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School Based Oral Health Needs Assessment

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Introduction

The Lehigh Valley is the third most populated region in Pennsylvania. Although there are several large hospitals in the region and two city health departments, regional coordination and access to health care is deficient. A collaborative task force, Greater Lehigh Valley Access to Care (GLVAC), was formed to develop strategies for optimizing access to quality care for all members of the Lehigh Valley community, with special emphasis on the underinsured and underserved. Although there have been a few scattered initiatives, oral health has continued to be a major concern. In the fall of 2006, oral health, particularly children's oral health, was identified by GLVAC and several funders as a priority.

With the help of local and national oral health colleagues and two partnering urban school districts, the idea of a school-based dental sealant program, with an associated five year research study, was envisioned. The study would examine the relationship between oral health, student academic performance and attendance. A steering committee was formed and eventually established the Greater Lehigh Valley Oral Health Partnership (GLVOHP).

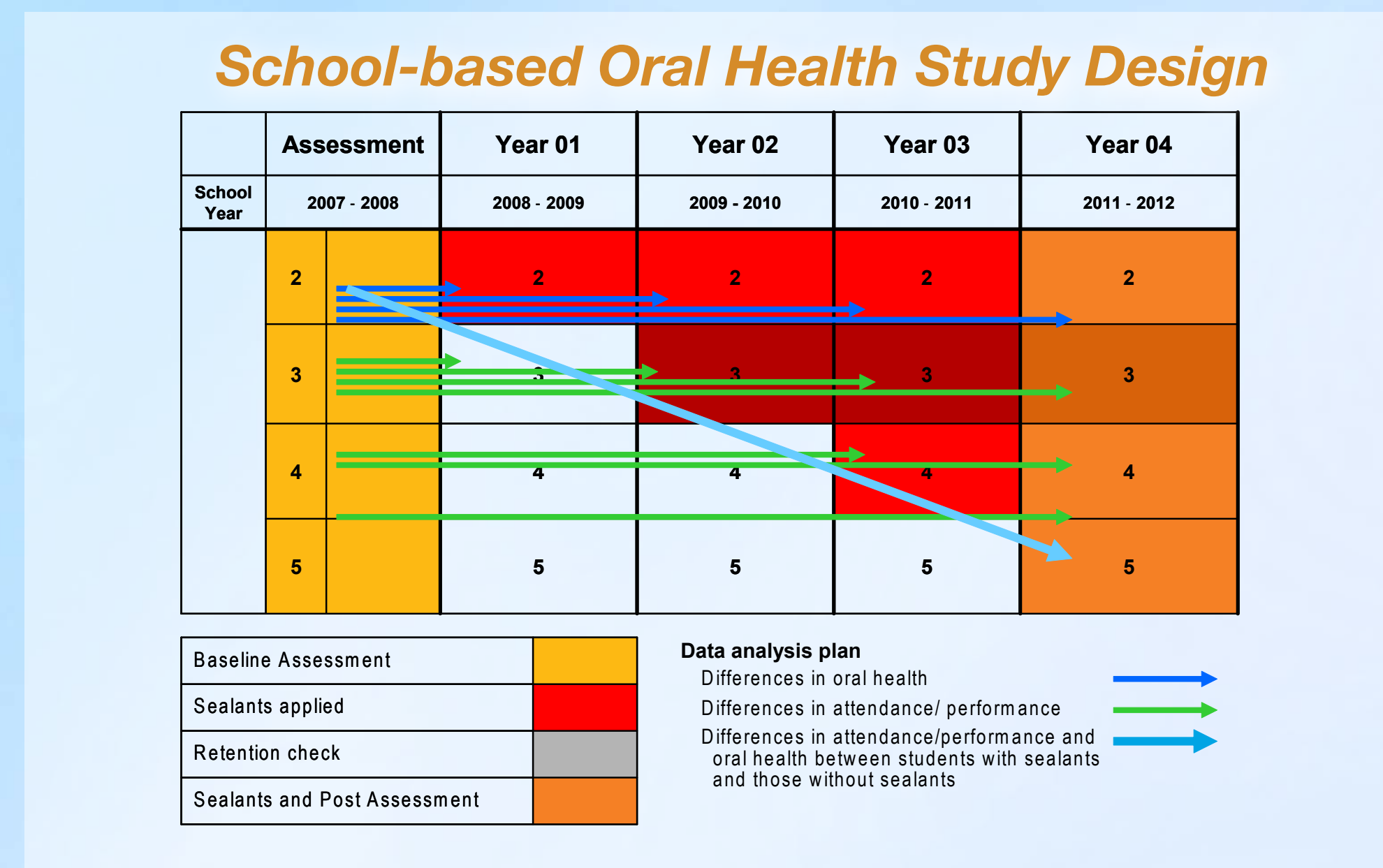
Objectives

