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A Case for School-Linked Oral Health Programs

Linda Teal Mercer

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A CASE FOR SCHOOL-LINKED ORAL HEALTH PROGRAMS

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A.S., University of Bridgeport, 1978
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at the
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2003
A CASE FOR SCHOOL-LINKED ORAL HEALTH PROGRAMS

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2003
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OBJECTIVE

Poor oral health is a significant health problem for low-income children in the United States. This study attempts to outline the current oral health conditions and concerns of the children in the United States. Through an extensive needs assessment this study seeks to support the establishment of a comprehensive school-linked oral health program that will address the specific needs of the low-income student population of Danbury, Connecticut.
BACKGROUND

Today, most American children have excellent oral health. Good oral health is generally considered to be an absence of disease and adverse conditions that occur in the mouth. These conditions can include gum disease, tooth decay and oral cancer. The state of an individual’s oral health can be affected by personal oral hygiene, diet, and personal habits. Environmental factors such as community water fluoridation can also affect oral health. Tooth decay is often used to measure overall oral health because it is the most common oral disease, data is readily available and it can be an early indication of the need for dental care.¹

The oral health of children in the United States has improved significantly over the past 25 to 30 years. The average number of teeth, per child, affected by dental caries has decreased. The mean number of decayed, missing, and filled permanent teeth (DMFT) per child in the age groups 5 to 11 years and 12 to 17 years has fallen approximately 60% during the 1970’s and 1980’s. There has also been an increase in the proportion of the population that is caries free. Children who were caries free in their permanent teeth increased from 37% in 1979-80 to 50% in 1988-91.² These advances in oral health have led many to believe that childhood dental disease has been eradicated.

With all the improvements made over the past few decades, the statistics regarding poor oral health remain overwhelming. Although the high prevalence of asthma in children has caught the attention of the nation’s medical professionals and policy makers, dental caries continues to be the most prevalent chronic childhood disease. Tooth decay is also seven times more common than hay fever (Figure 1)⁴. Alarmingly,
50 percent of all children have dental caries in their primary teeth by the time they are in first grade. This percentage increases to 80% by the age of 17.\textsuperscript{4,5} Seven percent of this population has lost one permanent tooth to dental caries.\textsuperscript{1}

**Figure 1**

<table>
<thead>
<tr>
<th>Disease</th>
<th>Percentage of 5- to 17-year-olds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dental caries</td>
<td>58.6</td>
</tr>
<tr>
<td>Asthma</td>
<td>11.1</td>
</tr>
<tr>
<td>Hay fever</td>
<td>8.0</td>
</tr>
<tr>
<td>Chronic bronchitis</td>
<td>4.2</td>
</tr>
</tbody>
</table>

(Note: Data include decayed or filled primary and/or decayed, filled, or missing permanent teeth. Asthma, chronic bronchitis, and hay fever based on report of household respondent about the sampled 5- to 17-year-olds. Source: NCHS 1996.

Children with untreated oral disease often suffer from persistent pain. They may also find it difficult to eat comfortably or chew well. These children may be distracted from play and learning due to the discomfort and embarrassment that comes from discolored and damaged teeth. These statistics are reflected in the almost 52 million school hours that are missed each year due to poor dental health.\textsuperscript{6,1}

Unfortunately, there is a substantial subset of children in America that suffer disproportionately from untreated oral diseases. The poor, less educated, and uninsured populations suffer through more than 41 million restricted-activity days every year. Children living in poverty, some racial/ethnic populations, and disabled children suffer
from higher amounts of toothaches and acute abscesses everyday when compared to the more fortunate populations. Poor children were found to have five times more untreated dental caries than children in higher income families\textsuperscript{1,3} (Figures 2, 3, 4)\textsuperscript{4}.

**Figure 2**

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage of people</th>
</tr>
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<tbody>
<tr>
<td>2 to 9 (primary teeth only)</td>
<td>36.8%</td>
</tr>
<tr>
<td>5 to 17 (primary and permanent teeth)</td>
<td>43.6%</td>
</tr>
<tr>
<td>18+ (permanent teeth only)</td>
<td>34.4%</td>
</tr>
</tbody>
</table>

Source: NCHS 1996.

**Figure 3**

<table>
<thead>
<tr>
<th>Racial/Ethnic Group</th>
<th>Percentage of decayed primary teeth that are untreated per child</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic black</td>
<td>67.4%</td>
</tr>
<tr>
<td>Mexican American</td>
<td>70.5%</td>
</tr>
<tr>
<td>Non-Hispanic white</td>
<td>57.2%</td>
</tr>
</tbody>
</table>

Source: NCHS 1996.
Race/ethnicity is another variable regarding the level of need for oral care. Mexican children have the highest number of primary teeth with caries. Mexican children also have the highest number of untreated teeth (36.8%) among all age groups.\textsuperscript{3,5,8}

**WHY IS IT A PROBLEM?**

Medicaid programs in every state offer some level of dental coverage for poor children. These dental services generally have a low participation rate by Medicaid eligible populations. This low rate of services received is due to a wide variety of reasons, including fear of dental treatment, lack of access to dental providers, limited transportation, limited appointment times offered, language barriers, and the perception that no care is necessary.\textsuperscript{1} Just under half of those that reported no dental care in the past year (46.8%) stated that they did not perceive any current dental problem.\textsuperscript{9,10}

As a result of the low usage of dental services, many dental problems become acute and need to be treated on an emergency basis. In Las Vegas, dental emergencies
account for 6% of all emergency room visits among children younger than age six. This problem is not unique to Las Vegas. Columbus Children’s Hospital emergency room and Boston’s Children’s Hospital emergency room also see four to six dental emergencies every night. These children generally have had to endure the pain associated with dental disease for weeks or months prior to their emergency room visit.6

Parents and caregivers are faced with multiple obstacles when trying to obtain dental services for their Medicaid insured children. There are few providers willing to treat this population. Once a provider is located, the choice of appointment times may be limited. This population also finds transportation to the appointment to be a major obstacle. If a caregiver successfully negotiates these barriers, there are more to follow. Some of these include long delays in waiting rooms, and judgmental and discriminatory behavior from dental providers and office staff. It is perceived that these attitudes are because of their race and public assistance status.11

The Surgeon General’s Report concurs that oral health disparities do exist due to low-income status and race. Many minority communities have only limited dental services available. According to an analysis of the National Health Interview Survey data, 73% more parents reported that their child has an unmet need for dental care than those reporting an unmet medical need.1 The Harlem Prevention Center conducted a survey between 1992 and 1994. This survey found that the number one health issue for these residents was a lack of access to dental care.10 Individuals that are fortunate enough to be privately insured are more likely to receive dental treatment when needed.11 The lack of dental insurance is a major barrier to receiving primary care for children and it is a more significant barrier than either poverty or minority status.3
In Connecticut, low and moderate-income children are promised comprehensive dental benefits through the HUSKY A and HUSKY B programs. HUSKY is a consolidated health insurance program designed to provide health care to uninsured children and youth. HUSKY A includes the traditional Medicaid program for children. HUSKY B is a state subsidized children’s health insurance program for children in higher-income families. This promise of coverage has not been able to guarantee access to care. In fiscal year 1999, 71% of the children enrolled in HUSKY A received no dental treatment. It is felt that it can take some time after enrollment to obtain dental care, yet even after the children have been continuously enrolled in HUSKY A for an entire year little to no preventive or treatment services have been received.12

PROVIDERS

Despite the numerous Medicaid dental programs in the United States, most are dysfunctional. Policy makers and the general public often consider oral health less important than other medical needs. Because of this low status, oral health care is often considered optional.13

The Medicaid dental programs generally fail to meet the needs of poor children. Dental care is expensive and the dental portion of the Medicaid program is grossly underfunded.6 The few safety net providers that are available are often limited in size and understaffed. A child with no dental insurance or Medicaid sponsored dental insurance will generally receive incomplete care for a dental emergency if they have only an emergency room on which they can depend. Emergency rooms are not equipped as a dental office and follow-up care is often not sought or not available to address the underlying issue, which caused the emergency. In an emergency room a dental abscess is
typically treated with a pain pill and an antibiotic. The same child would obtain comprehensive care for a broken arm in almost any emergency room in the United States. Therefore, there are so few providers for the Medicaid population. A few of the most common reasons that providers give are that reimbursement rates are too low, that there is too much paper work involved, that they dislike managed care programs with low capitation payments and that high numbers of Medicaid patients do not show up for their appointments.

In Wisconsin, the reimbursement rates are considered low at 47% of usual and customary. These levels of reimbursement appear generous when compared to what providers are receiving in Connecticut.

In 1999, there were 2,680 dentists in Connecticut. Although 740 (27.6%) of these dentists were registered Medicaid providers, only 225 (8.4%) dentists actually provided any dental services under the Medicaid Program. The number is further reduced to 100 (3.7%) dentists that provided a significant amount of care to HUSKY participants.

It is not difficult to see why these numbers are so low. The Connecticut Medicaid program pays less than the 10th percentile of customary dentist’s fees. Connecticut’s three dental managed care companies pay approximately $4 to $7 per month per member (PMPM). The Reforming States Group and American Academy of Pediatrics have conducted actuarial studies suggesting that an acceptable rate of payment would be $17 to $20 PMPM in rural Connecticut areas. Connecticut is an expensive state to live and work in, making it difficult for providers to accept $4 to $7 PMPM. Those that do accept the rates may not offer timely appointments or will delay follow up treatment.
COMMUNITY COLLABORATIVE EFFORTS

Improving the oral health of the neediest children in a community is best achieved through the cooperation of many agencies and organizations. It is imperative to work through and with the leaders of a community in order to reach a minority population. Those who strive to make a difference in these populations realize that neither the parents nor the dentists are to blame for the current state of poor oral health. It will take more than these two parties to rectify the problem.\textsuperscript{15} The public health sector cannot make a difference without the help and support of the medical and dental sectors. The recent shift to Medicaid managed care requires that new relationships be established between these professions. A private-public-partnership requires the active interest and involvement of federal public health programs as well. These changes should be viewed as an opportunity to improve clinical practice by integrating oral health prevention and maintenance more fully with diagnosis and treatment. Some state programs are mandating a partnership between the public and private sectors. Kentucky requires cross-sector partnerships in Medicaid managed care to undertake needs assessments, wellness promotion programs, and health education programs. In Minnesota, managed care organizations are required to work with local public health agencies to improve community health.

