaboratively on educating and providing resources to pediatricians and encouraging them to incorporate oral health education and fluoride varnish applications into well baby visits and/or other appropriate program services.

Meetings were held with representatives of pediatric and child health care professional organizations and societies to elicit their support for the inclusion of fluoride varnish, oral health education, anticipatory guidance, caries risk assessments, primary prevention, and the development of referral networks for dental services as a routine standard of well baby care.

The NYS Department of Health Commissioner of Health and Director of the Bureau of Dental Health convened a meeting with a select group of pediatric dentists, pediatricians, prenatal care providers, and public health representatives to discuss opportunities for inter-professional collaborations, changes required in Medicaid and other insurance programs to improve access to care for pregnant women and young children, and ways to measure progress. One of the recommendations emerging from the meeting was the expansion of the Bureau’s previously funded innovative oral health service model of dental health case management.

Technical assistance and training resources were provided to child health care professionals on implementing oral health services, the application of fluoride varnish and establishing referral networks for children needing a dental home and preventive and/or treatment services. All NYS approved Medicaid providers were provided via the Department’s monthly Medicaid newsletter, information and linkages to oral health information and resources on fluoride varnish and available training programs on the DOH public website. Linkages to finding a dental provider for children lacking a dental home or needing dental treatment services were added to the DOH public website (http://www.health.ny.gov/prevention/dental/finding_dental_provider.htm).

Collaborative activities with the statewide WIC Program were expanded to include hosting a series of meetings with key stakeholders to explore incorporating oral health programs at community WIC sites. Key players included State and local level WIC administrators and a neonatal specialist and pediatrician in the Capital District. A pilot project was implemented at
the Albany Medical College WIC Program, with a pediatrician providing oral health screenings, caries risk assessments, fluoride varnish applications, oral health education and anticipatory guidance and referrals for women and children needing a dental home and/or dental treatment services. TOHSS activities related to the training programs provided to the WIC Program at its statewide conferences and the ongoing provision of low literacy oral health materials for use with WIC clients paved the way for the initiation and implementation of this pilot project.

Since the initiation of the WIC Pilot Project, nearly 100 children were seen in the first four months, with 95% of children receiving fluoride varnish treatment. Slightly over 41% of all children screened had active decay, with 37.5% of these children having severe caries requiring immediate intervention and treatment. Arrangements were made for immediate treatment for the severe cases, while referrals were made for all remaining children needing treatment services and/or a dental home.

Information about the pilot project and findings, along with infant and maternal oral health will be presented at the statewide meeting of WIC Program staff scheduled for this spring. A survey of WIC Program staff will also be conducted to ascertain the level of interest in implementing similar projects in other high need areas of the State.

Information and materials on oral health care for infants and young child, resources for child health care professionals on incorporating oral health care services into well-baby care, and training programs for health professionals on conducting oral health assessments, fluoride varnish applications, caries risk assessments, risk reduction education, and anticipatory guidance were made available on the DOH public website in conjunction with Medicaid reimbursement of fluoride varnish applications (http://www.health.ny.gov/prevention/dental/fluoride_varnish_faq.htm and http://www.health.ny.gov/prevention/dental/child_oral_health_fluoride_varnish_for_hcp.htm). TOHSS project and Bureau staff also worked collaboratively with the New York City Department of Health and Mental Hygiene on the development of its early childhood oral health and fluoride varnish brochure for primary health care providers (http://www.nyc.gov/html/doh/downloads/pdf/hca/hca-fluoride-varnish.pdf). This brochure promotes the inclusion of periodic oral health examinations as part of routine pediatric visits and refers NYC pediatric health care providers to the NYS website for resources on infant oral health and online training in the application of fluoride varnish.

**Impact on the Community and Oral Health Services:**

Working with the Oral Health Ambassador of the American Academy of Pediatrics, the New York City Department of Health and Mental Hygiene, members of the New York State Oral Health Coalition, and the network of community partners and key stakeholders established under the TOHSS grant, significant education and technical assistance were provided, resulting in an increased level of awareness of the importance of infant oral health and dental visits by age one.