The primary objectives of the needs assessment were to determine the burden of disease for planning and implementation of oral health programs and to gather baseline oral health data for the study. In addition, information gathered during the assessment and pursuant interventions were to be used to support collaboration and a continuum of quality services, build a constituency and educate decision makers and the community.

Methods

Preliminary focus groups and pilot programs ensured design of materials, assessment and pursuant intervention. Materials, needs assessment strategies and full study plan were submitted to and approved by the Lehigh Valley Health Network's Institutional Review Board. All materials sent home to parents were printed in both English and Spanish.

Second through fifth grade students from two urban school districts, with parental consent, received oral health screenings. Dental hygienists performing the screenings were trained for consistency using an adapted version of the Basic Screening Survey¹. Parental consent forms included questions regarding dental services. Individual tooth information was recorded and entered into an electronic data base. Electronic tooth data was provided to the school districts where it was linked with demographic information using district-assigned unique identification numbers.



Percentage of Students, Grade 2-5 by Ethnic Group					
	American Indian	Asian/Pac Islander	Black	Hispanic	White
School District A	0.20	1.36	15.13	65.23	18.07
School District B	0.10	6.57	17.86	19.51	55.85

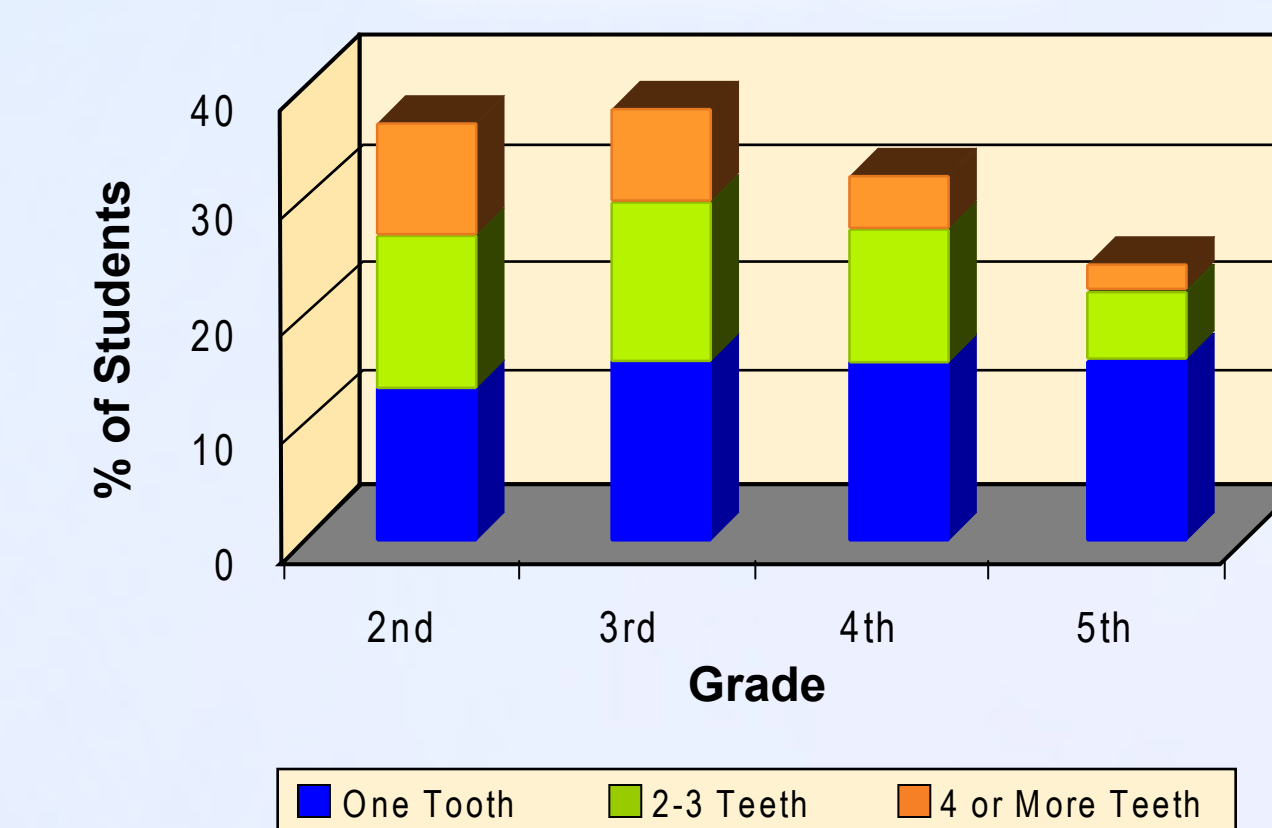
Percentage of Students Eligible for Free & Reduced Lunch			
	Free	Reduced	Total
School District A	75.80	8.92	84.72
School District B	31.08	6.56	37.64

