Oral Health Status of Florida's Third Grade Students 2021-2022

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Introduction

Oral health plays a vital role in the physical, mental, social, and economic well-being of individuals and populations.[1] Oral health is the health of your mouth, teeth, and gums. It is the key indicator of your overall health and well-being. It affects your ability to smile, speak, chew, swallow, taste, convey emotions, breath, and socialize without pain or discomfort.

According to Healthy People 2030, tooth decay is the most common chronic disease in students and adults in the United States.[2] Throughout this report tooth decay may also be referenced as dental caries, caries, or cavities. Cavities often go untreated, can cause pain and infections that may lead to problems with eating, speaking, playing, and learning, and in rare cases can lead to a severe infection. Untreated oral health problems are also linked to other diseases.

There are many reasons students do not have optimal oral health such as difficulties getting appointments, lack of insurance coverage, or not being able to afford it. Furthermore, limited cross-sectional studies have found that parents of students who have a history of dental pain are more likely to report having missed work or school because of their child's dental problems.[3]

Healthy People 2030 goals include reducing the burden of oral diseases, and increasing access, education, integration into primary care, and surveillance.[2] Oral health data from ongoing surveillance is needed to assist in establishing the burden of oral health disease and improving statewide programmatic planning efforts. To address the need for state level oral health surveillance data, the Florida Department of Health Public Health Dental Program (PHDP) established a surveillance system for monitoring oral health status, risk factors, and access to dental services among various populations.

The PHDP completed two surveillance projects on third grade students (2013-2014 and 2016-2017), completed surveys on Early Head Start and Head Start students (2014-2015), and older adults in congregate meal sites (2015-2016). This is Florida's third statewide oral health surveillance of Florida's third grade students. The following sections of this report detail project specifics including the methodology, results, limitations, and recommendations.

Executive Summary

During the 2021-2022 school year, the PHDP completed its third statewide oral health surveillance project of Florida's third grade students. The initiative titled "Florida 2021-2022 Third Grade Oral Health Screening Project" was conducted in 55 public elementary schools across 25 Florida counties. This was an increase of 13 more schools across six additional counties in comparison to the 2016-2017 surveillance project. The initiative had an overall participation rate of 24.9% for the 2021-2022 school year. Dental screenings were provided by 24 registered dental hygienists contracted through the Florida Dental Hygienists Association, following the Association of State and Territorial Dental Directors' Basic Screening Survey (BSS) protocols.

Key Findings:

- Of the Florida third graders:
  - 29.3% had untreated decay.
  - The prevalence of untreated decay was highest for Hispanic students (32.3%).
  - 51.9% had caries experience (treated, arrested, or untreated decay).
  - More than half (57.9%) of the students were from schools with the highest percentage of students enrolled in free/reduced lunch (>75%) had caries.
  - 36.9% had at least one dental sealant.
  - 27.8% had early dental treatment needs (needs to see a dentist within the next several weeks because of untreated decay or broken restorations).
  - 1.7% had urgent dental treatment needs (needs dental care within 24 to 48 hours because of signs and symptoms that include pain, infection, or swelling).
  - 43.9% indicated they drank no soda in the past 30 days, while 41.4% said they drank soda one to two times per day.
  - 65.0% indicated they drank one to two sugar sweetened beverages each day during the past 30 days.

Methodology – Basic Screening Survey

The Florida 2021-2022 Third Grade Oral Health Screening Project used the BSS tool recommended by the Association of State and Territorial Dental Directors to provide state and local health jurisdictions with a consistent model to monitor oral disease in a timely manner, at the lowest possible cost, with minimum burden on survey participants, and permit comparisons within and between states.[4]

The BSS reports the following measures:

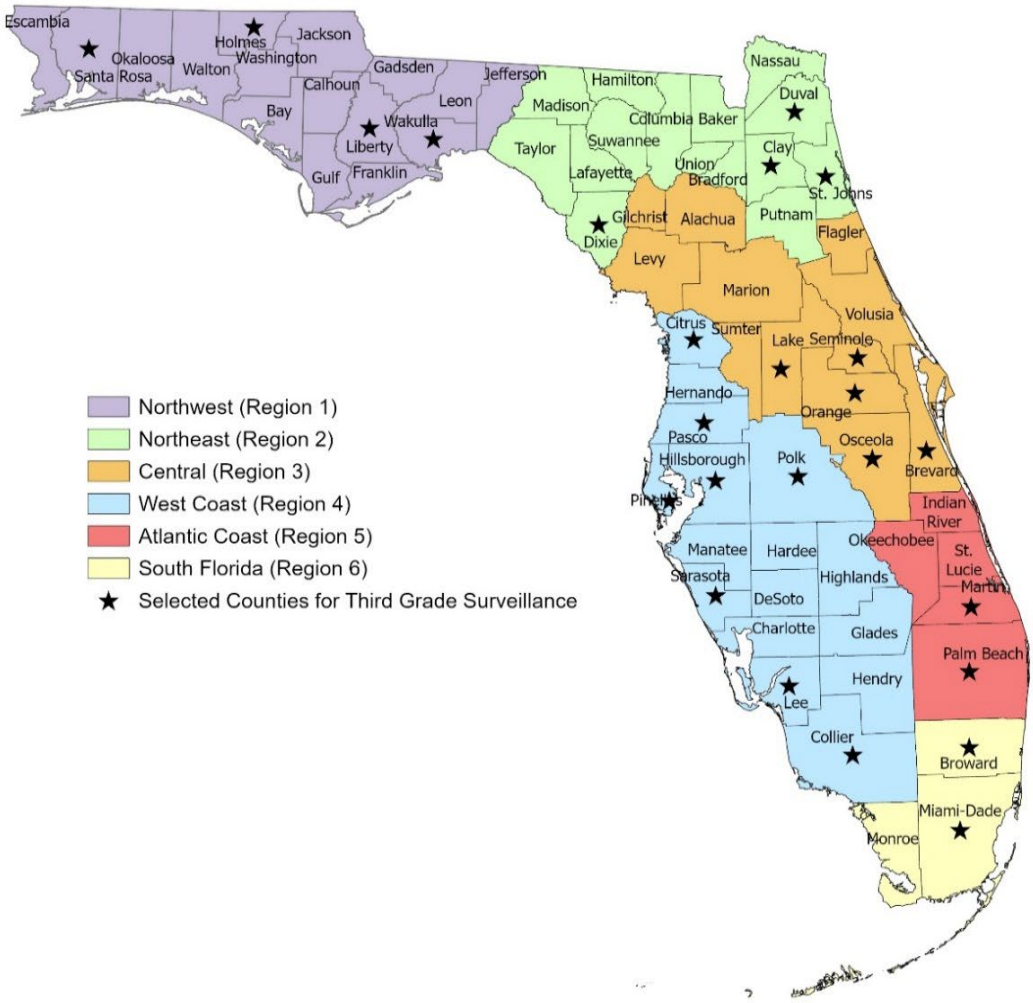
1. Untreated Decay: Screener can readily observe breakdown of the enamel surface.
2. Treated Decay: Screener can observe previous treatment of decay such as amalgam and/or composite restorations, temporary restorations, crowns, or teeth missing due to decay.
3. Arrested Decay: Screener can observe decay that is dark and no longer growing.
4. Caries Experience: Screener can observe the prevalence of untreated or treated decay.
5. Dental Sealants on permanent and/or primary molars: Screener can observe the presence of partially and fully retained dental sealants.
6. Urgency of Need for Dental Care: Screener can observe there is no obvious problem (needs to see dentist for next regular checkup); early dental care (needs to see a dentist within the next several weeks because of untreated decay or broken restorations); or urgent care (needs dental care within 24 to 48 hours because of signs and symptoms that include pain, infection, or swelling).

Sampling Procedure

The American State and Territorial Dental Director data analyst used a Stratified Probability Proportional to Size sampling method of the 2021-2022 school enrollment data provided by the Florida Department of Education to select a representative sample of Florida's public elementary schools to select third grade students. The list of schools was sorted by region and then by school free/reduced lunch (FRL) percentage (the percentage of students in each school who receive FRL) within each region to achieve geographic and socio-economic status stratification.