**Lessons Learned:**

Increased awareness does not immediately translate into changes in practice. Dental providers continue to be resistant to and/or uncomfortable in seeing children less than three years of age
and most do not accept Medicaid. The limited number of dentists willing to provide oral health preventive services to infants and young children, as well as the scarcity of pediatric dentists available to treat infants and young children with early childhood caries, continue to be problematic and pose barriers to improving the oral health of children in New York State.

Based on preliminary findings thus far, hands-on community-level interventions, such as the one being done in the WIC pilot project, appear to have the greatest potential for expanding access to and increasing the utilization of dental services for Medicaid and S-CHIP beneficiaries, low-income infants under age one, and preschool and school-aged children and their families in targeted high need areas of the State.

**Goal 3:** Identify, analyze, and address barriers to Medicaid and S-CHIP participation by dental health care professionals in order to increase the availability of oral health services for Medicaid and S-CHIP beneficiaries and other low-income individuals.

**Objective 3.1:** Provide technical assistance and training on procedures and strategies for reducing barriers to care and increasing the number of dentists accepting and providing services to Medicaid/S-CHIP beneficiaries.

**Objective 3.2:** Establish contacts with additional federally qualified health centers and community health centers in underserved areas to promote the provision and/or expansion of dental services for Medicaid/S-CHIP clients.

**Objective 3.3:** Elicit the support of State Dental Association and managed care organizations to encourage greater participation of dentists in Medicaid/S-CHIP.

**Objective 3.4:** Increase the availability of dentists, FQHS, and community health centers actively participating in Medicaid and S-SCHIP and providing dental services to the target population.

**Accomplishments:**

Work continued with relevant State and local programs, agencies, organizations, and key stakeholders on identifying and recruiting dentists in underserved high-need areas into Medicaid and CHIPRA. The Bureau of Dental Health was awarded a HRSA Oral Health Workforce Grant in 2011. Three of the goals of this initiative are consistent with those of TOHSS:

- Encourage dentists to adopt schools and Head Start Centers located in Health Professional Shortage Area locations to improve access to care.
- Increase the opportunity for new graduates to establish linkage with underserved community and obtain community support for establishing practices.
- Increase the capacity of the dental workforce to treat unmet needs in young children including those in Head Start Centers and pregnant women by offering continuing education programs.

TOHSS project staff worked collaboratively with Oral Health Workforce Initiative staff and subcontractors on identifying workforce shortage areas utilizing the Children’s Oral Health
Access Atlas developed under the TOHSS grant with carry forward monies from year one to year two of the grant. The Atlas consists of geographically correct maps of county and major metropolitan areas depicting the location of NYS dentists, Medicaid participating dentists, and concentrations of underprivileged children. Also included are statistical tabulations of the corresponding county dental workforce, Medicaid provider characteristics, population demographics, and age and procedure-specific Medicaid dental claim reports. The Atlas is designed to equip Area Health Education Centers, local health departments and their partners, and other key stakeholders with the tools needed to more effectively identify dental health provider shortage areas and areas where access to dental care is a problem and to locate both Medicaid and non-Medicaid dental providers who might be in a position to meet the demand or to recruit dentists to locate practices in these areas. Below is an example from the Children’s Oral Health Access Atlas:

In conjunction with a 2007 amendment of State Education Department regulations to include an optional assessment of a student’s oral health by a duly licensed dentist for students entering kindergarten, 4th, 7th and 10th grades, discussions were held with the State Education Department, NYS Dental Association and NYS Oral Health Coalition on implementing the Dental Health Certificate Program. As part of collaborative activities, Bureau and TOHSS staff worked with the State Dental Association on compiling a list of dentists willing to provide reduced fee dental care and in mapping the location of dental offices by school district. The State Dental
Foundation also recruited dentists to provide free assessments in schools and to adopt children into their practice who are in need of dental care.

A presentation was made to the medical directors of NYC-based Medicaid managed care plans on engaging primary care providers to improve the oral health of children by including oral health assessments and fluoride varnish applications as a routine standard of well childcare. In order to expand access to this important preventive service for low income children, Bureau staff worked with staff of the Department’s Office of Health Insurance Programs on having Medicaid managed care plans include fluoride varnish applications by physicians, nurse practitioners, physician assistants and dentists as a covered benefit.