Some of the professions and agencies that need to be included in the collaborative efforts are local dentists, pediatricians, school administrators, teachers, parents, school nurses, Headstart program administrators, WIC program administrators, school-based health programs, community health clinics, the media, managed care organizations, academic institutions, community groups, religious organizations, and foundations. All
of these resources need to work together in order to determine what facilities currently exist in a community and how to best address the shortages found. The public and private sectors can combine resources and skills in order to influence peers, policy makers, and the community. Their combined effort can also address technical, administrative, and management needs. Together they can work to locate available buildings and space. With the cooperation of these diverse disciplines a system of coordinated services can be developed, as well as a referral network. This type of collaboration will break down the limitations that any one group may perceive. It also creates a large community of people that feel that they have some ownership and input into the project. These efforts become synergistic.\textsuperscript{15}

**FINANCING**

Medicaid offers a comprehensive and preventative child health program for eligible individuals under the age of 21. This program is called the Early and Periodic Screening Diagnostic and Treatment Service (EPSDT). The EPSDT program was established in 1967 to assure the availability of and access to health care resources. It also works to help Medicaid recipients to effectively use these resources. To expand health coverage to children whose families have incomes that are low, but not low enough to qualify for Medicaid, in 1997 the Congress created SCHIP as title XXI of the Social Security Act.\textsuperscript{1}

States are required to work with recognized dental organizations to establish the standards for dental services provided. The dental services provided may not be limited to emergency treatment. A periodic direct examination is required for all children eligible
for Medicaid. The federal government provides minimal funding to cover these services.

In June 2000, three families enrolled in the Husky Part A program filed a lawsuit against the department of Social Services claiming that they were denied access to dental services in violation of federal law. The families brought the lawsuit as a class action seeking to represent all families enrolled in the HUSKY Part A program. They are asking that the court order DSS to increase dental reimbursement rates, to improve administration of the Medicaid dental program, and to do whatever necessary to recruit an adequate number of qualified dental providers throughout the state.

It is through school-based programs that many children access medical and dental services. School-based health centers, historically, have been funded through private foundations, local health departments, and Maternal and Child Health (MCH) block grants. Medicaid and private insurance billing has generally not been done in school-based programs due to the costs associated with filing claims. Another reason for not pursuing billing is because services such as health education, group counseling, and outreach are not routinely covered. These practices need to be reviewed due to the growth of managed care organizations and the decrease in federal and state dollars available that have made it essential to maximize patient care revenue.

These relationships have made it critical for state governments to assist the negotiations between school-based centers and insurance carriers. Ultimately, the school-based centers should be able to provide EPSDT exams, increasing access to the Medicaid population without a cost explosion, providing a means for earlier intervention, improving quality of care, and reducing transportation costs.
Although it seems that school-based centers and managed care organizations would be a good business venture it has proven to be a challenging relationship. Managed care organizations have refused to negotiate agreements in some situations. In other situations they have narrowly defined the relationship. A few fortunate school-based health centers have been accepted by managed care organizations as partners in providing primary care.

In Massachusetts, school-based health centers and managed care organizations have been mandated by the State Medical Assistance Office to work together. In Colorado, the state has assisted negotiations by providing the managed care organizations with a cost analysis of school-based health centers services, quality control measures, and a market share analysis. In West Virginia, the Health and Human Service Department has offered a financial incentive of up to 2% in additional capitation for managed care organizations contracting with public health providers. These public health providers include school-based health centers.\textsuperscript{18}

In Bridgeport, CT the dental program takes advantage of a full-time dentist and the dental operatories located in six of the Bridgeport school-based health centers. Services provided include diagnostic exams, prophylaxis, fluoride, sealant treatments, fillings and emergency care. This program receives a sub capitation payment from one of the Medicaid managed care plans to provide a full range of primary dental care, including assessments and fillings. For those students who elect to receive their dental care in school, this dental plan will pay the health department $2.80 per member per month. While it is recognized that the rate may not cover the cost of care, it is more financial remuneration than they have had in the past.\textsuperscript{19}
The Manchester Memorial Hospital receives reimbursement from CHN and Blue Care Dental Insurance. This represents just a small percentage of their budget because they have not yet signed a contract with Doral Dental Insurance and due to the large number of children that do not have any dental insurance.²⁰

As long as access to routine care is limited Medicaid eligible patients will continue to utilize hospital emergency rooms for dental treatment. Emergency room visits are costly. In one southwestern hospital alone, expenditures for dental and oral disease (except extractions and restorations) are among the top seven diagnoses for children under the age of 6, and account for $548,557 in hospital billings.⁶

LABOR FORCE

Access to care is impacted by the declining dentist to population ratio. The shortages are evident in the increasing numbers of designated health professions shortages areas (HPSA’s) and appear to becoming more severe. In December 2001 there were 1,233 dental HPSA’s in the United States. That number increased to 1,853 by December 2002.²²

In Iowa, 20% of the dentists are 60 years old or more. In the Dakotas, 30% of the dentists are 55 or older, 40% are between 45 and 55, and a survey taken in North Dakota indicated that 40% of the dentists are planning to retire in the next 10 years. Dental provider shortages have also become a critical problem in the sparsely populated sections of Northern New England and the fast-growing suburbs of the Southwest.²¹

There are several factors contributing to this shortage. The cost of dental education is very high. The large amount of debt that many graduating dentists are
burdened with limit their options. Some do not feel that they have the option to choose work in the low paying positions found in rural areas, public health, or academia.\textsuperscript{14}

Another contributing factor to the shortage of dentists is the decrease in the number of dental schools. Between 1989 and 2001, seven dental schools have closed. Only one has opened in that time. The remaining dental schools have smaller class sizes. The overall percentage of dental graduates declined between 1986 and 2000 by 40\%.\textsuperscript{23}

The dental profession is also faced with 400 budgeted, but vacant, dental school faculty positions. This shortage threatens the quality of education offered and ultimately, access to necessary oral health care for many populations.\textsuperscript{22}

Dental graduates are also becoming less representative of the changing U.S. demographics. By 2050, nearly half (48\%) of the U.S. population will be composed of what we think of today as racial and ethnic minority groups.\textsuperscript{3} However, of the incoming dental students, less than 5\% are African American and less than 5\% are Hispanic/Latino.\textsuperscript{23} Minorities in the United States will continue to struggle for access to appropriate (in many cases ANY) care as long as these problems are not addressed.

NEEDS ASSESSMENT

An early step for any community interested in addressing oral health access to care issues is a comprehensive needs assessment. A needs assessment, specific to Danbury, CT, is included in this paper. Similar to the goal of most needs assessments, this assessment attempts to obtain information that will allow a collaborative to develop a plan of action that will effectively provide preventive and/or treatment care to the target population. This collaborative may consist of community leaders such as school administrators, school nurses, health department administrators, area dental professionals,
and/or members of the public. A community collaborative operates to combine resources and skills, coordinate services by establishing frameworks of care, and strengthens health promotion. Although the collective knowledge and perceptions of the collaborative members may be accurate, quantitative data needs to be collected and analyzed to substantiate them.

Focus groups may be very time consuming and difficult to quantify, but they are an effective means of determining what questions need to be asked on subsequent surveys. Through a focus group, personal experiences and perceptions can be learned. Multiple perspectives can be integrated to describe a process that no single person may have experienced completely.

At least two different populations need to be included in the focus groups. The first group includes those people that are able to provide information due to their expertise in the medical and dental area. These include local dental providers, non-dental medical providers, and health and human services providers. The second group includes members of the target population. This may consist of parents and children, if this is the target population and may be found through Head Start programs, WIC, Dept. of Health programs, Church Organizations, and school organizations.

Surveys are developed to provide quantitative data regarding the extent of the existing problem and level of resources available in a community. It is necessary to ask complete and clear questions on surveys. A pilot survey distributed to a small portion of the population is helpful in determining the clarity of the questions included on the survey.
It is difficult to obtain a high percentage of surveys returned from either providers or target populations. Introduction letters follow up telephone calls, and an active network of collaborative members will assist this effort.

Oral health screenings provide statistical data pertaining to the extent of disease present, the level of care received, and identification of those in need of referrals. The dental providers performing the oral screenings need to calibrate the methods used (example: tongue blade and flashlight) and define the various levels of existing oral health present and treatment care referrals provided (example-urgent care, immediate care, routine care). All needs assessment data should be quantified and analyzed. It is essential to maintain this data in order to analyze the success of future programs.  

WHY A SCHOOL BASED ORAL HEALTH PROGRAM?

In the United States, 53 million students attend school through the academic year. Because of the size of this population and their accessibility, school health programs have become an efficient means of addressing the nation’s future health and well-being. With the support of local dental providers, non-dental medical providers, and others in the community, school based oral health programs provide an effective strategy for reaching low-income children who are at higher risk for dental disease. This has been proven through the successful preventive oral health programs based in public schools and Indian schools that have reduced the incidence of caries among their student populations.

