

Oral Health Screening for Third Grade Students in Selected Schools in Connecticut and New York: A report for the Foundation for Community Health June 2006

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Background

There is anecdotally reported but unquantified unmet need for dental care in students in the Foundation for Community Health (FCH) catchment area. To quantify the problem of unmet dental needs among school students in the Foundation for Community Health service area, school-based screenings of third grade students were conducted in selected Connecticut and New York schools from October 19-21, 2005. The screening was a joint endeavor between the FCH and the Department of Oral Health Policy and Epidemiology (OHP&E) at the Harvard School of Dental Medicine (HSDM).

Goals

The main aim of the oral health screenings was to assess the oral health needs of 3rd grade students in the New York and Connecticut communities that are within the FCH catchment area. Additional goals of the screenings included:

- 1) Providing oral health education to 3rd grade students
- 2) Identifying children who have dental disease by visual examination
- 3) Identifying the burden of dental disease in these communities

Methodology

The targeted population was all third grade students from nine Connecticut and three New York schools. Participation was voluntary and the recruitment was done by FCH. The screening was done by dentists from HSDM with support from local volunteers. A total of 319 students were screened. The Connecticut schools included: Kent Center, Cornwall, Sharon Center, Warren, Goshen, Botelle, North Canaan, Lee H. Kellogg, and Salisbury. The New York schools included Dover, Alden, and Webutuck. The following is a brief description of the screenings and the subsequent analysis of the data collected:

The screening followed the NHANES protocol: only a mirror and light were used to screen the students. On this basis, decayed, missing, and filled primary and permanent teeth were recorded. In addition to these clinical data, information on age, school, race/ethnicity, and primary language spoken at home were collected. Information on oral hygiene status and treatment need assessment was also collected. The members of the department of OHP&E entered the data using an Excel database and analyzed the data using SAS v. 9.0. The findings were reviewed in conjunction with the Chairman of the Department, Dr. Chester W. Douglass. A summary of results, implications and future steps for program development has been formulated for the foundation's consideration.

Summary of Aggregate Results/Findings

- Of the 482 students enrolled in the participating schools, 319 were screened; bring the overall participation rate 66%. The participation response rate averaged 79% in the Connecticut schools and 53% in the larger New York schools.

- Overall about 66% did not have any decayed teeth, which means that the remaining 34% had ≥ 1 decayed teeth.
- Of the total students screened, 64% did not have any filled teeth, and 83% did not have any missing teeth. When looking at sealants, overall 61% did not have any sealed teeth
- Of the total number of students 36% had ≥ 1 fillings, 17% had ≥ 1 missing teeth, and 39% had ≥ 1 sealants.
- The overall mean dft+DFT score is used to evaluate primary and permanent teeth and is calculated by summing the total number of primary teeth that are decayed and/or filled and averaging over the total number of students with ≥ 1 decayed and/or filled primary. This is repeated for the permanent teeth and the two scores are then added. When analyzing the distribution of the mean dft score overall, the Connecticut schools had mean dft + DTF score of 8.6 and the New York schools scored 8.7.
- Poor oral hygiene appeared to be strongly associated with ≥ 1 decayed teeth. Filled and/or sealed teeth did not appear to be associated with poor oral hygiene.

Considerations for Future Oral Health Programs

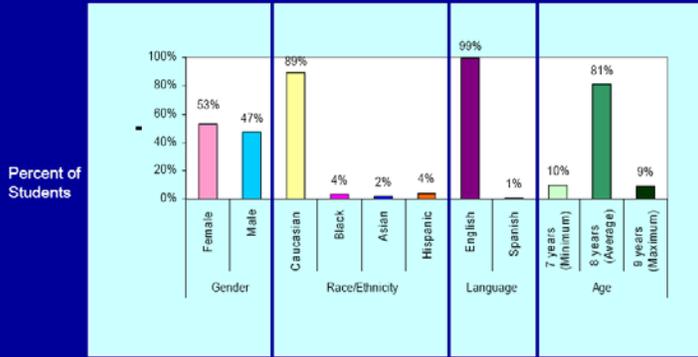
In order to improve the health of the children within the FCH service area, it will be necessary to routinely document the unmet dental needs of students within the community. On this basis, rational programmatic recommendations can be formulated which might consider the following types of dental programs:

- An emphasis on the oral health education in the school curriculum
- Preventive dentistry programs appropriate for each age group
 - Sealants: Target first permanent molars
 - Use of fluorides: Use one or more types of fluoride such as topical fluorides and fluoride varnish
- Access to dental care to meet the existing treatment needs
- A maintenance and follow-up surveillance system
- Periodic program evaluation

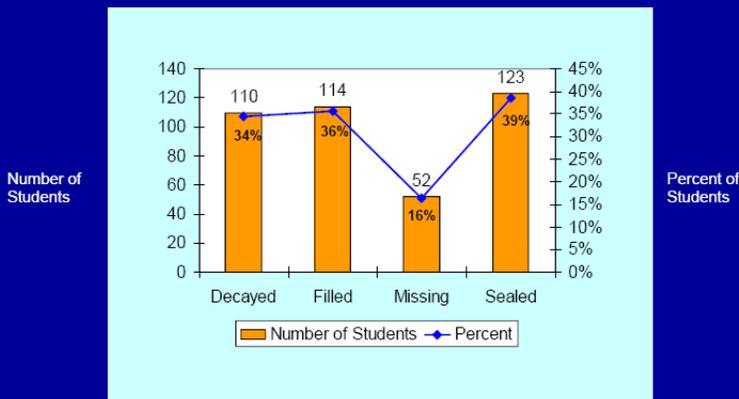
The data presented in this report is one of several pieces of data that the Foundation for Community Health will use in developing its Oral Health Program. Once all relevant data is collected the chart presented below can be useful as a conceptual model or designing comprehensive community-wide strategies to improve oral health and access to oral health services.

Decrease the <u>Need</u> for Dental Care	Increase the <u>Demand</u> for Dental Care	Improve the <u>Supply</u> of Dental Care
The amount and extent of disease in the population determines need	The perceived need for care determines the demand; demand is facilitated by public or private financial insurance	The number, type and geographic distribution of dental care providers and dental practices, and dental health centers

Demographic Characteristics of the Total Students Screened



Distribution of ≥ 1 Decayed, Filled, Missing and Sealed Teeth in the Total Students Screened



Distribution of Oral Hygiene and Urgency of Care Triage Scores