TOHSS staff worked with community partners to create a resource list for peer-to-peer early childhood caries prevention training in order to encourage the expansion of pediatric health services to include oral health services for children. A resource list was established, comprised of the names and addresses of 45 pediatricians and pediatric dentists in the tri-state area (New York, New Jersey and Connecticut) listed as members of the APP Section on Pediatric Dentistry and Oral Health and who completed the American Academy of Pediatric Training Program for applying fluoride varnish. Working with the leaders of the AAP, Section on Pediatric Dentistry and Oral Health, TOHSS staff developed a questionnaire on Survey Monkey to be emailed to the 45 members to obtain information on their willingness to provide Peer-to-Peer Fluoride Varnish Training. The key members of the Section on Pediatric Dentistry and Oral Health tested the questionnaire and the Executive Directors of NYS Chapters of the AAP were contacted to review the questionnaire and obtain agreement to help forward the questionnaire to their local members. Guidelines are being developed to establish the roles of peer trainers, role of peers requesting training, and the process for disseminating to pediatricians or pediatric dentists the opportunity of peer-to-peer training.

The TOHSS Project Director continues to serve as the Chairperson of the NYS Oral Health Coalition Maternal Perinatal Committee and work with Committee members on increasing awareness of the oral health needs of pregnant women and expanding the availability of dental providers willing to accept Medicaid and provide oral health care services to pregnant women. The Committee also focused on statewide initiatives to add oral health education to prenatal education and parent education classes at birthing centers; developing strategies to increase awareness among policy makers and stakeholders of the need for ECC prevention; and on surveying community partners on their perceived oral health needs.

In order to determine if access to dental care during pregnancy continues to be a problem for Medicaid-enrolled women, the Bureau obtained the services of a graduate student intern from the School of Public Health to conduct a survey of all general dentists in the Albany NY area. A total of 150 local dentists were contacted to determine if they currently treat pregnant and if they were willing to be placed on a referral list to accept referrals from prenatal care provides and other dentists to provide oral health services to women during their pregnancy. Unfortunately, only 30 dentists (20% response rate) were agreeable to answering the survey. Of those responding, half (15 dentists) indicated willingness to be placed on a referral list; only three of these dentists, however, would accept Medicaid patients.
Medicaid claims for dental services, as well as hospital charges for ECC-related care were analyzed to determine if access to and use of oral health services by low-income infants and children increased over the course of the grant. The proportion of children having a dental visit by age one increased by a very limited degree. Prior to the start of the grant (calendar year 2007), one in every 450 infants received any type of dental services prior to their first birthday; by the end of 2010, the rate had improved to one in every 360 children. The proportion of children 12-24 months and 24-36 months of age having at least one dental visit during the year increased over the first three years of the grant (from 2.7% to 4.3% and 11.3% to 15.9%, respectively).

Among the three age groups, out of all children enrolled in the Medicaid Program having at least one dental visit during the year, the proportion of those receiving preventive oral health services increased, with the largest increase noted for children under 12 months of age.
In a recently published study undertaken by the Bureau of Dental Health, ECC-related visits to emergency departments and ambulatory surgery facilities by children younger than six years of age substantially increased from 2004 through 2008 (increase of 1,322 [30%]). It is premature to evaluate from these data the impact of publication of New York’s “Oral Health Care during Pregnancy and Early Childhood Practice Guidelines” in 2006 and the 2009 changes in the NYS Medicaid Program authorizing the reimbursement of fluoride varnish applications for children under seven years of age by both dental and child health care professionals on ECC-related visits to emergency departments and ambulatory surgery facilities. It is also premature to evaluate the impact of increases in the proportion of Medicaid-enrolled children with dental visits receiving preventive oral health services between 2009 and 2010. A follow-up evaluation study is needed to assess the impact of the above two referenced interventions and increased utilization of prevention services by children under three on ECC-related visits to emergency departments and ambulatory surgery facilities.