With a random start, a systematic sampling was used to select a school in each sampling interval by means of a calculated sampling interval used through the cumulative enrollment of the sorted list, for a total of 55 selections. Schools were contacted and returned consents to participate in the survey. Schools that declined to participate were replaced with a random school selection from the same sampling interval.

Figure 1. Florida 2021-2022 Third Grade Oral Health Surveillance Region Map



The regional designations used for the Florida 2021-2022 Third Grade Oral Health Screening Project and the counties selected to participate are shown in Figure 1. The number of public elementary schools selected for each region are listed below:

- Northwest: 4
- Northeast: 5
- Central: 12
- West Coast: 16
- Atlantic Coast: 5
- South: 13

Screening Methods

After obtaining permission from the selected schools, the Florida Dental Hygienists' Association screeners sent home information about the project along with a and consent form and questionnaire. Consent forms (Appendix A), data collection forms (Appendix B), and screening results letters (Appendix C) were created based on BSS guidelines.[4] Consent forms were sent to the participating schools and distributed to the students. Parents were encouraged to complete and return the consent form questionnaire even if they did not want their child to participate in the screening. Only those students returning a positive parental consent form with a parental or guardian signature were screened.

The participating dental hygienists were trained in BSS guidelines and provided screenings to participating students following procedures to prevent the spread of disease as set by the CDC for this type of oral health screening. Dental gloves and masks were worn, and the dental hygienists used a disposable mirror for each child, which was thrown away after each screening. There were 24 hygienists who collected information on the presence of experience (untreated, treated, and arrested decay), dental sealants on primary or permanent molars, and treatment urgency. The screenings were not intended to take the place of a regular dental checkup or an exam by a dentist. Data was collected at the student level in accordance with BSS guidance, not the tooth level.

This survey was cross-sectional (looking at a population at a single point in time) and descriptive (intended to determine estimates of oral health status for a defined population). Data collected on screening day (via paper records) was entered into Florida's Linked Oral Status System database, verified, and reports were analyzed. The PHDP staff validated 100% of the screening data by corroborating the paper records to the electronic data.

Data Analysis

Data analysis for this surveillance project was completed using Statistical Analysis Software (SAS) version 9.4, a high-level and efficient data analysis tool. Outcomes were weighted and adjusted to account for sample selection and participation rate based upon the Stratified Probability Proportional to the size sample design. This design ensures the results presented represent the entire third grade population, with a 95% Confidence Interval (C.I.) of certainty. SAS was utilized to clean the data after validating entries, specifically removing records if students were absent or declined oral screening on the designated day. Demographic indicators of the participating students were obtained from the survey questions on the parental consent form and used to analyze the distribution of these indicators among the third-grade population. Eligibility for FRL was obtained from the Department of Education school list.

Results

This oral health surveillance project had an overall participation rate of 24.9% and a positive consent rate of 81.7%. Out of a total of 6,979 students enrolled in third grade across the 55 participating schools, 1,740 (24.9%) completed and returned their consent forms. Among these returned consent forms, 1,422 (81.7%) students had positive parental consent. Ultimately 1,328 (76.3%) students were present to participate and complete oral screening on scheduled school visits.

Demographic Characteristics of Participating Students

Table 1. Demographic Characteristics of Students Participating in Florida's 2021-2022 Third Grade Oral Health Screening Project

Characteristic	Number (%)
Total Participants	1,328
Age (Years)	
7	8 (0.6%)
8	669 (50.4%)
9	589 (44.4%)
10	57 (4.3%)
11	2 (0.1%)
Missing	3 (0.2%)
Gender	
Male	612 (46.1%)
Female	707 (53.2%)
Missing	9 (0.7%)
Race/Ethnicity	
White	480 (36.1%)
Black/African American	168 (12.7%)
Hispanic	441 (33.2%)
Asian	37 (2.8%)
Multi-racial	103 (7.8%)
Other	41 (3.1%)
Missing	58 (4.4%)
Dental Insurance Coverage	
Private Insurance	395 (27.9%)
Medicaid	563 (44.7%)
Other	255 (18.7%)
Don't Know/Don't Remember	17 (1.4%)
More than one	38 (2.4%)
No response	60 (4.9%)

The breakdown of demographic characteristic frequencies of the participating students is shown in Table 1. Note that these percentages are not weighted. Most of the participating students were 8 years old (50.4%), female (53.2%), White (36.1%), and had Medicaid coverage (44.7%).

Oral Health Indicators

The screening data was weighted to achieve regional and state-level estimates of the various indicators. The data shown in the rest of the report represents the entire third grade population attending public schools in Florida. Prevalence estimates are provided along with 95% C.I.

Figure 2. Health Status (Percentage and 95% C.I.) of Florida's Third Grade Students 2021-2022 (Untreated Decay, Caries Experience, and Dental Sealants)

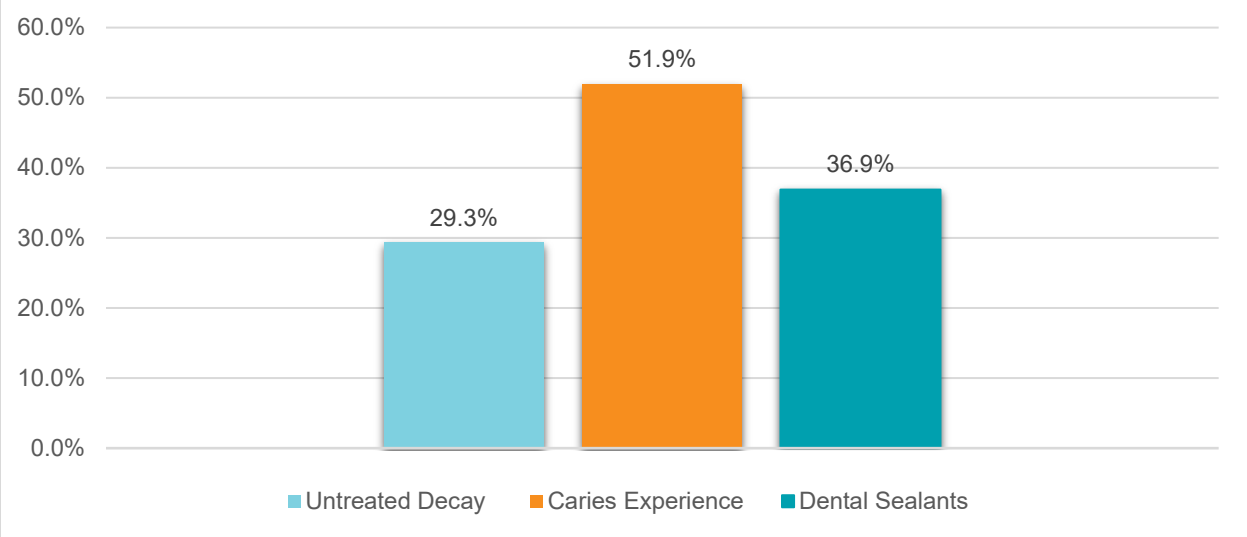
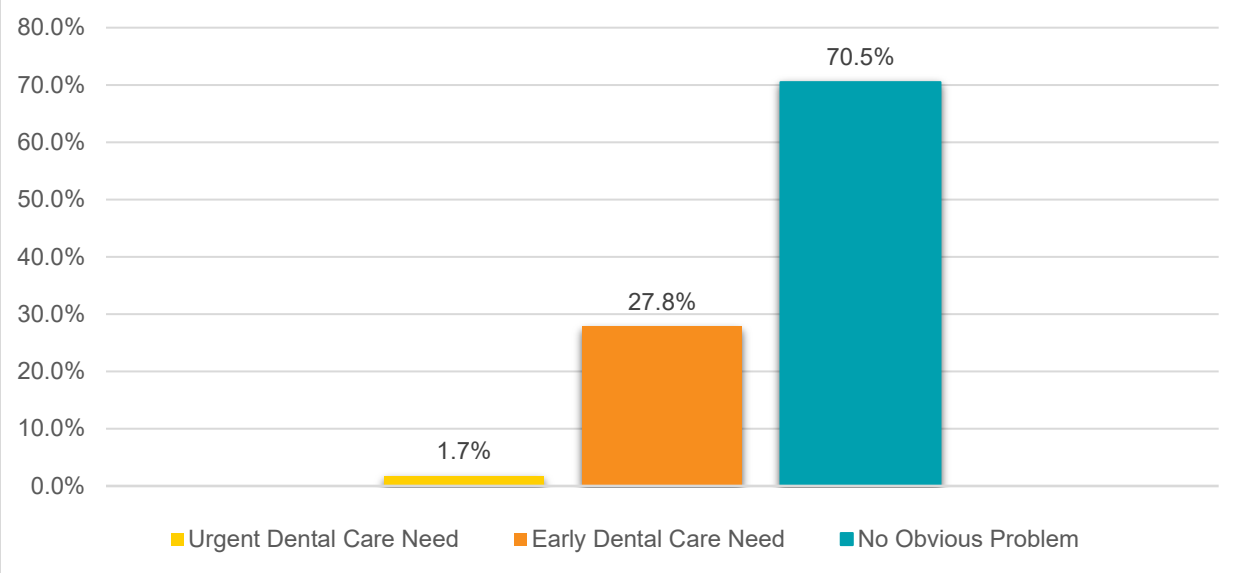