School based health program have multiple advantages. Many parents have difficulty leaving work through the day so that their children obtain access to health care. School based programs would eliminate this barrier. They also relieve Medicaid of its obligation to provide transportation to enrolled youths. School based programs provide
care for many of those that are unattractive to office-based providers. For dental providers this may include those populations that have a high “no-show” rate for appointments, that are perceived to be unmanageable, that do not routinely follow directions, or present with the challenge of language and cultural barriers.9

In 1998 and 1999, the Division of Oral Health, National Center for Chronic Disease Prevention and Health Promotion at the Centers for Disease Control and Prevention, strengthened its commitment to coordinated school health with support for three state education agencies. Ohio, Rhode Island, and Wisconsin worked to develop an infrastructure for school based programs to improve oral health education, prevention, and services for school-aged children who are at high risk for oral disease. These improvements have been made possible by building on existing resources and the creation of new partnerships at the state and local levels.27

In Ohio, the plan’s overall goal is to reduce the impact of dental needs on school children’s ability to learn. The steering committee is examining existing systems of delivering dental services and making recommendations on 1) providing some oral health services through schools 2) providing new or better ways to link schoolchildren with local providers of care and 3) encouraging families to enroll in the Children’s Health Insurance Program (CHIP) to obtain necessary services. The group is also developing a plan to move individuals to action and to market dental disease prevention and treatment to school personnel, families, and students. If more decision makers recognize the importance of oral health as it relates to improved attendance, readiness to learn, and the potential to improve test scores, they will be more likely to incorporate oral health activities into school policies and programs.28 In Rhode Island, The Rhode Island
Departments of Education and Health partnered with the Rhode Island Department of Human Services, the state's Medicaid agency. This partnership has reduced the duplication of efforts by actively supporting the initiatives of each department, including the development of complementary policies, strategies, and financing mechanisms to increase the delivery of oral health education and preventative services to school-aged children in school and community settings. The Rhode Island, Healthy Schools! Healthy Kids! (HS! HK!) Program's Oral Health Steering Committee has made recommendations and proposed activities. Some of these include: 1) Conducting state-mandated dental screenings at schools in accordance with standardized protocols, providing training and technical assistance to school dentists and dental hygienists on the use of these protocols, and collecting and disseminating information on effective school-based and school linked models. 2) Working with the Rhode Island Department of Human Services on Medicaid reform to ensure access to and adequate reimbursement for dental services, particularly in school-based and/or school-linked programs. 3) Developing effective partnerships between schools and communities to provide culturally responsive outreach and education efforts that show families the benefits of preventive oral health care and the best ways to access oral health services. 4) Promoting policies to prevent oral-facial injuries during school-sponsored activities. 5) Reviewing Rhode Island's current health education programs to ensure the inclusion of key oral health concepts.

Through the HS! HK! Oral Health Initiative a work group was formed to explore the development of a safety net provider infrastructure. Alternatives for obtaining sustained funding to support effective school-based and/or school-linked models are also an area of exploration. These efforts are consistent with the HS! HK! belief that no
children should be without a dental “home” and that all children should enjoy the benefits of access to high-quality, culturally responsive oral health prevention, education, and treatment services.27

In Wisconsin, a component of the grant monies from the Centers for Disease Control and Prevention's Division of Oral Health was used for 2 surveys. These surveys were conducted in 1999 to determine the quantity and content of oral health activities in Wisconsin schools. Notable findings include: 24% of districts require oral health screening prior to entering pre-kindergarten, 15% of all districts refer students to local oral health care providers when a potential oral health problem or need is indicated, and 22% of districts have health education and promotion programs in one or more elementary schools with a budget drawn from general funds. These findings reflect the low priority that schools have assigned to oral health

Requirements for oral health education, the existence of oral health services programs, and oral health training for staff are all indicators of the priority level of oral health in a district. These oral health service programs may include screening and referrals, active brushing and flossing, fluoride mouth rinse, and sealants. The surveys conducted found: 7% of districts provide staff training in basic oral health facts and information, 16% of districts provide training for teachers who teach health, and approximately 25% of the school districts offer oral health service and treatment programs in grades K through 5. Fourteen percent of the schools overall had oral health service delivery programs.

These initial surveys indicate that Wisconsin needs to make substantial improvements in oral health education and programs. At the completion of the 3-year
cooperative agreement with the CDC, the Healthy Smiles for Wisconsin will re-administer these surveys in order to determine the impact of their efforts.27

WHAT TYPE OF PROGRAM?

Following the completion of a comprehensive needs assessment of the target population, the collaborative evaluates the current level of oral health needs along with the resources available in the community. In Danbury, CT, resources have been allocated to develop a comprehensive school based program to meet the oral health needs of the low-income student population.

Often, funding for a comprehensive program is not available. A comprehensive program might include: regular screenings and referrals, community water fluoridation, classroom fluoride swish and spit programs, healthy nutritional programs and policies, routine prophylaxes, fluoride gel application, sealant application, and complete restorative treatment. In these cases, an effective preventive program can be developed to utilize available funding and address the needs of the community. Only a minimal level of resources is necessary to create a program that can benefit the entire school population. For example, the screenings performed through the needs assessment includes a dental examination that identifies children with visually evident caries and various other oral health problems. A dentist or dental hygienist in the classroom, nurses’ clinic, or in school hallways can perform these screenings. These students need referrals sent home directing them to local dental providers. It is helpful to include a list of area providers that accept State Assistance as payment for dental services.

In 1999, the CDC included water fluoridation as one of the 10 greatest public health achievements of the 20th century.3 Community fluoridation can reduce cavities in
children by up to 40%. Communities in non-fluoridated areas, with fluoride levels below .7 ppm, may need to address the community water fluoridation policies. The EPA requires that all community water supply systems provide each customer with an annual report regarding the quality of water, including the fluoride concentrations. Through these reports, the fluoridation needs of a community can be evaluated. Water fluoridation is a safe and effective public health measure that can benefit people of all ages and socio-economic-status. This reduction in cavities will result in money and time saved. The average annual cost is about $0.50 per person per year in a large community (>20,000). For every $1.00 spent, $38.00 in dental treatment is saved. Fluoridating the low-fluoridated systems in Louisiana could possibly reduce annual Medicaid dental costs for pre-schoolers by $1.4 million. The potential cost savings across the nation is tremendous because more than 100 million Americans do not have optimally fluoridated water.

Fluoride swish and spit programs have proven to be effective in further reduction of the incidence of caries, even in communities with optimal levels of water fluoridation. This type of program has been shown to reduce decay by 35%. Children swish with a fluoride mouth rinse once a week in their classroom. School nurses, teachers, teacher aides, or adult volunteers generally supervise fluoride rinse programs in the classroom. The cost of a weekly mouth rinsing solution is about $0.50 per child for the entire school year.

A low budget preventive program could include fluoride varnishes. Fluoride varnishes have been used in Canada, Europe, and Scandinavian countries since the 1970’s as a caries prevention therapy. Fluoride varnishes are easily and quickly applied.
The fluoride varnish is “painted” on exposed tooth surfaces. A dental chair is not necessary for the application of the fluoride varnish and a non-dental professional can apply it. The fluoride is an organic solvent that sets when exposed to moisture, leaving a film of material on teeth. In the United States, the FDA has approved fluoride varnishes for use as cavity liners and for treating hypersensitive tooth structure. Their use as a caries prevention agent is not contraindicated. Many schools are using it, but insurance will not reimburse them for it. Fluoride varnishes provide optimal efficacy when applied every six months.\(^3_{,33}\)

School policies related to nutrition can be addressed with minimal resources. Proper nutrition is generally included in Health curricula. Although good nutrition is taught in the classroom, many children participating in free/reduced lunch programs are served sugar-laden cereals (ex. Lucky Charms\(^\circledR\)). I have observed this in Bridgeport and the school nurses in Danbury have also confirmed it. Soda and sweetened “sports” drinks are readily available in vending machines. Teachers may be permitted to distribute candy as rewards and incentives throughout the school day.

Children should be offered limited amounts of candy, gum, and other sweets. When these sweets are eaten, it should be limited to mealtime rather than snacks. Increasing the amount of fruit and raw vegetables served and decreasing the high sugar and artificially sweetened foods can help reduce a child’s preference for sweets.\(^3_{,34}\)

In Los Angeles, the school board passed a resolution in August 2002, which restricts the sale of soda and other nutrition-poor beverages before, during and until one half hour after the school day at all, student accessible campus sites. Although this
resolution was created to take aim at the growing problem of obesity, oral health will also benefit.\textsuperscript{35}

If resources are available, a sealant program should be established. Most decay among school-aged children occurs on the chewing surfaces of the teeth.\textsuperscript{3} Pit and fissure sealants keep bacteria out of the grooves by covering them with a plastic coating. Permanent molars are the most likely teeth to benefit from sealant application; therefore, sealant programs usually focus on children ages 6 to 8, and 12 to 14 in order to coincide with the molar eruption times. One sealant application can last as long as 5 to 10 years.\textsuperscript{36}

Sealant placement requires meticulous attention to technique, particularly moisture control. Sealants can be placed successfully in “field” settings using portable dental equipment. Sealant application and efficacy have been widely studied. School-linked sealant programs, with either fixed clinics or portable equipment have shown effective results.\textsuperscript{38,39,40} A Consensus Development Conference sponsored by the National Institutes of Health concluded, “an extensive body of knowledge has firmly established the scientific basis for the use of sealants”. The panel felt that educational materials utilized to enhance public and professional acceptance as well as third party reimbursement need to be developed.\textsuperscript{3} Sealant placement is supported in federally funded programs for woman and children, and sealants are covered services in all state Medicaid programs. Sealants have been found to be critical to the cost effectiveness of prevention programs.\textsuperscript{40}

With the use of portable equipment or fixed clinics, professional mechanical oral hygiene care can be offered to school aged children. This refers to the mechanical plaque control procedures, such as a prophylaxis, that can be performed by the dentist or dental
hygienist to prevent and control periodontal disease. The educational opportunities present during the preventive oral prophylaxis are extremely valuable. It is during this visit that clients can further their understanding of the relationship between plaque and oral disease. This visit also presents an opportunity to provide personal oral hygiene instruction.  

Each individual community collaborative needs to review the oral health needs present in their community, funding available, as well as the space available, particularly the space within the nurse’s clinics. Where resources are available, portable equipment may be considered. Larger investments may be able to consider the construction of a full dental clinic. Where space is the primary constraining factor, a mobile van is an option. All three of these options have the ability to include comprehensive treatment care.

Northern Manhattan Community Voices Collaborative joins the efforts of the Schools of Dentistry, Public Health and Medicine at Columbia, and the Harlem Hospital Medical Center, from the institutional side and the Alianza Dominicana, the Harlem Congregations for Community Improvement, local church leaders, Children’s Aid Society, the Local School Districts and the local Community Boards, from the community side. Together this collaborative forms the Community Dentcare coalition that provides an oral health prevention program for 40,000 children. The services provided for through this program include: screening, education, referral for treatment, scaling, prophylaxis, fluoride, and pit and fissure sealants. According to an e-mail from Sandra Harris, Executive Director, Northern Manhattan Community Voices project, “The schools with full treatment facilities are very helpful for children who are uninsured and increase the ability to provide comprehensive oral health care. The sites where we have
to refer for treatment, the follow up is low”. Systems integration is one of the greatest challenges for an oral health program. Communities that feel the greatest need to develop a school linked oral health program, do so because of the lack of oral health providers willing to treat low income children. This limits the ability to refer students from a preventative program into the community for the completion of comprehensive care. A care coordinator is essential to follow up on the treatment recommended to the student population.