As part of sweeping budget reductions, New York City discontinued oral health services at five clinics effective May 30, 2009 and closed 41 school-based dental programs on May 1, 2009. These closures of dental clinics and school-based dental programs affect 17,000 children, who have to obtain dental services from other clinics or provider providers. Bureau staff worked with representatives from the New York City Department of Health and Mental Hygiene, Dental Colleges, hospitals and non-City sponsored school-based dental programs to devise a plan for the continuation of oral health services for needy children impacted by the closures.

The Bureau sponsored a Policy Tool Workshop that brought together oral health advocates to discuss oral health issues and facilitate critical thinking about oral health policy in New York State. Attendees represented organized dentistry and dental hygiene, public health, dental education, Medicaid, foundations, and insurers. Twenty-eight potential policies were identified for consideration, with two identified as the highest priorities:

- Amend current Public Health Law 1100A language to require that water systems serving a determined population size be fluoridated or that children residing in those communities be provided oral health assessments and fluoride varnish applications.
- Change the current dental health certificate program to include New York City, require a dental exam before a child starts school and that children have a dental home, and allow dental hygienists to provide the required assessments.

**Impact on the Community and Oral Health Services:**

As a result of the availability of the Children’s Oral Health Access Atlas, local health departments, Area Health Education Centers, and other key stakeholders now have critical tools that were previously non-existent to use to more effectively identify dental health provider shortage areas and areas where access to dental care is a problem. The Atlas also allows comparisons to be made between the geographic location of families with children living in poverty and the offices of Medicaid and non-Medicaid dental providers. This information is useful to communities in targeting outreach to dental care providers to encourage greater participation in the Medicaid Program and in recruiting dentists to establish practices in underserved areas.
Despite modest improvements in the proportion of infants and young children having at least one dental visit during the year, there remain far too few low-income children under three years of age receiving oral health services. The increase in the number of children receiving oral health services in emergency departments and ambulatory surgery facilities is both troubling and costly. Based on the Bureau’s 2012 published study, total charges for the treatment of preventable early childhood caries in emergency departments and ambulatory surgery facilities increased from $18.5 million in 2004 to $31.3 million in 2008 (an increase of 69.1%). In each of the five years analyzed, self-pay was the largest primary payer, followed by Medicaid. Self-payment increased from 73.5% of all charges in 2004 to 80.7% of all charges in 2008; during the same time period, Medicaid as primary payer decreased from 25.1% to 17.2%. The increased financial burden for the treatment of preventable early childhood caries in emergency departments and ambulatory surgery facilities falls more and more on families and communities. Since many families can ill-afford to bear the costs of care for their children, a large proportion of the charges are uncompensated and are paid for through philanthropic sources, higher chargers to private paying patients, Medicaid and Medicare disproportionate-share payments or direct state or local appropriations.

**Lessons Learned:**

Outreach and education efforts to encourage dental visits by age one, promote increased participation in Medicaid and S-CHIP by dental providers, and the recruitment of dentists to work in dental health provider shortage areas must all be coordinated and targeted to those areas of the State with the greatest need. The determination of need should be multi-factorial and based on the size and distribution of the dental workforce, the prevalence of early childhood caries being treated in emergency departments and ambulatory surgery facilities, findings on the oral health status of children from current surveillance activities (e.g., the third grade survey), and a review of Medicaid dental claims by age and procedures.

Since dental providers continue to be resistant to and/or uncomfortable in seeing children less than three years of age and most do not accept Medicaid, more innovative approaches to the delivery of oral health services for infants, young children and pregnant women need to continue to be explored and piloted. Early findings from the WIC pilot project are encouraging, with this model of service delivery appearing to have the greatest potential for expanding access to and increasing the utilization of dental services for Medicaid and S-CHIP beneficiaries, low-income infants under age one, and preschool and school-aged children and their families in targeted high need areas of the State.

More oral health education also needs to be directed to pregnant women and new mothers. Based on the self-reporting of women enrolled in the WIC Program, a markedly small number of mothers report having any concern about their children’s teeth. Given that slightly over 41% of all children screened in the WIC Pilot Project were found to have active decay and 37.5% of those had severe caries requiring immediate intervention and treatment, many parents may view caries in baby teeth as normal and not an issue.
Goal 4: Increase the number of children in targeted communities who receive primary preventive and needed treatment services through a dental home.