Figure 3. Health Status (Percentage and 95% C.I.) of Florida's Third Grade Students 2021-2022 (Urgent Dental Care Need, Early Dental Care Need, and No Obvious Problem)



Overall results showed a total of 29.3% of third graders had untreated decay, 51.9% had caries experience, 36.9% had at least one dental sealant, 27.8% had early dental care needs, and 1.7% had urgent dental care needs (Figure 2 and Figure 3).

Table 2. Prevalence (95% C.I.) of the Oral Health Indicators, by Age

Age	Caries Experience	Untreated Decay	Dental Sealants	Early Need for Dental Care	Urgent Need for Dental Care
7	19.1% (0.0, 50.0)	9.5% (0.0, 25.0)	19.1% (0.0, 50.0)	9.6% (0.0, 25.0)	0.0% (0.0, 0.0)
8	53.2% (47.1, 59.3)	27.8% (22.7, 32.9)	36.0% (30.4, 41.6)	25.8% (20.7, 30.9)	1.9% (0.2, 3.8)
9	52.0% (46.4, 57.3)	30.8% (25.5, 36.2)	38.6% (32.9, 44.3)	29.7% (24.0, 35.3)	1.7% (0.4, 3.0)
10	39.2% (23.9, 54.6)	28.9% (14.0, 43.9)	30.4% (17.4, 43.4)	30.0% (15.3, 44.6)	0.0% (0.0, 0.0)
11	100% (100, 100)	100% (100, 100)	50.8% (0.0, 100.0)	100% (100, 100)	0.0% (0.0, 0.0)

Table 2 lists the prevalence estimate percentages and their confidence interval by age and by oral health indicator. Students aged 9 had the highest prevalence of untreated decay (30.8%) and dental sealants (38.6%), and students aged 8 had the highest prevalence of caries experience (53.2%).

Figure 4. Percentage of Untreated Decay among Florida's Third Grade Students 2021-2022, by Race/Ethnicity

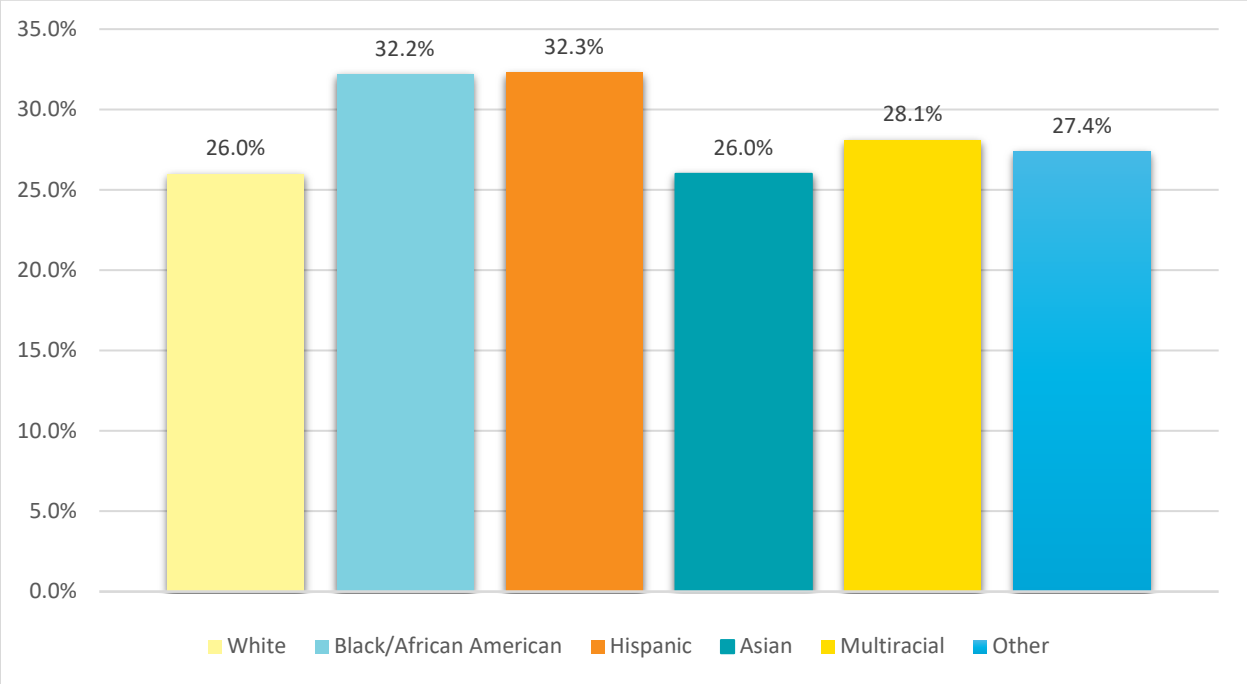
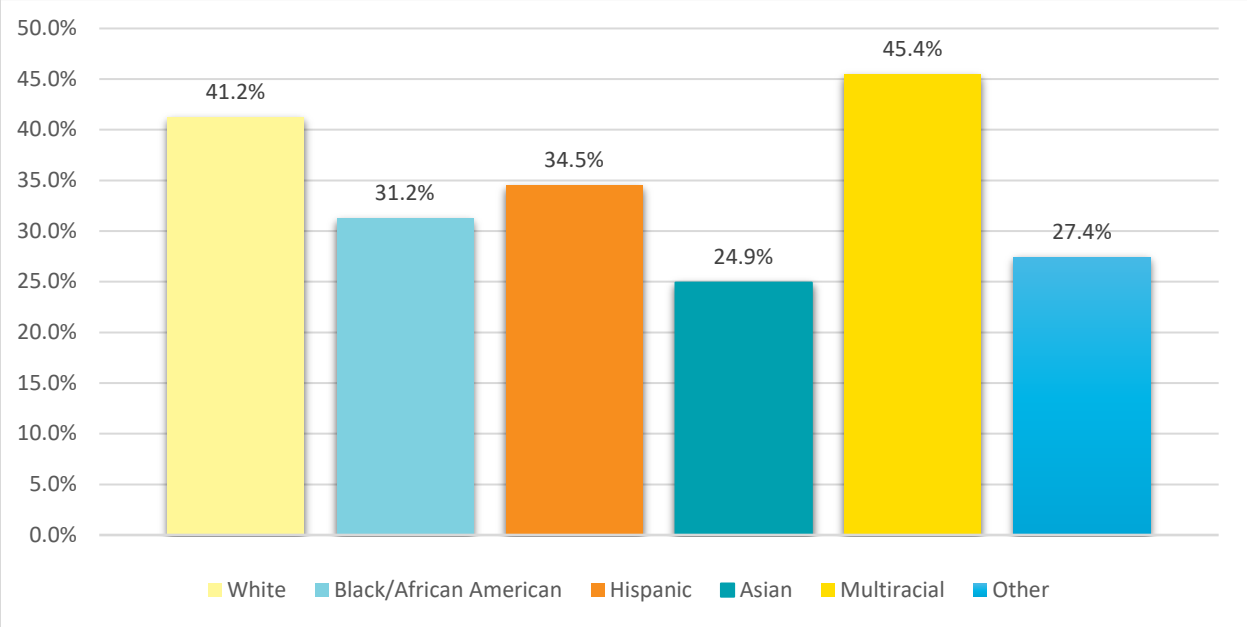


Figure 5. Percentage of Dental Sealants among Florida's Third Grade Students 2021-2022, by Race/Ethnicity



As seen in Figures 4 and 5, Black/African American and Hispanic students had the highest percentage of untreated decay, whereas Multi-Racial and White students had the highest percentage of dental sealants.