Note. Eligibility guideline include families with incomes at or below 185% of the poverty level².

Results

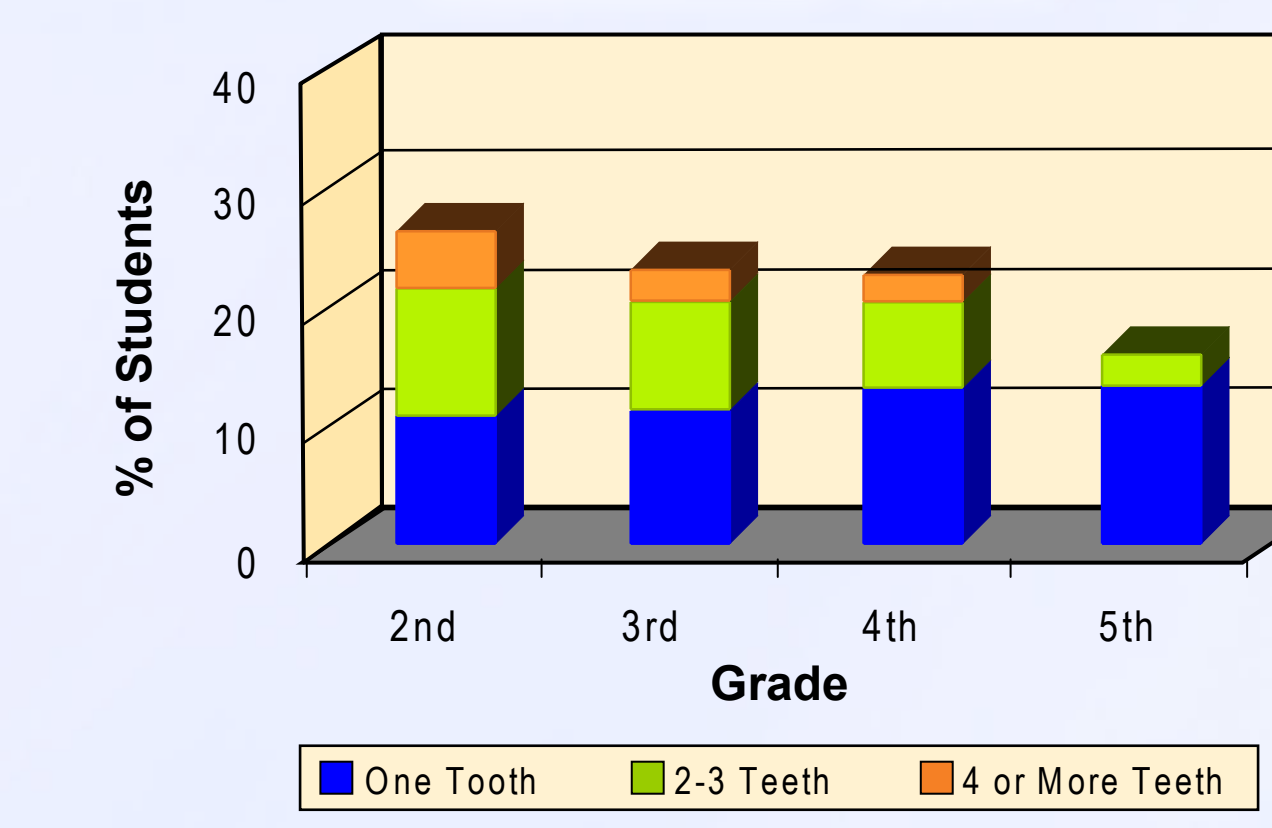
A total of 3,472 students were screened between November 2007 and June 2008. School district A had 2,497 students participate and school district B had 975 students participate. Over 90% of second grade students from both districts had at least one first year molar potentially eligible to receive a sealant, supporting the feasibility of a sealant program.