Objective 4.1: Provide training on strategies for securing a dental home and treatment services for the target population.

Objective 4.2: Provide ongoing technical support and assistance if problem are reported in finding dental homes and treatment services for low-income infants and children.

Objective 4.3: Partner with newly funded and/or approved school-based dental sealant programs on developing local collaborations for the provision of oral health services and establishment of dental homes.

Objective 4.4: Develop and implement an evaluation plan to determine the effectiveness of Medicaid, S-CCHIP, child health care professionals, childcare programs, and school-based dental programs in increasing access to primary prevention services for infants and at risk preschoolers and young children in underserved areas of the State.

Accomplishments:

Nationally, 40% of children from birth to 20 years of age enrolled in Medicaid and CHIP in FFY 2009 received at least one dental service, with 35% receiving a preventive dental service. New York State fell below the national average, with 35.4% of children under 20 years of age receiving at least one dental service in FFY 2009 and 31.0% receiving a preventive dental service. Based on Medicaid paid claims for children covered under either Medicaid fee-for-service or Medicaid Managed Care Plans, the percentage of children enrolled in Medicaid receiving dental services has increased each year since 2005, with the most notable increases beginning in 2007.
School-based dental sealant programs are a highly effective strategy for reaching disadvantaged children and providing services to children unlikely to receive them otherwise. The establishment of school-based or school-linked dental programs in schools with a high proportion of at risk children is also a cost-effective strategy for reaching and serving children at high risk for dental diseases. Placing oral health preventive services directly in schools and obtaining parental consent for participation affords many children a point of entry into the dental care delivery system and access to preventive care that they might not otherwise have.

Currently, 60 school-based dental sealant programs provide oral health services to children in 602 schools across New York State. Program sponsors include, but are not limited to, county health departments, community health centers, hospitals and diagnostic and treatment facilities, schools of dentistry, and rural health networks. The intent of New York’s school-based and school-linked oral health prevention and sealant programs is to expand the availability of oral health services into high need, underserved areas of the State; reduce or eliminate disparities in oral health outcomes; and to achieve Healthy People 2020 oral health targets.

New York’s school-based and school-linked dental sealant programs screened nearly 69,000 children during the 2008-09, 2009-10, and 2010-11 school years. Among those screened, 29.4% had sealants present, 35.1% had sealants applied, and 29.8% were identified as having untreated decay.

Based on 2010 Medicaid dental claims, half of all second and third graders, the age group targeted by school-based and school-linked programs, received dental services during the year; by age 10 through 14 years, however, utilization of dental services dropped down to 37%. The use of preventive dental services followed the same pattern, with 46.1% of low income 5 through 9 year olds receiving at least one preventive service, compared to less than a third of older children.

New York State achieved the Healthy People 2020 target of 29.4% (OH-8) with respect to the proportion of low-income children and adolescents receiving any preventive dental service during the past year. With the exception of 5 through 9 year olds, NYS failed to meet the
Healthy People 2020 target of 49.0% (OH-7) for the proportion of older children and adolescents using the oral health care system in the past 12 months.

There have been notable reductions in the prevalence of tooth decay and untreated decay and increases in the use of dental sealants among Upstate New York’s third grade students between 2004 and 2010. Collectively, Upstate third graders achieved Healthy People 2020 targets with respect to dental caries experience in their primary and permanent teeth (OH-1.2: less than 49.0%), untreated dental decay (OH-2.2: less than 25.9%), and receiving dental sealants on one or more of their permanent teeth (OH-12.2: at least 28.1%). Disparities in oral health status, however, remain, with low-income children (income eligible for the free or reduced cost school lunch program) continuing to have a higher prevalence of caries experience and untreated decay and a lower use of dental sealants than higher income children. Unlike caries experience and untreated decay, disparities in the use of sealants between high and low-income students decreased.