Table 3. Prevalence (95% C.I.) of the Oral Health Indicators, by Race/Ethnicity

Race/Ethnicity	Caries Experience	Untreated Decay	Dental Sealants	Early Need for Dental Care	Urgent Need for Dental Care
White	48.6% (41.1, 56.1)	26.0% (19.4, 32.6)	41.2% (35.2, 47.2)	25.6% (18.9, 80.0)	1.1% (0.0, 20.3)
Black/African American	58.1% (48.6, 67.5)	32.2% (24.1, 40.5)	31.2% (22.2, 40.2)	31.1% (23.8, 38.3)	1.9% (0.1, 3.9)
Hispanic	51.9% (43.9, 59.9)	32.3% (24.9, 39.7)	34.5% (27.3, 41.6)	29.7% (22.3, 37.2)	2.7% (0.0, 5.5)
Asian	45.6% (30.9, 60.3)	26.0% (12.3, 39.8)	24.9% (6.8, 43.1)	18.7% (4.9, 32.5)	0.0% (0.0, 0.0)
Multiracial	51.4% (37.6, 65.3)	28.1% (13.2, 42.9)	45.4% (32.4, 59.4)	27.0% (12.3, 41.7)	1.1% (0.0, 3.2)
Other	55.9% (39.4, 72.3)	27.4% (15.4, 39.4)	38.2% (19.9, 56.5)	29.3% (17.1, 41.5)	0.0% (0.0, 0.0)

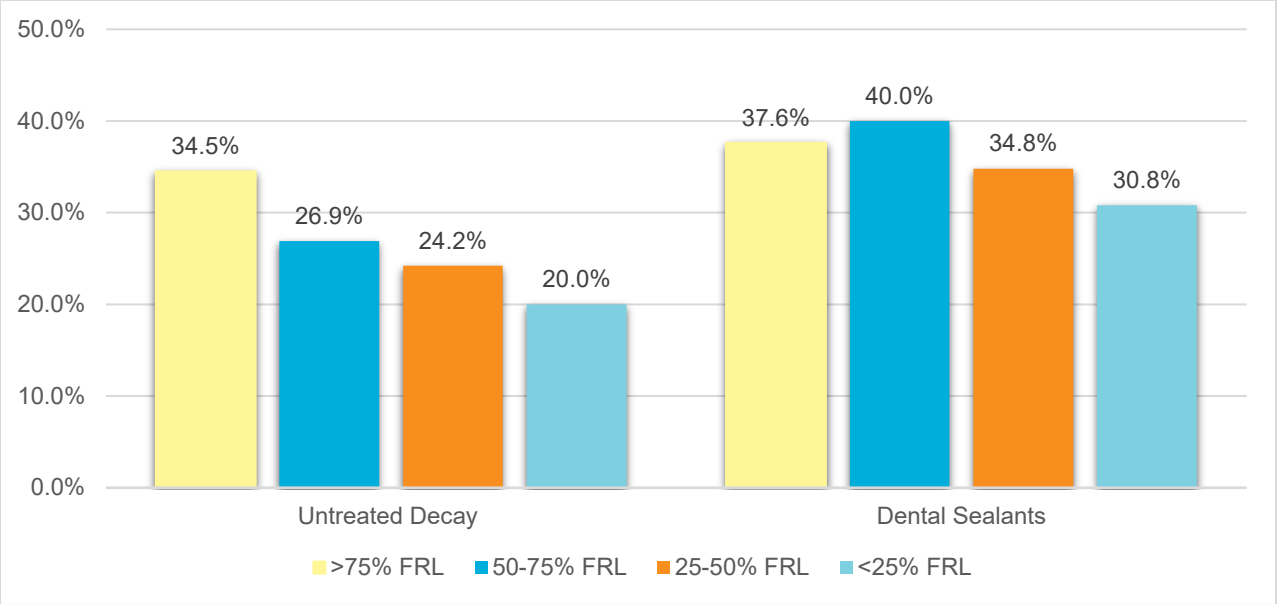
Table 3 shows the prevalence estimates and 95% C.I. for all oral health indicators by race/ethnicity. Hispanic students had the highest percentage of untreated decay (32.3%) when compared to students of other racial and ethnic groups. Asian students had the lowest percentage of dental sealants at 24.9%.

Table 4. Prevalence (95% C.I.) of the Oral Health Indicators, by Region

Region	Caries Experience	Untreated Decay	Dental Sealants	Early Need for Dental Care	Urgent Need for Dental Care
Atlantic Coast	60.2% (51.4, 69.1)	33.3% (19.6, 46.8)	30.2% (18.8, 41.4)	28.7% (14.1, 43.2)	2.7% (0.1, 5.3)
Central	44.8% (39.5, 50.1)	31.2% (25.3, 37.1)	42.5% (29.2, 55.8)	28.0% (21.8, 34.3)	3.9% (0.5, 7.4)
Northeast	47.3% (41.5, 53.1)	24.4% (14.1, 34.7)	31.8% (28.2, 35.5)	21.6% (9.3, 33.9)	4.0% (0.0, 12.1)
Northwest	53.5% (34.1, 72.9)	27.9% (18.1, 37.7)	33.8% (21.1, 46.6)	29.2% (19.6, 38.9)	0.0% (0.0, 0.0)
South Florida	52.2% (40.2, 64.3)	27.2% (19.3, 35.1)	33.4% (21.8,44.9)	26.2% (18.6, 33.8)	1.0% (0.0, 3.0)
West Coast	55.1% (45.4, 64.8)	30.2% (21.1, 39.4)	40.1% (31.7, 48.6)	30.2% (21.0, 39.4)	0.2% (0.0, 0.7)

To observe regional estimates and assess if geographic disparities exist, the survey sample was stratified by the Florida Department of Health into six regions (Figure 1 on page 4) with prevalence percentages and confidence intervals for oral health indicators shown in Table 4. The Atlantic Coast region had the highest rates of untreated decay (33.3%), and caries experience (60.2%), while the West Coast region had the highest early need for dental care (30.2%) in the state, and the Central region had the highest rate of dental sealants (42.5%). The Central region had the lowest rate of caries experience (44.8%), and the Northeast region had the lowest rate of untreated decay (24.4%).

Figure 6. Percentage of Untreated Decay and Dental Sealants among Florida's Third Grade Students 2021-2022, by School Free and/or Reduced Lunch Status



The FRL percentage at the selected schools was used as a proxy for individual student family income status. These variables are highly correlated with poor oral health outcomes.