School oral health programs that are fortunate enough to be able to provide comprehensive restorative treatment still rely on the community for specialized treatment. Patients with special needs and oral surgery must be informed of area safety net providers. The physical makeup of the oral health program needs proper staffing to complete the picture. In view of the shortage of professionals in many areas across the nation, this issue must be addressed before major expenditures are made. Are there dentists and/or dental hygienists available and willing to work in these facilities? Are the funds available to offer a competitive salary? Because of the severity of these problems, states are looking for creative ways to fill these positions. In Connecticut, the Department of Social Services has authorized direct reimbursement for dental screenings and preventive procedures performed by dental hygienists within their scope of practice. As a result, the managed care organizations participating in the HUSKY program have begun to credential dental hygienists as providers in their health plans. These efforts, while applauded, have many details yet to be worked out. The Danbury School District Oral Health Initiative recently attempted to credential with HUSKY providers for their portable equipment program, only to be told that preventative and treatment services
could not both be covered. Danbury was told to decide which services they wanted to be reimbursed for.

**EVALUATION OF PROGRAM**

Complete documentation of needs identified and services provided will assist in quantifying the success of a program. States must report EPSDT performance information annually (HCFA Form-416). The statute requires that the state provide the following: (1) the number of children provided child health screenings services, (2) the number of children referred for corrective treatment, (3) the number of children receiving dental services, (4) the state’s results in attaining goals set for the state under section 1905(r) of the act. This information is used to access the effectiveness of State EPSDT programs in terms of the number of children (by age group and basis of Medicaid eligibility) that receive child health screening services, the number that are referred for corrective treatment, and the number receiving dental services.

Surveys taken at the start of a program designed to measure student oral health awareness, teacher awareness and participation in oral health efforts, and perceived level of oral health needs will assist with the evaluation of the success of a program.

**RECENT INITIATIVES IN CONNECTICUT**

The CT Community Oral Health Systems Development Project was formed in response to a four-year federal grant received by the CT Department of Health to develop oral health initiatives at the local level. These local projects have resulted in an expansion of the capacity for dental care in Stamford, Groton, Bridgeport, East Hartford, Manchester, Vernon, New Haven, Stafford, the lower Naugatuck Valley and the Northeast District of Connecticut.
In June 2000, the General Assembly created two provisions affecting dental access in Public Act 00-2. One provision directed the Departments of Public Health and Social Services and the UCONN Health Center to establish a pilot program for the delivery of dental services to children in low-income families in two regions of the state.

The second provision established a dental advisory council, which reviews fees in the Medicaid program, makes recommendations for the modification of fees, monitor the effect of any fee increases, evaluates pilot programs, and enhances public and provider awareness of dental access issues.\(^{44}\)

In Danbury, Connecticut, a needs assessment was conducted in 2002 to establish support for a comprehensive school-linked oral health program. This needs assessment resulted in the establishment of a comprehensive oral health program funded by the Connecticut Health Foundation.
METHODS

The following is an oral health needs assessment performed in Danbury, CT, in 2002. This study establishes a need for a comprehensive oral health school-based program.

Danbury, Connecticut’s seventh largest city, is located in Fairfield County, in the Housatonic Valley. It’s geographic land area measures 42.12 square miles with a population density of 1,551.19 per square mile (1998). Records from the Danbury Public School Transportation Department indicate the vast majority of students live less than 1.0 mile away from the school they attend as illustrated in Figure 5.

Figure 5 Distance of Student’s Residence from School

![Distance of Student's Residence from School](image)

The demographic projections for the year 2001 estimate the population at 76,093. This represents a 14% increase over the 1990 census. Danbury was recently described in
the Hartford Courant as "the fastest growing community in the State". The average per capita income for the year 2001 was $28,183. Following are charts from the U.S. Census Bureau, Census 2000, which characterize the total population by age, the ethnic percentage, and a profile of general demographic characteristics. Table 1, titled Population Totals and Percentages, represents Danbury's total population, breakdown of sex and age breakdown of school aged-children. The table shows a generally even distribution between males and females as well as for the age distribution from under 5 years through 19 years.

**Table 1  Population Totals and Percentages**

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Population</strong></td>
<td>74,848</td>
<td>100.0%</td>
</tr>
<tr>
<td><strong>SEX AND AGE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>36,690</td>
<td>49.0%</td>
</tr>
<tr>
<td>Female</td>
<td>38,158</td>
<td>51.0%</td>
</tr>
<tr>
<td>Under 5 years</td>
<td>4,900</td>
<td>6.5%</td>
</tr>
<tr>
<td>5 – 9 years</td>
<td>4,540</td>
<td>6.1%</td>
</tr>
<tr>
<td>10 – 14 years</td>
<td>4,281</td>
<td>5.7%</td>
</tr>
<tr>
<td>15 – 19 years</td>
<td>4,561</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

Table 2 titled Danbury Population Race/Ethnicity, represents the race/ethnic breakdown of the total population of Danbury.

**Table 2  Danbury Population Race/ Ethnicity**

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>African American</th>
<th>American Indian</th>
<th>Asian</th>
<th>Pacific Islander</th>
<th>Hispanic</th>
<th>Multi-Race</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>56,853</td>
<td>5,060</td>
<td>214</td>
<td>4,082</td>
<td>26</td>
<td>11,791</td>
<td>2,960</td>
<td>5,653</td>
</tr>
<tr>
<td>%</td>
<td>75.9%</td>
<td>6.7%</td>
<td>.2%</td>
<td>5.4%</td>
<td>.03%</td>
<td>15.7%</td>
<td>3.9%</td>
<td>7.5%</td>
</tr>
</tbody>
</table>
Methods and Materials Used to Collect Data to Identify: *Existing Resources*

**Method One: Dental Provider Phone Survey**

To identify the existing resources for oral health care, the grant coordinator developed a telephone survey, which consisted of contacting dentists and group practices listed in the Greater Danbury area phone directory. There are approximately 100 dentists in Danbury and the surrounding areas of Bethel, Brookfield, Newtown, New Milford, and New Fairfield. This group of dentists or dental groups was surveyed. The office manager answered the majority of surveys and on occasion, consultation with the dentist occurred. The results of the surveys were entered into a database, quantified, and analyzed upon return by the grant coordinator and consulting hygienist.

The following information was gathered:

- Providers title
- Location by town
- Age range clients
  - TOD birth to 3 yrs
  - ADOL 4 yrs to 8 yrs
  - PRET 9 yrs to 13 yrs
  - TEEN 14 yrs to 18 yrs
- Behavior management care type
  - Level F1 = Unmanageable
  - Level F2 = Fearful
  - Level F3 = Timid
  - Level F4 = Cooperative
- Scope of services provided
  - Preventive (i.e. dental screening, exam, prophy, fluoride, sealants)
  - Primary (i.e. general comprehensive, restorative)
  - Specialty (i.e. pediatric dentistry, orthodontic)
  - Oral surgery

**Method Two: Dental Provider Oral Health Initiative Survey**

The grant coordinator mailed surveys, developed by the State Department of Public Health, along with an introduction letter and a self-addressed stamped envelope to area dental providers. This seven-question survey gathered the following information:

- type of practice
- dental services provided
- payment types accepted
- reason why state assistance is not accepted if they are non-HUSKY provider
- in what capacity might you consider becoming a part of an ongoing collaborative

Fifty surveys were mailed to local dental providers (one survey was mailed to each dental group). Follow-up telephone calls were made to dental practitioners that did not return surveys. If the survey had not been received, a copy was faxed at that time with a return request. The results of the surveys were entered into a database, coded, and pertinent information related to existing resources were analyzed by the grant coordinator and consulting hygienist. Twenty-two out of fifty surveys were returned, providing a 44% response rate.
Method Three: Phone Survey of Participating HUSKY Providers

The Children's Health Council, Provider Participation Report indicates that there are nine individual dental providers and two dental practice groups currently accepting HUSKY clients in the Greater Danbury area. Telephone calls were made to the identified providers to verify their participation in a HUSKY dental health care plan, specific managed care organization affiliations, and appointment availability.

Methods and Materials Used to Collect Data to Identify: Target Population to be Served

Data was obtained from The Children's Health Council regarding HUSKY utilization by age, race/ethnicity, and HMO plan of our target population. Additionally, through the Danbury Public Schools STAR database, information on enrolled school children was assembled including: dominate language spoken, address, phone number, date of birth, and free or reduced lunch program participation. This information identifies active HUSKY participants and those who are HUSKY eligible in the Danbury Public School system.

Methods and Materials Used to Collect Data Identifying: Existing Need for Oral Health Care (needs and barriers)

Method One: Dental Screening Survey for Existing Need

To assess the existing need for oral health care, dental screenings were performed on 944 students (ages 4-20 years) in the Danbury Public Schools. Registered Dental Hygienists, employed by the Danbury Public School system, performed dental screenings utilizing a flashlight and tongue-blade. Clinical data gained through the screening process was recorded on the Danbury Public School Dental Needs Assessment form.
1) Permission was obtained through “Negative Permission Slips”. If a permission slip was not returned, the student was included in the oral health screen pool.

2) The Danbury Public School Dental Needs Assessment forms recorded the following clinical data:

- status of teeth (decayed, missing, filled, sealants)
- gingival health (healthy firm, healthy rolled, marginal inflammation, extensive inflammation)
- treatment recommendations (Immediate, urgent, restorative/preventive)

In addition to the clinical data, demographic information including name, age, date of birth, gender, race/ethnicity, and school lunch program participation was gathered.

3) The results of the Danbury Public School Dental Needs Assessment were entered into a database, coded, and analyzed upon completion by the grant coordinator and consulting hygienist.