District A - Students with Untreated Decay Deciduous Teeth

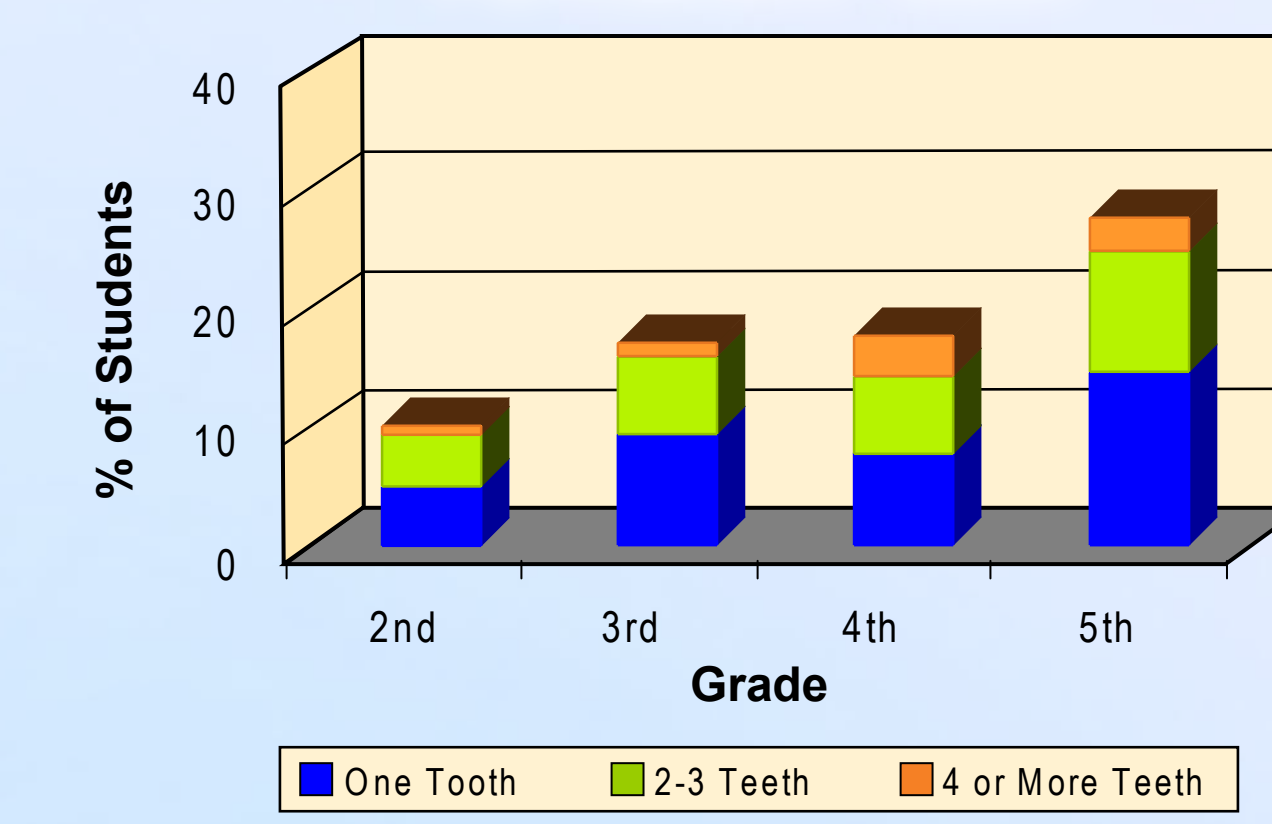


Caption. Students at both school districts presented with a significant amount of decay in deciduous teeth, particularly school district A. These results demonstrate a need not only for preventive intervention but also restorative care.