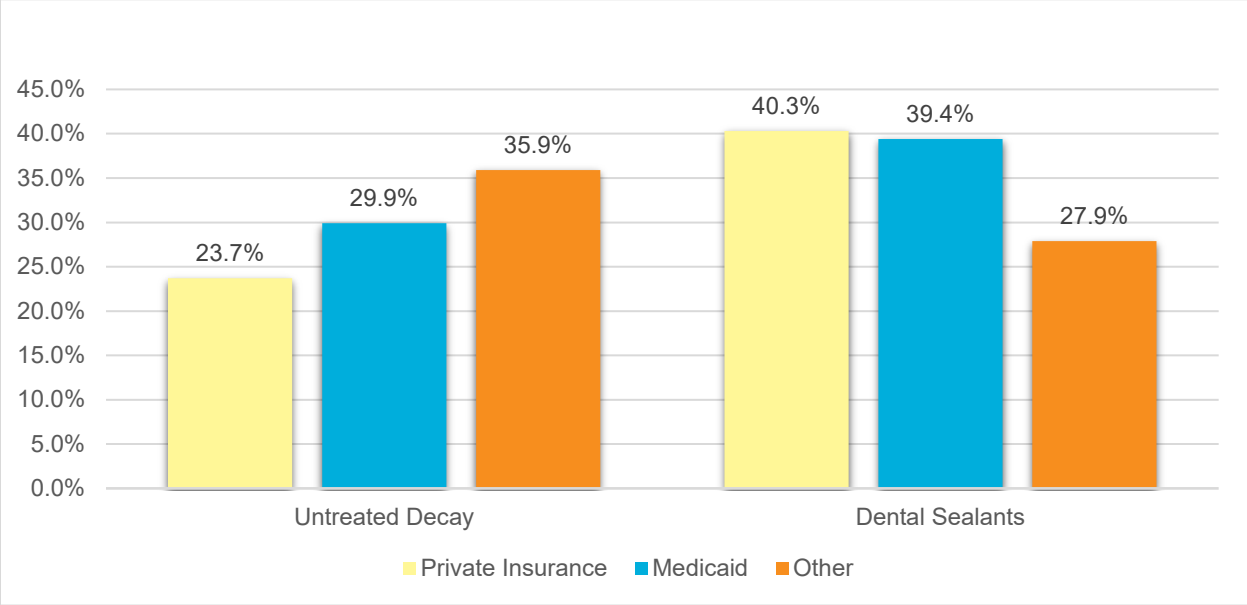
There was a direct relationship observed between most oral health indicators and FRL school percentage (Figure 6 and Table 5). Caries experience, untreated decay, early and urgent dental care were highest for those in schools with the highest percentage of FRL. The percentage of dental sealants was highest in the FRL 50-75% (40.0%) and lowest in the FRL <25% category (30.8%).

Table 5. Prevalence (95% C.I.) of the Oral Health Indicators, by Free/Reduced Lunch Percentage of School

Free/Reduced Lunch (FRL) Percentage	Caries Experience	Untreated Decay	Dental Sealants	Early Need for Dental Care	Urgent Need for Dental Care
FRL >75% ***Lowest income***	57.9% (49.5, 66.3)	34.5% (27.8, 41.2)	37.6% (29.7, 45.5)	32.9% (25.8, 40.0)	2.3% (0.2, 4.4)
FRL 50-75%	50.3% (41.8, 58.8)	26.9% (19.8, 34.1)	40.0% (32.4, 47.6)	24.9% (18.9, 30.9)	2.2% (0.0, 4.8)
FRL 25-50%	44.1% (35.6, 52.5)	24.2% (17.6, 30.8)	34.8% (23.5, 46.0)	23.6% (17.2, 30.2)	0.8% (0.0, 1.9)
FRL <25% ***Highest income***	42.4% (31.7, 53.1)	20.0% (11.8, 28.3)	30.8% (20.3, 41.5)	18.4% (10.8, 26.1)	0.0% (0.0, 0.0)

Prevalence estimates and 95% C.I. for all the oral health indicators by the percentage of students receiving free/reduced lunch are provided in Table 5.

Figure 7. Percentage of Untreated Decay and Dental Sealants among Florida's Third Grade Students 2021-2022, by Insurance Status



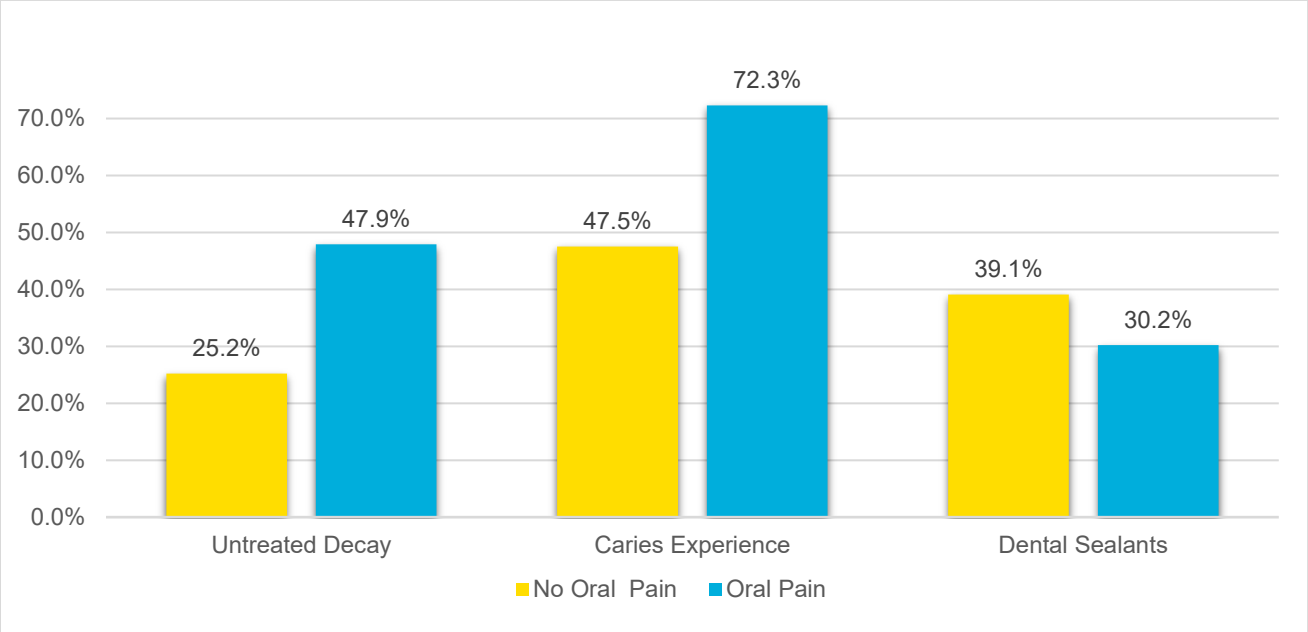
Dental insurance status can affect access to care and overall oral health (Figure 7).

Table 6. Prevalence (95% C.I.) of the Oral Health Indicators, by Dental Insurance Status

Dental Insurance Status	Caries Experience	Untreated Decay	Dental Sealants	Early Need for Dental Care	Urgent Need for Dental Care
Private Insurance	45.3% (38.7, 51.9)	23.7% (18.1, 29.2)	40.3% (33.9, 46.7)	29.9% (15.7, 26.1)	2.1% (0.0, 5.0)
Medicaid	54.6% (47.6, 61.8)	29.9% (23.9, 35.8)	39.4% (33.5, 45.2)	30.3% (24.3, 36.2)	0.6% (0.0, 1.3)
Other	52.9% (43.2, 62.5)	35.9% (27.9, 43.8)	27.9% (20.2, 35.5)	31.8% (23.5, 40.1)	3.6% (0.2, 7.0)

Table 6 shows the prevalence and C.I. of students by dental insurance status. Students with private dental insurance had the lowest rate of untreated decay and dental caries experience, and the highest rate of dental sealants. Students who had no insurance (Other) had the highest rate of untreated decay (35.9%) and the lowest rate of dental sealants (27.9%).

Figure 8. Percentage of Untreated Decay, Caries Experience, and Dental Sealants among Florida's Third Grade Students 2021-2022, by Oral Pain



Untreated decay can lead to oral pain. (Figure 8). Students who had untreated decay often experienced oral pain when biting or chewing, with 47.9% reporting such discomfort. Among students with caries experience, which includes untreated, treated, and arrested decay, 72.3% indicated they had oral pain. However, the difference between those experiencing pain and those without it was smaller, as many decayed teeth had been treated. Additionally, 39.1% of students with dental sealants reported no oral pain.

Table 7. Prevalence (95% C.I.) of the Oral Health Indicators, by Oral Pain

Oral Pain Status	Caries Experience	Untreated Decay	Dental Sealants	Early Need for Dental Care	Urgent Need for Dental Care
No Oral Pain	47.5% (42.8, 52.1)	25.2% (21.3, 29.1)	39.1% (34.1, 44.1)	24.3% (20.5, 28.0)	1.2% (0.1, 2.2)
Oral Pain	72.3% (62.2, 82.5)	47.9% (36.0, 56.7)	30.2% (21.1, 39.4)	43.3% (32.4, 54.3)	5.8% (0.0, 12.6)

Prevalence estimates and 95% C.I. for all the oral health indicators by the Oral Pain are provided in Table 7.