Park Avenue, Mill Ridge Primary and Mill Ridge Intermediate schools were selected for the preliminary Dental Needs Assessment. Fifty-one students from Broadview Middle School and sixty-one students from Danbury High School were included to provide a sample of the total population of the Danbury Public Schools. (Table 4) The students' age in the selected schools ranged from 4–12 years. These schools were selected due to their typical student representation of ethnicity and socio-economic status. Table 3 shows the ethnic breakdown of students at the three schools where complete screening surveys were performed.
Table 3  Percentage of Ethnicity of Targeted Schools

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>White</th>
<th>African-American</th>
<th>Asian</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Avenue *</td>
<td>40.0%</td>
<td>11.1%</td>
<td>13.1%</td>
<td>35.3%</td>
</tr>
<tr>
<td>Mill Ridge Primary</td>
<td>56.9%</td>
<td>11.5%</td>
<td>11.3%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Mill Ridge Intermediate</td>
<td>57.1%</td>
<td>13.0%</td>
<td>9.0%</td>
<td>20.9%</td>
</tr>
</tbody>
</table>

- Park Avenue has 0.6% Native American students

Table 4  Percentage of Total Population Screened

<table>
<thead>
<tr>
<th>Schools</th>
<th>Total Population</th>
<th># Screened</th>
<th>% Screened</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Avenue Primary</td>
<td>358</td>
<td>311</td>
<td>86%</td>
</tr>
<tr>
<td>Mill Ridge Primary</td>
<td>331</td>
<td>263</td>
<td>79%</td>
</tr>
<tr>
<td>Mill Ridge Intermediate</td>
<td>330</td>
<td>258</td>
<td>78%</td>
</tr>
<tr>
<td>Broadview Middle</td>
<td>1131</td>
<td>51</td>
<td>0.05%</td>
</tr>
<tr>
<td>Danbury High</td>
<td>2844</td>
<td>61</td>
<td>0.02%</td>
</tr>
</tbody>
</table>

Method Two: Parent/Child Oral Health Initiative Survey

One hundred letters introducing the Danbury Public Schools’ Oral Health Program including an explanation of the purpose for a needs assessment was distributed to parents of students at Hayestown School. Included with this letter was a survey (developed by the State Department of Public Health and modified by the grant coordinator) to identify the barriers associated with receiving oral health care. The surveys were handed out to the teachers to distribute to students to bring home for parents’ to fill out and return to school. The only follow up was from the teacher in the form of reminders to the students to return the survey.
The survey was designed to collect information regarding the parents' need for care and the child's need for care. Six multiple-choice questions were asked on the Parent/Child survey. The questions were as follows:

- How long has it been since you last visited the dentist or a dental clinic?
- What are the most important reasons that you have not visited the dentist in the last year?
- Do you have dental insurance coverage that pays for some or all of your routine dental care?
- Do you have State Assistance (Medicaid, Husky A or Husky B) but cannot find a dentist to care for you?
- In the past two years, how many days have severe dental problems such as pain or infection in the teeth, gums or jaw prevented you from engaging in your daily activities such as work or school?
- If a local dental health center were available in your community, would you be interested in receiving dental care there?
- Would you be interested in receiving dental care at the same location that you receive other services such as WIC or your child receiving services where she/he attends school?

Hayestown School was chosen for this survey because it has a central pre-K program for the Danbury area (not based on residential zoning) and enrolls students from pre-K through grade five with a diverse ethnic population. The total population for Hayestown School is 322 students. The ethnic breakdown of the Hayestown School population is shown in Table 5.
One hundred surveys were distributed to a sample of each grade level with a 74% response rate for the parent’s portion and a 75% response rate for the child’s portion of the survey.

Method Three: Health and Human Services Provider Oral Health Initiative Survey

A survey was sent to WIC counselors, Head Start personnel, and Danbury Public School system nurses (public, private, and parochial). Developed by the State Department of Public Health and modified by the grant coordinator, this survey was designed to extract the estimated percentage of clients having problems accessing oral health care. Five questions were asked on the survey. The questions were as follows:

- What is your appropriate affiliation?
- How many of your clients have a problem getting oral (dental) health care?
- What percentage would you estimate have a problem getting oral (dental) health care?
- What are the problems? Check off perceived barriers in accessing care: Dentist won’t accept Medicaid, Fear-nervousness-pain, Cost-can’t afford, Can not get time off from work, Distance-transportation, Language, Do not know or have dentist, No reason to go, Other things to do
- What is your patient/client population?

The results were entered into a database and analyzed by the grant coordinator and consulting hygienist. This group of professionals was chosen because of direct

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>African-American</th>
<th>Asian</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45.1%</td>
<td>12.3%</td>
<td>12.3%</td>
<td>30.3%</td>
</tr>
</tbody>
</table>
experience with clients and oral health care referrals. This Health and Human Services Provider Oral Health Initiative Survey was mailed to the director of each agency with an introduction letter and request for their participation. Fifty-two surveys were distributed and thirty-two were completed and returned for a 61% response rate.

Methods and Materials Used to Collect Data for Developing System Integration

Background: Developing a Community Dental Collaborative

In April, after potential funding from the Connecticut Health Foundation was made known, a group of key stakeholders met to discuss the potential development of an oral health initiative. Parties involved discussed working together as a group to conduct an oral health needs assessment, guiding the development of, and insuring the sustainability of dental services for HUSKY participants and underserved youth. Community Health and Welfare leaders who have been vocal in the past about oral health needs for HUSKY participants and underserved youth were invited to attend the first collaborative meeting. It was recommended at the first gathering that the group involve additional key participants. Currently, the Danbury Public School Oral Health Initiative (DPSOHI) Advisory Committee members include: the director of Head Start, WIC’s program director, Danbury Public Health’s director of school based health centers, the director of Danbury VNA, public and private sector dentists, dental hygiene educators, local pediatricians, Danbury Public School administrators, Danbury Public School medical advisors, and administration from the Danbury Hospital Community Health Center. The advisory board meets once a month to discuss and plan how to best facilitate an integrated community oral health program for HUSKY participants and underserved youth. A smaller work group of collaborative members was formed to meet periodically
between collaborative meetings to ensure the actualization of goal-based objectives. This collaborative initiative was important in achieving the high return rates for the health provider surveys.

**Method One: MD. Provider Oral Health Initiative Survey**

A survey was distributed to physicians in the Greater Danbury area in order to assess systems integration among MD providers. The following five questions were asked:

- During a well child visit do you routinely screen for dental problems?
- During a well child visit do you routinely discuss various oral health topics with parents? (Fluoridation, Early Childhood Caries/ Baby Bottle Decay, Oral Hygiene Procedure, Feeding Practices/ Nutrition, Oral Injury Prevention)
- If you do not routinely discuss these various oral health topics with parents, why not?
- Would you be interested in learning more about children’s oral health?
- In what format would you prefer to receive this information?

Fifty surveys were distributed to individual doctors and practice groups. Twenty-one were completed and returned for a 42% response rate.

**Method Two: Dental Provider Oral Health Initiative Survey**

The grant coordinator mailed surveys, developed by the State Department of Public Health, along with an introduction letter and a self-addressed stamped envelope to area dental providers. This seven-question survey gathered the following information:

- type of practice
- dental services provided
- payment types accepted
- reason why state assistance is not accepted if they are non-HUSKY provider
- in what capacity one might consider becoming a part of an ongoing community collaborative

Fifty surveys were mailed to local dental provider (one survey was mailed to each dental group). The results of the surveys were entered into a database, related information to system integration was extracted and analyzed by the grant coordinator and consulting hygienist. Follows up telephone calls were made to dental practitioners that did not return surveys. If the survey had not been received, a copy was faxed at that time with a return request. Twenty-two out of fifty surveys were returned, providing a 44% response rate.

**Method Three: Health and Human Services Provider Oral Health Initiative Survey**

A survey was sent to WIC counselors, Head Start personnel, and Danbury Public School system nurses (public, private, and parochial). Developed by the State Department of Public Health and modified by the grant coordinator, this survey was designed to extract feedback pertaining to system integration. Five questions were asked on the survey. The questions were as follows:

- What is your appropriate affiliation?
- How many of your clients have a problem getting oral (dental) health care?
- What percentage would you estimate have a problem getting oral (dental) health care?
What are the problems? Check off perceived barriers in accessing care: (Dentist won’t accept Medicaid, Fear-nervousness-pain, Cost-can’t afford, Can not get time off from work, Distance-transportation, Language, Do not know or have dentist, No reason to go, Other things to do)

What is your patient/client population?

The results were entered into a database and analyzed by the grant coordinator and consulting hygienist. This group of professionals was chosen because of direct experience with clients and oral health care referrals. This Health and Human Services Provider Oral Health Initiative Survey was mailed to the director of each agency with an introduction letter and request for their participation. Fifty-two surveys were distributed and thirty-two were completed and returned resulting in a 61% response rate.

Methods and Materials Used to Collect Data for Determining: The Level of Disparity

Data utilized from the Children’s Health Council reports, prepared for the Connecticut Health Foundation, indicated there were 2005 children continuously enrolled in HUSKY. Of these 2005 children 19.1% (383 children) received preventive care and 14.5% (290 children) received treatment care. DPSOHI plans to double the number of HUSKY participants receiving preventive and treatment care over the next five years.
RESULTS

Results of Needs Assessment: Existing resources

There are approximately 100 dentists in the Greater Danbury area and surrounding towns (Brookfield, Newtown, Bethel, New Fairfield, and New Milford). A telephone survey was conducted to assess the existing resources for oral health care. Eighty-five percent of the one hundred dentists and group practices surveyed indicated they were providing services for children; fourteen dentists were practicing orthodontists and six were oral surgeons (Figure 6).

Figure 6 Surveyed Providers Scope of Practice

Practices limited to general dentistry accounted for 71% of the survey respondents, 16% were limited to orthodontics, 7% were limited to oral and surgical care,
and 6% were limited to pedodontics. Of the 85 providers that indicated providing services for children, 35% (30 providers) stated that they do provide treatment for level F1 (Unmanageable) children on the behavior modification scale. The majority of general dentists (77%) stated that they would refer F1 level children to a specialty dentist, but that treatment would be provided to levels F2 (Fearful), F3 (Timid), and F4 (Cooperative).

There is only one group provider (general dentistry) in Danbury that accepts HUSKY as a form of payment. The only managed care plan that this provider, the Danbury Hospital Community Health Center Dental Clinic, accepts is Blue Care. When the phone survey was administered, May 2002, the Danbury Hospital Community Health Center Dental Clinic had a six-month waiting period for new HUSKY patients. One oral surgeon and three orthodontists also accept HUSKY patients (Figure 7).