<table>
<thead>
<tr>
<th>PERCENT OF 3rd Grade CHILDREN WITH CARIES EXPERIENCE</th>
<th>2004</th>
<th>2010</th>
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<tbody>
<tr>
<td>All students</td>
<td>53.8%</td>
<td>45.4%</td>
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<tr>
<td>High Income</td>
<td>48.6%</td>
<td>31.1%</td>
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<tr>
<td>Low Income</td>
<td>65.8%</td>
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<tr>
<th>PERCENT OF 3rd GRADE CHILDREN WITH UNTREATED DECAY</th>
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<th>2010</th>
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<tr>
<td>All students</td>
<td>29.6%</td>
<td>24.0%</td>
</tr>
<tr>
<td>High Income</td>
<td>23.0%</td>
<td>14.3%</td>
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<tr>
<td>Low Income</td>
<td>41.8%</td>
<td>35.2%</td>
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<table>
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<tr>
<th>PERCENT OF 3rd GRADE CHILDREN WITH SEALANTS PRESENT</th>
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<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>All students</td>
<td>38.1%</td>
<td>42.0%</td>
</tr>
<tr>
<td>High Income</td>
<td>42.5%</td>
<td>44.9%</td>
</tr>
<tr>
<td>Low Income</td>
<td>28.9%</td>
<td>38.4%</td>
</tr>
</tbody>
</table>

TOHSS continued to work with and provide technical assistance to school-based and school-linked dental programs on identifying dental care providers for the referral of children needing a dental home and/or treatment services. Linkages on finding a dental provider were added to the DOH public website and provided to all school-based dental programs (http://www.health.ny.gov/prevention/dental/finding_dental_provider.htm).

Changes in the Medicaid Program went into effect on October 1, 2009 to allow dental and child health care providers to apply fluoride varnish up to four times a year to the teeth of children under age seven. Although the average number of fluoride varnish claims per quarter nearly doubled from 2009 to 2010, overall, the results were disappointing. Infants less than 12 months of age accounted for a negligible proportion of all fluoride varnish claims, while 12 to 24 month old infants accounted for less than 20% of all fluoride varnish claims. There was also a shift in the age distribution of fluoride varnish claims between the two periods, trending toward the application of fluoride varnish among older children and away from infants and toddlers.
In 2008, New York State was the recipient of 374 HRSA-funded grants ($549 million), representing all nine of HRSA’s major programs. In order to better coordinate activities funded under the different grants and improve collaborations, HRSA convened a series of meetings in 2009 known as the New York State Strategic Partnership. HRSA grantees participating in the kick-off meeting represented HIV/AIDS, Maternal and Child Health and Prenatal Care and Birth Outcomes, Community Health Centers, Primary Care and Rural Health, and Health Professions Workforce. Participants worked in small groups to select priority health issues, with a plenary session held to select the final two health indicators. One of two priority health indicators selected is the number and percentage of New York State residents with access to oral health care. Improving collaboration with stakeholders and maximizing Dental Health Professional Shortage Area designations were identified as key strategies for improving access to oral health services, with key stakeholders to include representatives from Office of Rural Health, Community Health Care Association of New York State, Centers for Medicare and Medicaid Services, Center for Health Workforce Studies, Division of Family Health, Bureau of Dental Health, Office of Health Insurance Programs, dental schools and societies, school districts, Head Start and Early Head Start programs, Area Health Education Centers, rural health networks and county Departments of Health.

The following recommendations were made at subsequent New York State Strategic Partnership meetings:

- Increasing awareness of dental health needs in young children and the need for early dental visits;
- Coordinating the efforts of work already being done that focus on the childhood lifecycle;
- Developing and launching a coordinated campaign to promote the use of fluoride varnish, including provider training and billing instructions;
• Improving dental workforce data to identify potential shortage areas;
• Identifying HPSA designations in underserved and rural communities to help recruit providers; and
• Increasing recruitment efforts and recruiting dentists already enrolled in Medicaid to serve patients covered by Medicaid.

Many of the recommendations and collaborative partnerships proposed by the New York State Strategic Partnership have already been successfully implemented and/or established under New York’s TOHSS grant.