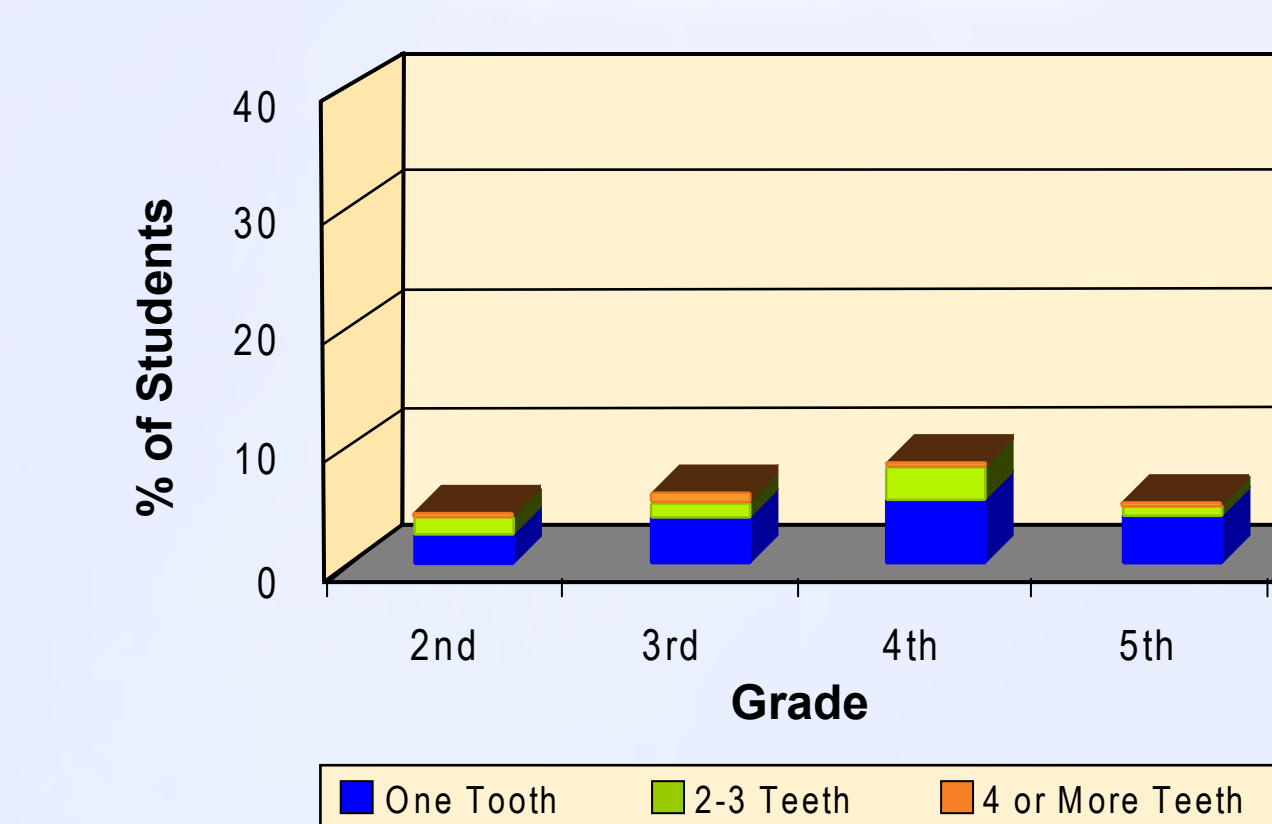
District B - Students with Untreated Decay Deciduous Teeth



District A - Students with Untreated Decay Permanent Teeth



District B - Students with Untreated Decay Permanent Teeth



Caption. School district B had a lower overall percentage of students participating in the national free and reduced lunch program². In addition, school-based restorative services have been made available, on a limited basis, to students in school district B. These two factors are a possible explanation for a lower proportion of untreated decay in permanent molars.