Figure 7  Barriers To HUSKY Dental Participation
Out of the 22 dental surveys returned, 62% indicated that the burdensome paperwork and administrative process was a barrier to their participation in the HUSKY programs. Low reimbursement rates was sited by 57%, failure to keep scheduled appointments were cited by 48%, low capitation rates was cited by 43% and failure to follow directions was cited by 29% of the dentists surveyed. Fourteen percent of the dentists surveyed indicated that barriers to HUSKY participation included unmanageable patients and “If you treat one, you have to treat them all”.

Results of Needs Assessment: Target Population to be Served

The Danbury Public School System

The Danbury Public School Oral Health Initiative is at a great advantage in that the school system houses a majority of the underserved HUSKY enrolled youth. The DPSOHI will allow greater access to dental care within the 17 Danbury Public Schools. (There are 13 elementary schools, 2 middle schools, 1 high school, and 1 alternative high school). The total student population as of October 1, 2002 is 9,771 students. Table 6 shows the percentage of students on the Federal Free or Reduced Lunch Program and number enrolled in the HUSKY program.

<table>
<thead>
<tr>
<th>Current District Need</th>
<th># of students</th>
<th>% of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student participation in Free-Reduced Lunch Program 2001</td>
<td>2736</td>
<td>28%</td>
</tr>
<tr>
<td>Students continuously enrolled in HUSKY (09/00 – 10/01)</td>
<td>2005</td>
<td>20%</td>
</tr>
</tbody>
</table>

According to the 2001 census report there are approximately 17,596 youths aged birth to 17 years in the Danbury area. The Danbury Public Schools Oral Health Initiative plans to implement a school based oral health program in the public schools. This initiative will provide greater access to HUSKY children/students. The DBSOHI
anticipates doubling the number of children/students receiving oral health care over the next five years.

Currently, the guidelines set by the National School Meal Programs that provide free and reduced lunches require a family of 4 to have an income under $33,485 in order to participate.\textsuperscript{44} Children of a 4-member family, with an income under $34,041 are eligible for HUSKY A.\textsuperscript{45} The schools database provides information on free-reduced school lunch. This information will aid in the identification of children/students not participating in the HUSKY program but who meet eligibility requirements. This will make certain that significant HUSKY outreach is executed to ensure that each underserved child has the opportunity to access oral health care.

**Breakdown by Ethnicity**

The target population to be served is Danbury HUSKY eligible youth. Information derived from the Children’s Health Council indicated the largest proportion of Danbury schoolchildren and also HUSKY participants are Caucasian (Figure 8 and 9). However, taken as a whole the ethnic minority groups make up the majority of the HUSKY recipient profile (Figure 9). The largest ethnic minority group that makes use of the services provided by HUSKY is Hispanic, followed by African American and ‘other.’
Figure 8  Ethnic Make-up of Danbury Public Schools

![Graph showing the ethnic make-up of Danbury Public Schools. The bars represent American Indian, Asian-American, African-American, Hispanic, and White student populations. The numbers represent the count of students in each category.]

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian</td>
<td>14</td>
</tr>
<tr>
<td>Asian-American</td>
<td>834</td>
</tr>
<tr>
<td>African-American</td>
<td>1094</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2006</td>
</tr>
<tr>
<td>White</td>
<td>5422</td>
</tr>
</tbody>
</table>

Figure 9  Percentage of Continuously Enrolled Utilization by Ethnicity

![Graph showing the percentage of continuously enrolled students by ethnicity. The bars represent White, African-American, Hispanic, and Other categories.](Image)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Enrolled</th>
<th>Preventive Care</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>38.30%</td>
<td>19.00%</td>
<td>14.00%</td>
</tr>
<tr>
<td>African-American</td>
<td>18.90%</td>
<td>16.90%</td>
<td>12.70%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>37.90%</td>
<td>21.30%</td>
<td>16.40%</td>
</tr>
<tr>
<td>Other</td>
<td>4.90%</td>
<td>11.10%</td>
<td>10.10%</td>
</tr>
</tbody>
</table>
Characterization by Age

The Children's Health Council Utilization by Age report indicates that there are 1,065 children in the largest age group (between ages 6 and 14) enrolled in HUSKY. This age group includes 8 of the 12 years that most HUSKY participants are enrolled in school. Children of this age range primarily attend the elementary and middle schools.

Figure 10 indicates the percentage of continuously enrolled HUSKY participants and the percentage of services provided in each of the age groups. This graph indicates that although the percentage of students enrolled in HUSKY decreases above the age of 14, those ages 19 and 20 had a high percentage of treatment utilization.

Figure 11 shows the number of continuously enrolled HUSKY participants by age group and the number of those participants who have received care, preventive and/or treatment, under the HUSKY plan.
Figure 11  Continuously Enrolled Utilization by Age

![Bar chart showing continuously enrolled utilization by age](image)

<table>
<thead>
<tr>
<th>Age</th>
<th>Enrolled</th>
<th>Preventive Care</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 2</td>
<td>181</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Age 3-5</td>
<td>419</td>
<td>74</td>
<td>47</td>
</tr>
<tr>
<td>Age 6-14</td>
<td>1065</td>
<td>253</td>
<td>186</td>
</tr>
<tr>
<td>Age 15-18</td>
<td>294</td>
<td>43</td>
<td>40</td>
</tr>
<tr>
<td>Age 19-20</td>
<td>46</td>
<td>11</td>
<td>16</td>
</tr>
</tbody>
</table>

Enrollment in HUSKY continues to increase through age 14. The number of HUSKY participants that receive care also increases. Both enrollment and utilization numbers of treatment and preventative care services decrease after age 14.

**Utilization by Health Plan**

Figure 12 shows the number of continuously enrolled HUSKY participants, the number of HUSKY participants that receive preventive care, and the number of HUSKY participants that receive treatment care among the four health plan providers.
Figure 12  Number of Continuously Enrolled HUSKY Participants and Utilization by Health Plan

<table>
<thead>
<tr>
<th></th>
<th>Blue Care</th>
<th>CHN</th>
<th>Health Net</th>
<th>Pref One</th>
<th>Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolled</td>
<td>769</td>
<td>119</td>
<td>865</td>
<td>52</td>
<td>200</td>
</tr>
<tr>
<td>Preventive Care</td>
<td>148</td>
<td>33</td>
<td>133</td>
<td>17</td>
<td>52</td>
</tr>
<tr>
<td>Treatment</td>
<td>140</td>
<td>28</td>
<td>84</td>
<td>8</td>
<td>30</td>
</tr>
</tbody>
</table>

Figure 13 groups each of the Health Plans and compares the percentage of continuously enrolled and the percentage of preventive and treatment care each health plan provided.
The majority of HUSKY participants are enrolled through Health Net (43%). However, the utilization of care within Health Net is low. The main provider for preventive and treatment care is at the Danbury Hospital Community Health Center Dental Clinic where only Blue Care is accepted. This is reflected in the 37.45% utilization rate (Table 7).

Table 7  Numbers and Percentages of HUSKY Enrollment

<table>
<thead>
<tr>
<th></th>
<th>Blue Care</th>
<th>CHN</th>
<th>Health Net</th>
<th>Pref One</th>
<th>Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>cont. enrolled</td>
<td>769</td>
<td>119</td>
<td>865</td>
<td>52</td>
<td>200</td>
</tr>
<tr>
<td>preventive care</td>
<td>148</td>
<td>33</td>
<td>133</td>
<td>17</td>
<td>52</td>
</tr>
<tr>
<td>treatment care</td>
<td>140</td>
<td>28</td>
<td>84</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>% util. within plan</td>
<td>37.45%</td>
<td>52.10%</td>
<td>25%</td>
<td>48%</td>
<td>41%</td>
</tr>
</tbody>
</table>
Results of Needs Assessment: Existing Need and Barriers to Care

Existing Need

As a result of screenings performed on almost 10% of the school population, it was found that 279 (29%) of the children surveyed had decay present (Table 8 and Figure 14). Ninety (28.93%) of the children surveyed at Park Ave Elementary School had obvious decay. Of the 263 children surveyed at Mill Ridge Primary, 86 (32.69%) had decay present. At Mill Ridge Intermediate, 78 (30.23%) of the 258 surveyed presented with decay. The 51 children surveyed at Broadview Middle School had the lowest percentage of decay observed, (15.68%). Lastly, of the 61 students surveyed at Danbury High School, 17 (27.86%) had obvious decay present.

Table 8 Surveyed Schools Percentage of Decay Present

<table>
<thead>
<tr>
<th></th>
<th># of children surveyed</th>
<th># of children with decay</th>
<th>% of children with decay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Ave. Elementary/ ages 5-12</td>
<td>311</td>
<td>90</td>
<td>28.93%</td>
</tr>
<tr>
<td>Mill Ridge Primary/ ages 4-9</td>
<td>263</td>
<td>86</td>
<td>32.69%</td>
</tr>
<tr>
<td>Mill Ridge Intermediate/ ages 9-12</td>
<td>258</td>
<td>78</td>
<td>30.23%</td>
</tr>
<tr>
<td>Broadview Middle School/ ages 10-13</td>
<td>51</td>
<td>8</td>
<td>15.68%</td>
</tr>
<tr>
<td>Danbury High School/ ages 13-20</td>
<td>61</td>
<td>17</td>
<td>27.86%</td>
</tr>
<tr>
<td>Total</td>
<td>944</td>
<td>279</td>
<td>29%</td>
</tr>
</tbody>
</table>
Figure 14  Percentage of Children with Decay

As a preventive measure during the dental screenings, the registered dental hygienists recommended routine care and dental examinations for all of the students. Sealant applications were indicated for 424 (44%) students.

**Barriers to Care**

From the Parent/Child surveys, parents indicated cost and lack of dental insurance as a barrier to accessing oral health care for their children. Fifty-five percent of the children included in our survey either have no insurance or have dental insurance through State Assistance (Figure 15). A positive response was given to survey questions regarding interest in receiving dental care at a Community Dental/ Health Center (73%) and in obtaining care at the same locations as other services where other community services are offered such as WIC, or within the schools (59%). These high percentages
would appear to be supportive of a community based or school linked oral health program (Figure 16).