Other Indicators from Parent Questionnaire

The following questions were asked on the parent questionnaire and consent form for the Florida Third Grade Oral Health Screening Project (Appendix A). While supplemental to the BSS, these questions provide additional information about the current oral health status and oral health history of the third-grade population. These graphs include all submitted consent forms, even if the student was not screened, and the data is weighted. The percentages will not be 100% due to the multiple responses or some respondents not answering the question.

Chronic Conditions and/or Developmental Delays

Question: Does your child have a history of any chronic conditions and/or developmental delays?

Table 8. Chronic Conditions and/or Developmental Delays among Florida's Third Grade Students, 2021-2022

Condition	Percentage (95% C.I.)
Asthma	6.9% (5.5, 8.3)
Attention Deficit Hyperactivity Disorder (ADHD)	10.2% (8.6, 11.9)
Cancer	0.2% (0.0, 0.5)
Diabetes	0.3% (0.0, 0.6)
Obesity	1.2% (0.6, 1.8)
Special Health Care Needs	0.9% (0.4, 1.5)
Other Condition	4.3% (3.3, 5.5)
No Condition	75.9% (73.7, 78.3)
Don't Know/Don't Remember	4.5% (3.4, 5.6)

As highlighted in Table 8, most students screened (75.9%) had no chronic conditions or developmental delays, while 10.2% were identified with ADHD, and 6.9% had asthma.

Time Since Last Dental Visit

Question: How long has it been since your child last visited a dentist? Please include dentists such as orthodontists, oral surgeons, and all other dental specialists, as well as dental hygienists.

Figure 9. Time Since Last Dental Visit among Florida's Third Grade Students, 2021-2022

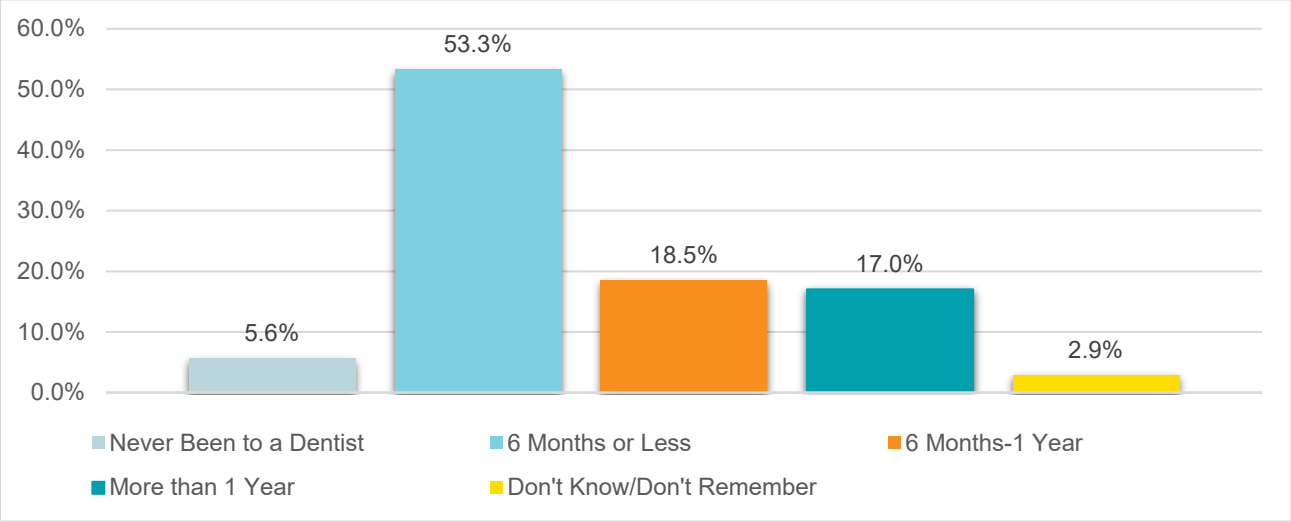


Figure 9 shows that 53.3% of the students had seen a dental provider within the past six months or less, and 5.6% indicated they had never been to a dentist.

Reported Oral Pain

Question: During the past six months, did your child have oral pain more than once when biting or chewing?

Figure 10. Percent of Oral Pain among Florida's Third Grade Students, 2021-2022

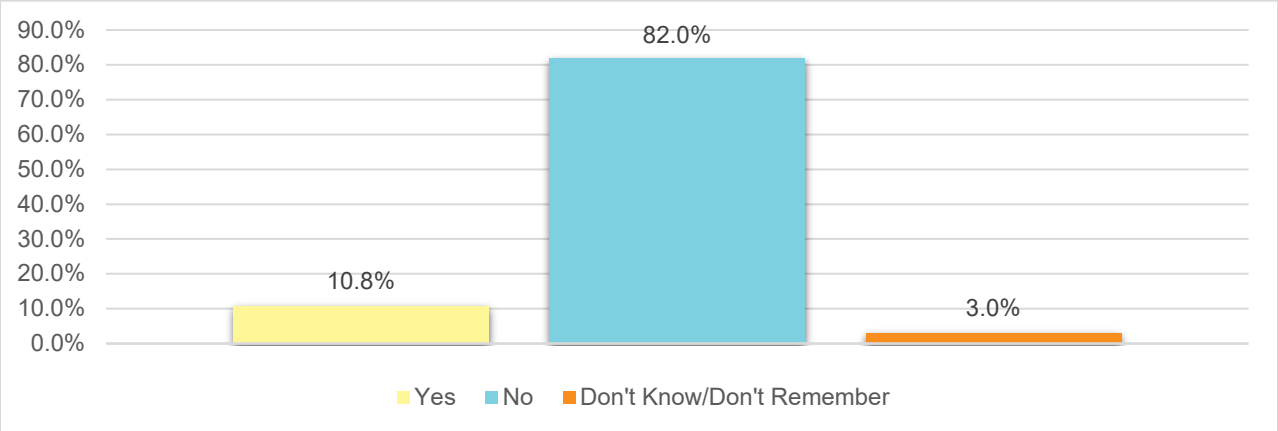


Figure 10 shows that 82.0% of students did not report oral pain in the past six months, while 10.8% reported oral pain.

Reason for Last Dental Visit

Question: What was the main reason that your child last visited a dentist?

Figure 11. Main Reason for Last Dental Visit among Florida's Third Grade Students, 2021-2022

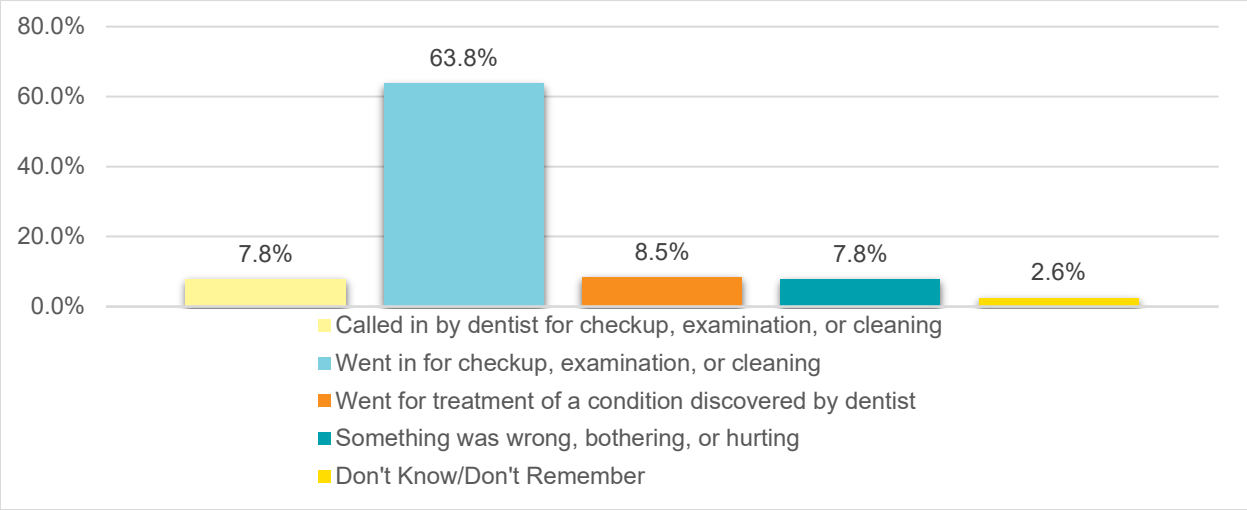


Figure 11 shows 63.8% reported their last dental visit was for a checkup, examination, or cleaning, and 7.8% reported something was wrong, bothering, or hurting them.