Distribution of decayed, missing and filled first molars, among all students participating in the federal school lunch program, showed little significance (< 4.5%) compared to students not participating in the lunch program. Of students participating in the federal lunch program the Asian/Pacific Islander and Black

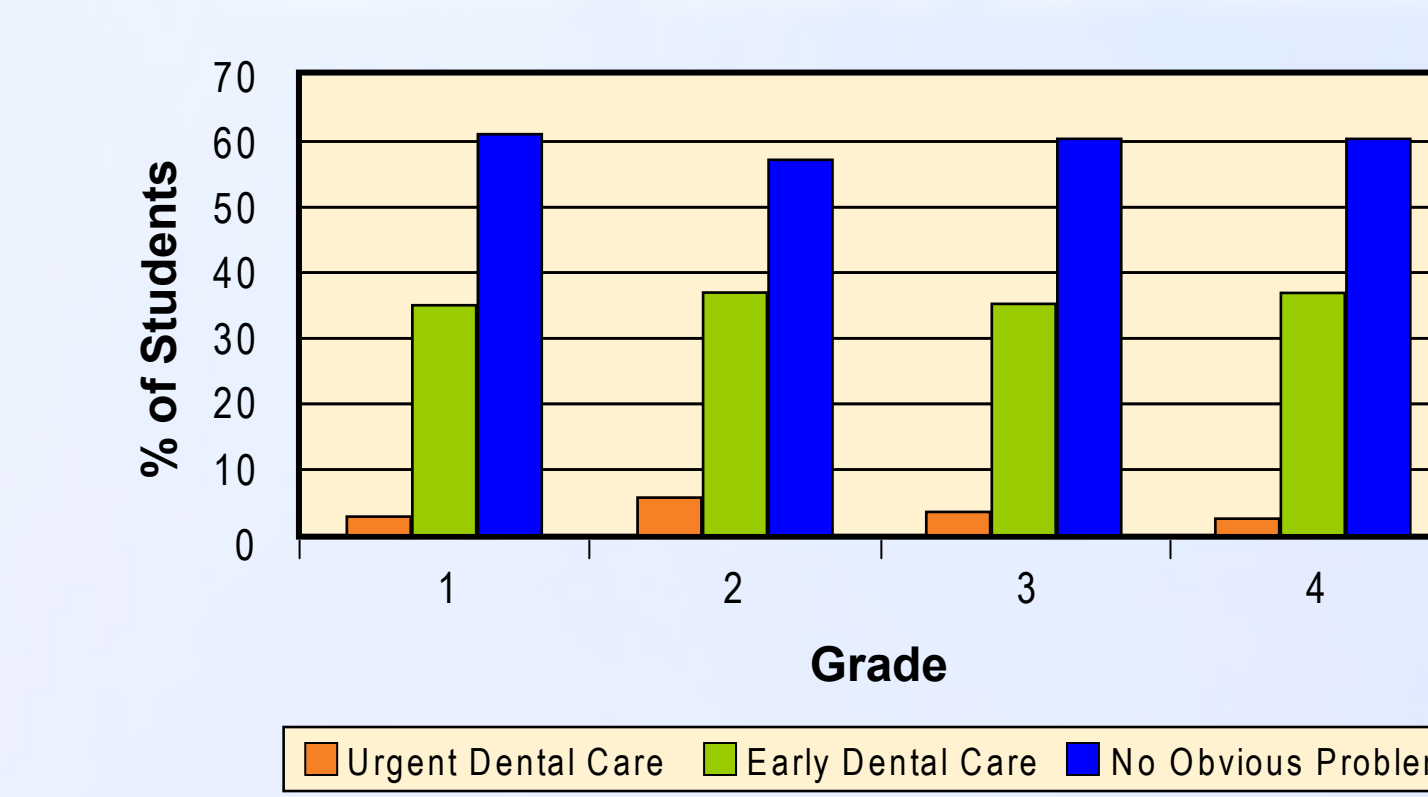
subgroups presented with the highest proportion of decay. Additionally, only 5% fewer students participating in the federal lunch program, compared to students not participating, were identified as having at least one pit and fissure sealant.