Impact on the Community and Oral Health Services:

New York State continues to make progress in the provision of oral health services to low income children, with school-based and school-linked preventive dental and sealant programs proving to be a highly effective strategy for reaching and serving children who may otherwise not have access to preventive oral health care. Disparities in oral health status, however, continue to exist, with the prevalence of tooth decay and untreated decay higher among low-income children. Additionally, the burden of oral disease among school-aged children is not uniform across the state, with the prevalence of tooth decay among low-income children ranging from a low of 20.9% in Schuyler County to a high of 92.7% in Herkimer County. Among low-income children, the proportion of students with untreated decay ranged from a low of 7.0% in Schuyler County to a high of 63.4% in Sullivan County.

These three counties all have little to no fluoridation of public water supplies, about a third of dentists practicing in each county participating in the Medicaid Program, and a similar proportion of children enrolled in Medicaid receiving dental and preventive dental services during the year. The major differences in the counties are school participation in the fluoride mouth rinse program and sponsorship of a school-based or school-linked preventive dental and sealant program. None of the 30 schools in Herkimer County have a school based dental program, while 11 (37%) have a fluoride mouth rinse program. Among the 31 schools in Sullivan County, 9 (29%) have a school-based dental program and 5 (16%) have a fluoride mouth rinse program. Although much smaller population wise and in the number of schools, 4 of the 6 (67%) schools in Schuyler County have a school-based dental program and 50% (3 schools) have a fluoride mouth rinse program.

The application of fluoride varnish as a caries prevention strategy has the potential to reduce the prevalence of dental caries disease and save both the State and counties Medicaid expenditures for the treatment of preventable dental caries, especially early childhood caries.

Lessons Learned:

Efforts to increase awareness of the dental health needs of young children, the importance of early dental visits and to promote the use of fluoride varnish, especially among infants and toddlers, need to be ongoing. More community partners and stakeholders need to be involved to provide assistance with these activities at the local level. Prevention interventions must be
built on a hierarchy of strategies, with policy interventions and changes in the law having the potential to impact on the greatest number of individuals.

Oral health education, especially with pregnant women and the mothers of infants and young children, not only needs to continue, but be expanded. Based on initial results in the WIC Pilot Project, a negligible number of mothers report having any concerns about their children’s teeth. When nearly 100 children were examined, however, slightly over 41% had active decay, with 37.5% having severe caries requiring immediate intervention and treatment. Maternal perception of oral health status did not match the findings and more needs to be done to make parents aware of what constitutes normal oral health and that decayed baby teeth are not normal or to be expected.

SUSTAINABILITY

Funds provided under the TOHSS grant enabled New York State to hire a full time Project Director, enter into a contract with the American Dental Association for the development of the Children’s Oral Healthcare Access Atlas, establish collaborations and networks with over 540 individuals, 328 organizations and programs, and 18 perinatal networks that provide services to pregnant women, infants and young children, develop oral health training programs and workshops for a variety of providers, develop and distribute low-literacy oral health education materials on prenatal and infant oral health, and initiate an oral health assessment and fluoride varnish pilot project with the WIC Program.
Fortunately, the end of HRSA funding has not marked the end of any of these activities. Contacts continue to be maintained with individuals and organizations and oral health materials and resources shared on a periodic basis, workshops on oral health continue to be provided at WIC Program and Perinatal Association of NYS annual conferences, oral health information and resources on the Department of Health public website continue to be updated and expanded, and low-literacy oral health education continue to be made available to community partners.

The former TOHSS Project Director continues as a member of the staff of the Bureau of Dental Health. Although the nature of her work has changed, the focus is still on increasing access to oral health services for low income infants, children and pregnant women and much of what she does remains consistent with the original goals and objectives of the TOHSS grant. She also serves as the Chairperson of the Maternal-Infant Oral Health Committee of the New York State Oral Health Coalition and is able to continue to build and strengthen networks and collaborations established under TOHSS.

Staff in the Bureau of Dental Health continues to build on the accomplishments of TOHSS and incorporate previously funded TOHSS activities into their current work. Since the contacts and networks established under TOHSS have all been entered into a comprehensive database, maintenance of the database and the distribution of oral health materials and resources continue uninterrupted.