Frequency of Drinking Regular Soda or Pop

Question: During the past 30 days, how often did your child drink regular soda or pop?

Figure 12. Frequency of Regular Soda or Pop Consumption Among Florida's Third Grade Students in the Past 30 Days, 2021-2022

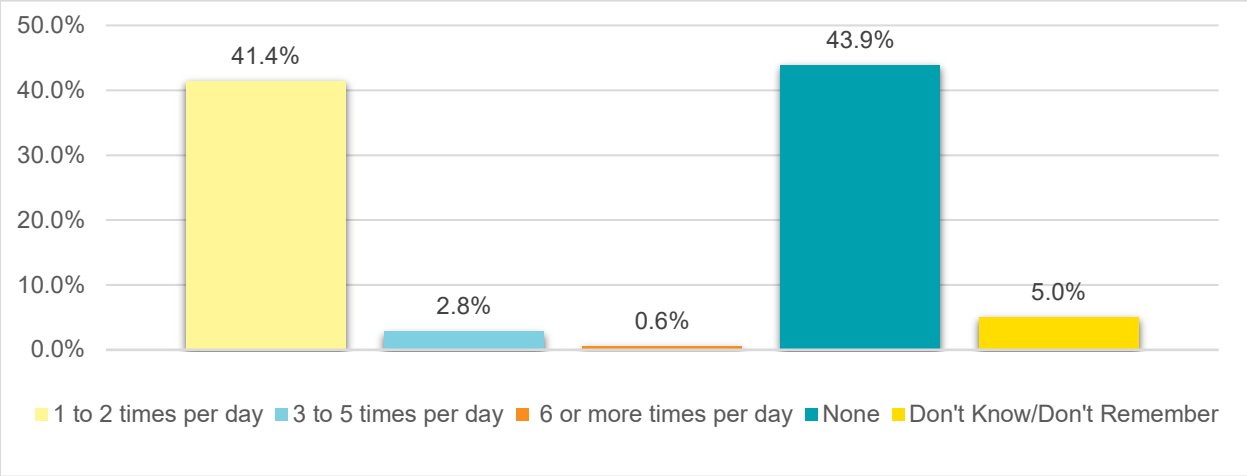
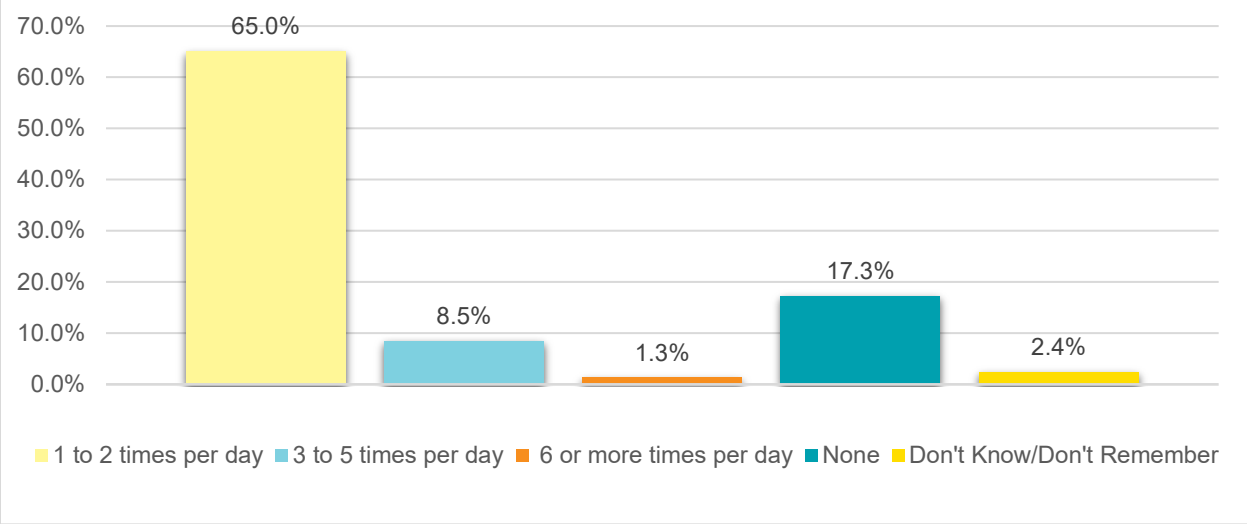


Figure 12 shows 43.9% had no regular soda or pop in the past 30 days, while 41.4% reported they drank soda or pop one to two times per day.

Frequency of Drinking Sugar-Sweetened Drinks

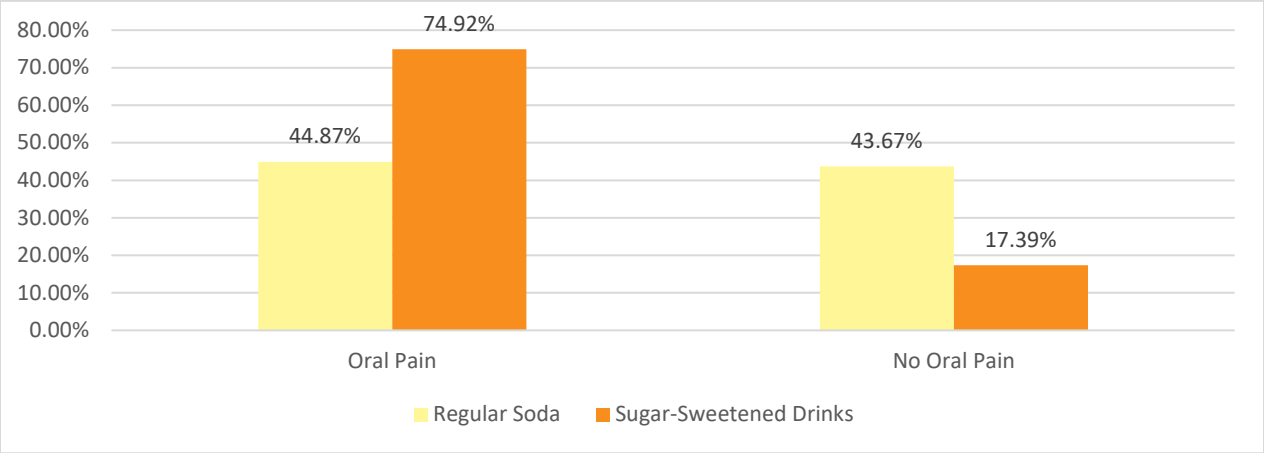
Question: During the past 30 days, how often did your child drink sugar-sweetened drinks such as fruit drinks (including 100% fruit juice, Kool-Aid, and lemonade), sweet tea, coffee, sweetened milk and milk alternatives, and sports or energy drinks (such as Gatorade and Red Bull)?