Figure 15   Insurance Coverage Breakdowns
**Figure 16  Preferred Location of Services**

![Bar chart showing preferred locations for services, with Community Health Center at 73% and Same Location as WIC/School at 59%]

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**Health and Human Service Providers Survey Response**

The Health and Human Services Providers felt that cost was the most noteworthy barrier (67%) to their clients obtaining oral health care. Additional perceptions included language barriers (64%) and no dentist (61%). Lack of transportation was thought to be a barrier for 50% of their clients. Forty-one percent (41%) also felt that no time off from work to go to the dentist and lack of dentist participation in Medicaid reimbursement programs were barriers to obtaining oral health care. Health and Human Services providers felt that 5% of their clients did not perceive a reason to seek care and 35% of their clients had more important things to do (Figure 17).
Results of Needs Assessment: *System Integration*

*M.D. Provider Oral Health Initiative Survey*

Primarily pediatricians and family practitioners completed the M.D. providers Oral Health Initiative survey. Seventy-one percent of respondents reported that they did not review oral injury prevention during a well child visit. This data indicates a need to incorporate Oral Injury Prevention into classroom curriculum and the OPEN WIDE training.

- More than 60% of practitioners surveyed indicated an interest in learning more about children’s oral health.
- 57% indicated an interest in learning more about children’s oral health via fact sheets and handouts.
28% indicated an interest in learning more about children’s oral health via a short evening or lunch time meeting.

**Dental Provider Oral Health Initiative Survey**

Fifty percent of the dental providers surveyed indicated an interest in working with the DPSOHI. Other interests in assisting the ongoing effort to enhance access to oral health care for underserved people indicated by dental providers are as follows:

- **48%** volunteered to provide oral health education programs in school or other community settings
- **43%** volunteered to provide technical assistance and professional consultation to community oral health facilities and program
- **43%** offered to provide care in a community facility dental clinic on a limited basis, at a reduced fee and adjusted payment schedule
DISCUSSION

The CDC and Surgeon General have developed a “framework for action”. This framework includes five areas of focus for oral health initiatives. These include:

- Changing perceptions regarding oral health and disease so that oral health becomes an accepted component of general health.

- Accelerating the building of the science and evidence base and apply science effectively to improve oral health.

- Building an effective health infrastructure that meets the oral health needs of all Americans and integrates oral health effectively into overall health.

- Removing known barriers between people and oral health services.

- Use public-private partnerships to improve the oral health of those who still suffer disproportionately from oral diseases.

School-based or school-linked programs have an opportunity to address all five of these areas. By including increasing levels of oral health education within classroom health curriculum children can be taught that brushing their teeth is as important to disease prevention as washing their hands. Through education students can understand that poor oral health is not an expected or acceptable state. Good nutritional policies are necessary for general well being.

Data collected through the ESPDT program can be used to monitor the oral health needs of individuals and communities. Through the quantification of this data appropriate resources can be located and utilized to address the needs identified. This data also provides baseline information on which the success of a program can be measured.
A school-linked program can increase awareness through outreach programs, collaborative efforts, and by providing education to community health and human service personnel, dental providers, and non-dental medical providers.

Students generally feel comfortable within their own school. School populations are often unique to their neighborhoods making it easier to address cultural and language barriers. Oral health services offered at a student’s school eliminates the need for a caregiver to take time off from work. It also eliminates transportation difficulties.

Through state, city, private and public funding it is possible to target those populations that suffer disproportionately from oral diseases.

Numerous urban schools have a school-based health center. Although many of these health centers do not have a dental component, there is much to be learned from their operations. These organizations have worked to increase the efficiency of their programs through the elimination of pre-authorization, decreasing the amount of paper work required for enrollment, and decreasing service duplication.

Through the needs assessment completed in Danbury it can be concluded that there is a substantial need for a school based oral health program. Having screened almost 10% of the student population, it was estimated that 28% of the students enrolled in the Danbury Public School system have existing caries. Data provided by the Children’s Health Council states that there were 2005 students continuously enrolled in HUSKY from September 2000 through October 2001. This data represents 20% of the total student population in the Danbury Public School System. Currently there is only one oral health provider group in the Danbury area that accepts state assistance for payment of dental services and then only in HUSKY Blue Care. At this time there is a
six-month waiting period for new HUSKY patients to be seen by this provider. Fifty five percent of the children included in the survey either have no insurance or have dental insurance through state assistance. Other area providers surveyed have indicated that they do not participate in the HUSKY program due to low reimbursement rates and burdensome paperwork. These numbers reflect a high level of unmet oral health need. Eleven dental providers have indicated an interest is providing care in a community dental clinic on a limited basis, at a reduced fee with an adjusted payment schedule. There was an overwhelming positive response from parents surveyed indicating a interest in receiving dental care in a community dental center, in a school linked dental clinic or at the same location that other services such as WIC are obtained.

The oral assessment found that children between 6-14 years of age showed the most need for preventive and treatment care. The preventive and treatment care indicated by the assessment includes: prophylaxis, dental examinations, oral health instructions, restorative care, pit and fissure sealant applications, fluoride treatments and referrals. By providing these services the caries rate in these school children would be significantly reduced.

Upon reviewing this data, I have concluded that a school-linked program would best facilitate the oral health needs of the low-income children in Danbury, Connecticut. The need for such a program is supported through the perceived barriers of cost, language and the lack of awareness for oral health care. Barriers including lack of transportation and parental loss of work time would be eliminated if the children were able to access care during school hours.
The Danbury Public School Oral Health Initiative has brought forth positive participation of community professionals to form a strong collaborative. The needs assessment has helped identify the dental providers within the community that are willing to provide care within a school-linked program. In addition, there are medical providers that have been identified and are interested in learning more about oral health and oral health needs. The pediatricians have agreed to include the Connecticut Public Health OPEN WIDE program in their continuing education series. There are also health and human service providers that are willing to work with the Danbury Public Schools Oral Health Initiative. Many of the health and human service providers surveyed are school nurses employed by the Danbury School District. This group participated in the OPEN WIDE program in November 2002. This program increased their awareness of the oral health issues of the student population that they serve daily. The cooperation of the school nurses is essential to the success of a school-linked oral health program.

The establishment of a school-linked program in Danbury is just the beginning. In December 2002, the Danbury Oral Health Initiative was awarded a grant from the Connecticut Health Foundation for $200,000 a year, for the next five years. This grant will assist the new-fledged program to set up the administrative framework necessary to become a self-sustaining entity. It will also provide the funds needed for initial supplies, capital expenditures and salaries. It is the hope of both the Connecticut Health Foundation and the Danbury Oral Health Initiative that this school-linked program can eventually support itself through HUSKY reimbursements.
Danbury is extremely fortunate to have the support of the Danbury Board of Education. Although the school district is not able to support the oral health program financially, their acceptance, conviction, and sponsorship of this effort is invaluable.

Through Healthy People 2010 and the Oral Health in America: A Report of the Surgeon General published in 2000, oral health is currently receiving more attention from policy makers than ever before. Therefore, regardless of the hurdles, full advantage needs to be taken of this increased awareness.
## Dental Provider Survey

### ORAL HEALTH INITIATIVE

An effort is underway to determine the unmet oral health needs and to enhance access to oral health care in the community in which we live and work. We need your input and guidance.

*Kindly complete these 7 brief questions and return by August 23rd in the envelope provided.*

<table>
<thead>
<tr>
<th>Name</th>
<th>Type of Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Setting:</td>
<td>Community Health Center</td>
</tr>
<tr>
<td>Private Office</td>
<td>Other(___________)</td>
</tr>
<tr>
<td>School-Based</td>
<td>Mother (___________)</td>
</tr>
<tr>
<td>Private Clinic</td>
<td>Father (___________)</td>
</tr>
<tr>
<td>Hospital</td>
<td>Other (___________)</td>
</tr>
</tbody>
</table>

1) What type of dental services to do provide in your office?

Check All That Apply

- Preventive (exam, prophylaxis, fluoride)
- Regular Restorative
- Specialty Pediatric (extensive restorative, behavioral management, sedation)
- Treatment Under General Anesthesia

2) What forms of payment do you currently accept for dental services in your office?

Check All That Apply

- Direct Private Payment (cash, check, credit cards, etc.)
- Private Fee-For-Service Insurance (BCBS, Delta Dental, etc.)
- Private Managed Care (CIGNA Dental Health, AETNA Preferred Dental, etc.)
- State Assistance: Fee-For-Service (Medicaid/Title 19' Access')
- State Assistance: Managed Care (Medicaid Managed Care/ HUSKY)

3) Are you accepting any new patients whose dental services are reimbursed through State Assistance?

[ ] NO  [ ] YES  ______ Children Only  ______ Adults Only  ______ Children & Adults

[ ] YES, but limited to certain circumstances: ____________________________

4) If you do not treat, or you limit the number, or you limit the type (e.g. only children, only elderly, only handicapped, etc...) of patients whose dental services are reimbursed through State Assistance, WHY?

Check All That Apply

- Fee-For-Service reimbursement rates are too low.
- Capitation rates are too low.
- Paperwork and administrative requirements to burdensome.
- Patients do not keep appointments.
- Patients are unmanageable.
- Patients are too medically risky.
- Patients don't follow directions.
- Patients upset the other patients.
- "If you treat one, you have to treat them all..."
- I do not treat State Assistance patients but none or very few come to my office.
- I would treat State Assistance patients if I could limit to specific days and hours.
- I would treat State Assistance patients on a limited basis if I could do so in a dental clinic facility outside of my office.
- Other: ____________________________
Dental Provider Survey (page two)

5) Do you provide dental care for uninsured or underinsured populations - other than State Assistance? If so, in what capacity?

<table>
<thead>
<tr>
<th>Check All That Apply</th>
<th>Routinely</th>
<th>Occasionally</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>* I provide care at no cost if patients are not able to pay.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* I offer patients reduced cost payment schedules to accommodate their financial situation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* I provide care for patients at no or reduced cost in a community facility (e.g. school based health center, convalescent etc...)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* I provide dental screenings at no or reduced cost in schools or other community settings.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Other: ____________________________</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6) In what capacity might you consider becoming part of an ongoing effort to enhance access to oral health care for underserved people in your community?