Conclusion

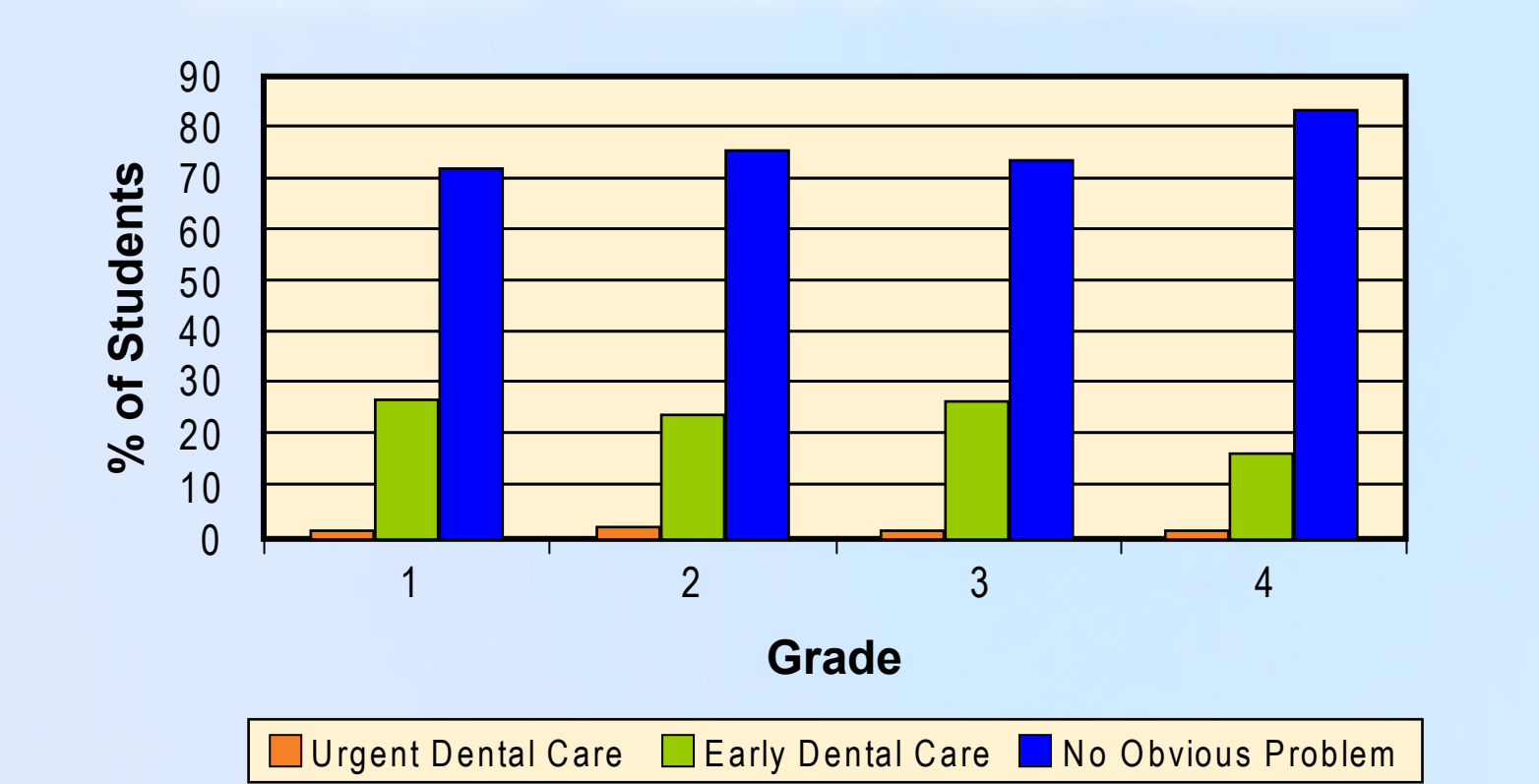
The proportion of students already being treated with pit and fissure sealants is well below the Healthy People 2010 goal of 50%³. In fact, only 23% of students not participating in the federal lunch program have sealants. Access to care, lack of oral health education and the increasing number of families opting out of dental insurance coverage may provide some explanation.

The need for both preventive and restorative dental programs in Lehigh Valley is evident and has been recognized by various regional stakeholders. Over the past three years, addressing access to dental services, particularly for low income children, has become a priority. In addition to the dental sealant program, two new dental vans have been put into operation.

District A - Level of Care Needed



District B - Level of Care Needed



Caption. The level of care needed by students in both districts demonstrated the importance for an improved continuum of care; including early education, preventive and restorative services.

Since completion of this assessment, a dental sealant intervention and education program was initiated in both school districts. All second grade students (1,494) attended a forty minute oral health education program and 579 received sealants.

2008/2009 Results - First Year Sealant Phase				
	% Positive Consent	# Receiving Sealants	% Receiving Sealants	Urgent or Early Care Referred for Treatment
School District A	54.60%	423	44.20%	149
School District B	41.70%	220	32.25%	86

Funding for this study is made possible by a grant from the Dorothy Rider Pool Health Care Trust.



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