Check All That Apply

____ Become an active Title 19 (Medicaid / HUSKY) provider.

____ Become an active HUSKY B provider.

____ See patients in my office on a limited basis, referred by a community facility, at a reduced fee and/or adjust payment schedule to accommodate their financial situation.

____ Provide care in a community facility dental clinic on a limited basis, at a reduced fee and adjusted payment schedule.

____ Provide care in a community facility dental clinic on a limited basis, only at my usual fee.

____ Volunteer to provide oral health education programs in schools or other community setting.

____ Volunteer to provide technical assistance and professional consultation to community oral health facilities and programs (e.g. dental clinic design, dental office management, etc.)

____ Other: (__________________________)

____ I would NOT participate in a community oral health access enhancement program.

7) Comments: What “DOABLE” scenario would enable you to be an active dental care provider in a program to enhance oral health care for underserved people in your community? **BE CREATIVE!**

Would you like to participate in the ongoing work of this initiative? ____YES  ____NO

Thank you for contributing to this important health initiative!
ORAL HEALTH INITIATIVE

An effort is underway to enhance the oral health of your communities. We need your input and guidance. Kindly complete these 6 brief questions and return by August 23rd in the envelope provided.

<table>
<thead>
<tr>
<th>Type Of Practice:</th>
<th>Pediatrics</th>
<th>Family Practice</th>
<th>Other (please specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Setting:</td>
<td>___ Private Office</td>
<td>___ Private Clinic</td>
<td>___ Community Health Center</td>
</tr>
<tr>
<td></td>
<td>___ School-Based</td>
<td>___ Hospital</td>
<td>___ Other</td>
</tr>
</tbody>
</table>

1. During a well child visit, do you routinely screen for dental problems? ____ yes ____ no

2. During a well child visit, do you routinely discuss the following topics with parents? [Please circle yes or no for each]

   - YES  NO  Fluoridation (water testing, supplements)
   - YES  NO  Early Childhood Caries/Baby Bottle Tooth Decay
   - YES  NO  Oral Hygiene Procedures (tooth brushing, wiping the gums, etc)
   - YES  NO  Feeding Practices related to dental caries (sleeping with the bottle, snacking on demand, appropriate food choices to prevent dental disease)
   - YES  NO  Oral Injury Prevention (Athletic mouthguards)

3. If you do not routinely discuss the above topics with parents, why not? [Check All That Apply]

   - ___ Not enough time
   - ___ Dental is a low priority for my practice
   - ___ Parents are not interested
   - ___ I don’t know enough about dental care and disease
   - ___ It’s not my responsibility
   - ___ Other: ____________________________

[CONTINUED]
4. Would you be interested in learning more about children's oral health? ____ yes ____ no

5. If yes to question #4, in which format would you prefer to receive this information? [Check All That Apply]
   __ Short "Fact Sheets" for my staff and me
   __ Become an active HUSKY B provider
   __ Written materials (handouts, brochures) for my patients
   __ Videos for my reception room
   __ Attend a short evening or lunch time meeting
   __ Meet one on one with an oral health care provider to discuss children's oral health
   __ Other (please specify)

6. Comments:

Would you like to participate in the ongoing work of the initiative? ____ yes ____ no

Name_________________________________________ Phone________________________

Thank you for your help with this important health project.
Health and Human Service Providers Survey

ORAL HEALTH INITIATIVE

Dear Health & Human Services Provider:

Kindly take a minute or two from your busy schedule to complete the very brief (4 question) survey that follows:

1. PLEASE CIRCLE THE APPROPRIATE AFFILIATION. I am a...
   a. Physician    d. Head Start Representative
   b. Nurse        e. W.I.C. Representative
   c. Social Worker f. Other ______________________

2. HOW MANY OF YOUR CLIENTS HAVE A PROBLEM GETTING ORAL (DENTAL) HEALTH CARE?
   ___ Most       ___ Some       ___ None

3. WHAT ARE THE PROBLEMS? (Mark ALL that apply)
   ___ Dentist won’t accept Medicaid.
   ___ Fear, nervousness, pain, dislike going
   ___ Cost, can’t afford care
   ___ Cannot get time off from work to go to the dentists
   ___ Cannot get to the office / clinic (too far away, no transportation, no appointments available, no child care)
   ___ Language or other cultural barriers
   ___ Do not have / know a dentist
   ___ No reason to go (no problems, no teeth)
   ___ Other more important things to worry about, dental health low priority
   ___ Other: _________________________________________________________

4. Your patient/client population is mostly: (check all that apply)
   ___ Age 0-18 years ___ Age 19-65 years ___ Age 65 plus
   ___ State Assistance ___ Middle Income ___ Affluent

Optional Name_________________________ Phone_________________________

Would you like to participate in the ongoing work of the Initiative? Yes___ No ___
Parent and Child Survey

DANBURY PUBLIC SCHOOL
ORAL HEALTH INITIATIVE SURVEY

We need your help in our efforts to increase access to dental care for you and your family, your friends, neighbors and community. Kindly complete these 7 brief questions and return by
in the envelope provided.

NOTE: Answer each question as it applies to you and your child attending the Danbury Public School.

<table>
<thead>
<tr>
<th>Question</th>
<th>YOU</th>
<th>YOUR CHILD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. How long has it been since you last visited the dentist or a dental clinic?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOTE: If you answer &quot;a&quot;, SKIP Question 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Within the past year (1 to 12 months ago)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Within the past 2 years (1 to 2 years ago)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Within the past 5 years (2 to 5 years ago)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. 5 or more years ago</td>
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<tr>
<td>e. I have never been to the dentist or a dental clinic</td>
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<tr>
<td><strong>2. What are the most important reasons that you have not visited the dentist in the last year?</strong></td>
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<tr>
<td>NOTE: Check all that apply.</td>
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<tr>
<td>a. Fear, nervousness, pain, dislike going</td>
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<tr>
<td>b. Cost</td>
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<tr>
<td>c. Do not have, or do not know a dentist</td>
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<tr>
<td>d. Can not get to the office or clinic (too far away, no transportation, no day care, no convenient appointment available)</td>
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<td>e. No reason to go (no problems, no teeth)</td>
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<tr>
<td>f. Other important things to do</td>
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<td>g. Have not really thought about going to the dentist</td>
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<tr>
<td><strong>3. Do you have dental insurance coverage that pays for some or all of your routine dental dental care?</strong></td>
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<tr>
<td>NOTE: Check all that apply.</td>
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<tr>
<td>a. State Assistance: Fee-For-Service (Medicaid, Title 19)</td>
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<tr>
<td>b. State Assistance: Managed Care (HUSKY A, HUSKY B)</td>
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<td>c. Private Fee-For-Service (BCBS, Delta Dental, etc.)</td>
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<td>d. Private Managed Care Insurance (CIGNA Dental, AETNA Dental, etc.)</td>
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<tr>
<td>e. No Dental Insurance</td>
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<td><strong>4. Do you have State Assistance (Medicaid, HUSKY A, or HUSKY B) but can not find a dentist to care for you?</strong></td>
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<tr>
<td>a. YES</td>
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<td>b. NO</td>
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</table>
NOTE: Answer each question as it applies to you and your child attending the Danbury Public School.

<table>
<thead>
<tr>
<th>Question</th>
<th>YOU</th>
<th>YOUR CHILD</th>
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<tbody>
<tr>
<td>5. In the past two years, how many days have severe dental problems such as pain or infection in the teeth, gums or jaw prevented you from engaging in your daily activities such as work or school?</td>
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<tr>
<td>NOTE: Include visits to the dentist for emergency or NON-Routine treatments, but do not include visits for routine treatments such as fillings, cleanings, or routine removal of wisdom teeth.</td>
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<td>a. One half day or less</td>
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<td>b. One full day</td>
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<td>c. 2 full days</td>
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<td>d. 5 days or more</td>
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<td>e. None</td>
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<td>6. If a local dental health center were available in your community, would you be interested in receiving dental care there?</td>
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<tr>
<td>a. Yes</td>
<td></td>
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<td>b. No</td>
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<td>7. Would you be interested in receiving dental care at the same location that you receive other services such as WIC or your child receiving services where she/he attends school?</td>
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Comments:

Thank you for your help with this important health project.
# Oral Health Screening Form

**Danbury Public School Oral Health Survey and Needs Assessment**

**Date:** __________

**Clients Name/No.:** __________________________

**Gender:** M □ F □

**Date of Birth:** __________

**School/Site:** __________________________

**Medicaid Number:** __________________________

**Race/Ethnicity:** □ W □ AA □ H □ Other ________

**Age in years:** ________

**School Lunch Program:** Y □ N □

### MAXILLARY RIGHT

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**NOTES:**

Gingiva: Healthy/firm Healthy/rolled Marginal Inflammation Extensive Inflammation

### MANDIBULAR RIGHT

**Recommending:**

1. Immediate care
2. Oral health status acceptable
3. Improve personal care
4. Dental examination
5. Propylaxis

**Code:**

Key: D=decayed M=missing F=filled S=sealant Circle the teeth that are present X the teeth that have been extracted prematurely

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REFERENCES


    Zimmerman D. School-Based Health Centers- Financing. School-Based Health Centers and
    Managed Care: Seven School-Based Health Center Programs Forge New Relationships. The
    Center for Health and Health Care in Schools. April 1996. 8 August 2002


22. Johnson D. Statement before the Subcommittee on Labor, Health and Human Services, Education,
    and Related Agencies. Committee on Appropriations, United States House of Representatives. 23
    April 2002.


24. Weiss RS. Learning From Strangers, The Art and Method of Qualitative Interview Studies. New


28. United States. Centers for Disease Control and Prevention. New Emphasis on School-based and

    Disease Prevention and Health Promotion Dental Caries in Schoolchildren—Utah. May 19,1989 / 38(19);347-350. 13 August 2001
   http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/00001396.htm

    Fluoridation of Community Water Systems. May 29, 1992 / 41(21);372-375, 381. 13 August 2001
   http://www.cdc.gov/mmwr/preview/mmwrhtml/00016840.htm.


42. Harris, Sandra. Personal Interview. 14 November 2002