Figure 13. Frequency of Sugar-Sweetened Drinks Consumption Among Florida's Third Grade Students in the Past 30 Days, 2021-2022



Correlation Between Drinking Regular Soda or Pop, Sugar-Sweetened Drinks and Oral Pain

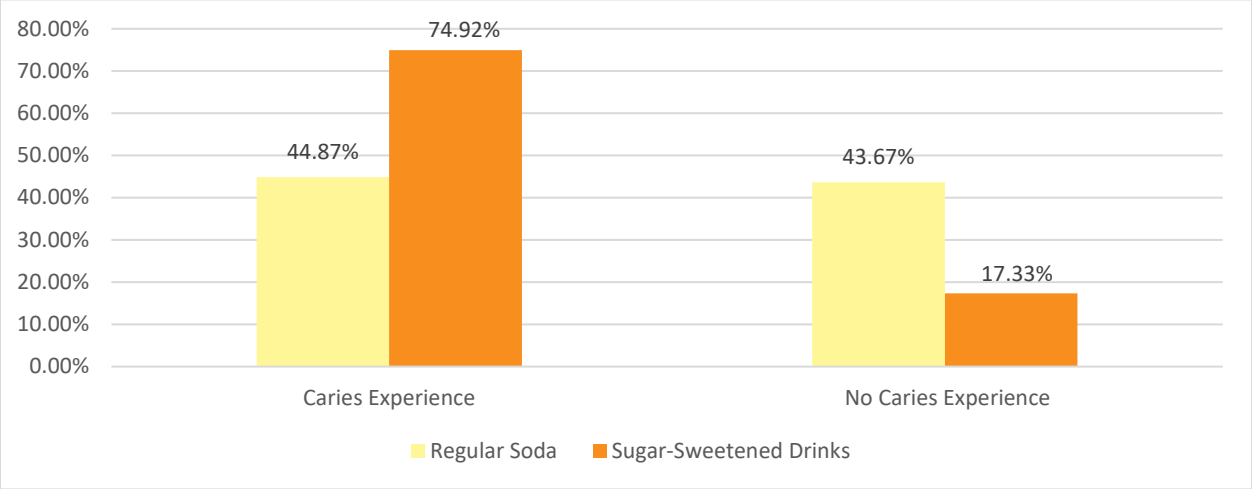
Figure 14. Correlation Between Soda or Pop, Sugar-Sweetened Drinks Consumption and Oral Pain Among Florida's Third Grade Students in the Past 30 Days, 2021-2022



Oral pain is higher (82%) in the individuals who consume soda, pop, or sugar-sweetened drinks one or more times a day compared to those who do not (10.75%).

Correlation Between Drinking Regular Soda or Pop, Sugar-Sweetened Drinks and Caries Experience

Figure 15. Correlation Between Soda or Pop, Sugar-Sweetened Drinks Consumption and Oral Pain Among Florida's Third Grade Students in the Past 30 Days, 2021-2022



Caries experience is significantly higher (99.47%) in individuals who consume soda, pop, or sugar-sweetened drinks one or more times a day compared to those who do not (0.53%).

Emergency Room Visit

Question: During the past 12 months, did your child visit the emergency department (or emergency room) because of any oral or dental related issues?

Figure 16. Emergency Room Visits because of Oral Issues among Florida's Third Grade Students, 2021-2022

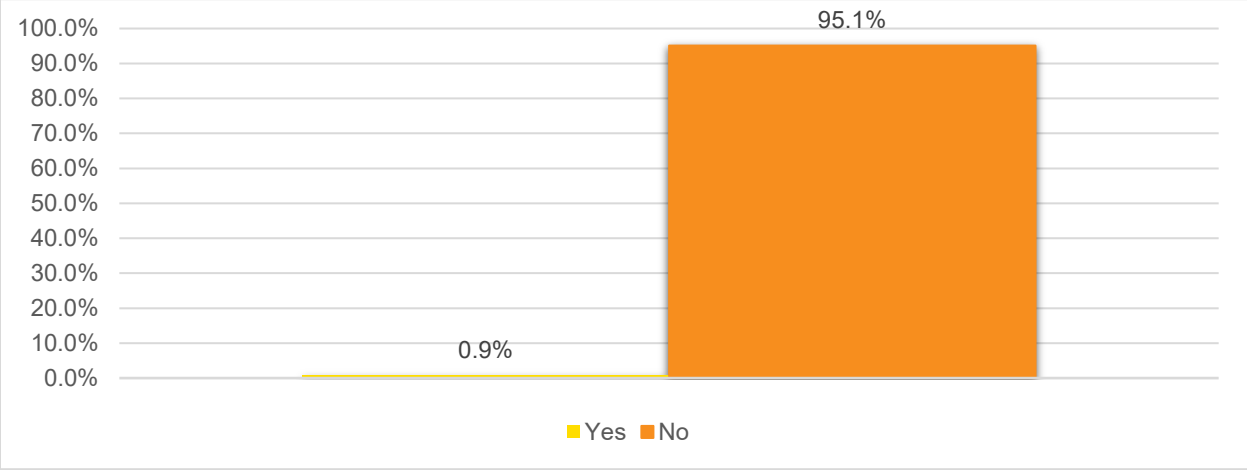


Figure 16 shows 95.1% did not visit the emergency room due to oral issues in the past 12 months. The percentages do not sum to 100% because some survey participants did not provide a response to this question.

Reason for Not Seeking Care

Question: During the past 12 months, what was the main reason your child could not get dental care when he or she needed it?

Table 9. Main Reason for Not Seeking Care among Florida's Third Grade Students, 2021- 2022

Main Reason	Percentage (95% C.I.)
Could not afford it	4.0% (2.9, 5.0)
No insurance	7.2% (5.8, 8.6)
Dentist did not accept Medicaid/health insurance	3.4% (2.5, 4.4)
Difficulty in getting appointment	8.1% (6.6, 9.5)
Not a serious enough problem	3.2% (2.3, 4.2)
No way to get there (transportation)	1.4% (0.8, 2.1)
Didn't know where to go	2.8% (1.9, 3.7)
Speak a different language than dentist	0.6% (0.2, 1.0)
Other	6.5% (5.2, 7.8)
Don't know/Don't Remember	59.4% (57.0, 62.1)

In Table 9, 59.4% indicated they did not know or remember why they did not seek care, 8.1% indicated they had difficulty getting an appointment, and 7.2% indicated lack of insurance was the reason.

Days of School Missed

Question: During the past 12 months, how many days of school did your child miss for oral health related problems, not including days missed for routine oral health care (cleaning, checkup, etc.)?

Table 10. Days of School Missed among Florida's Third Grade Students, 2021-2022

Days of School (N)	Percentage (95% C.I.)
0	84.0% (82.1, 86.0)
1	5.3% (4.1, 6.6)
2	2.7% (1.8, 3.6)
3 or more	2.0% (0.8, 3.3)
Don't Know/Don't Remember	2.2% (1.5, 3.1)

In Table 10, 84% indicated they did not miss any days of school due to oral health problems or having a dental visit.

Days of Work Missed

Question: During the past 12 months, how many days of work did you or a family member miss for your child's oral health related problems, not including days missed for your child's routine oral health care (cleanings, checkup, etc.)?

Table 11. Days of Work Missed by Family Member among Florida's Third Grade Students, 2021-2022

Days of Work (N)	Percentage (95% C.I.)
0	82.5% (80.5, 84.6)
1	4.1% (3.0, 5.1)
2	1.7% (1.0, 2.4)
3 or more	2.1 % (0.8, 3.4)
Don't Know/Don't Remember	3.3% (2.3, 4.3)

Limitations

There are several limitations to the information presented from this survey. First, these screenings were conducted without the use of radiographs (x-rays), therefore, the findings may differ from those observed and diagnosed by clinicians outside of this project. Second, this survey was conducted only on public school students, of which not all participated, and may not be representative of all third grade students in Florida. In addition to those who could not participate due to no consent or a negative consent, some students were absent on the day screenings were conducted and could not be screened on another day. Last, the screeners are encouraged to be conservative, thus, the results represented here may be an underrepresentation of the true oral health status of Florida's third grade students.

Recommendations

The state of Florida strives to make continued progress to improve access to preventive dental care for students in Florida. Continued collaborative partnerships with school-based dental programs to share information on evidence-based prevention and early intervention practices, facilitates the promotion of oral disease prevention efforts including dental sealants.

Additional opportunities to improve the oral health status of Florida's third grade children include:

- Evaluate, address, and overcome barriers that exist in promoting dental sealant services for school age children.
- Increase the dental workforce providing school-based dental services, including cost effective dental sealants.
- Encourage teacher and parent involvement in developing an appropriate oral health literacy campaign for school age children.
- Increase the dissemination of proper oral care information and resources to children and parents.
- Continue oral health surveillance activities for school-age children and track progress in the reduction of oral health diseases.

References

1. National Institutes of Health. (2021). Oral Health in America: Advances and Challenges. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK578297/

2. Oral Conditions - Healthy People 2030 | odphp.health.gov Retrieved from https://odphp.health.gov/healthypeople/objectives-and-data/browse-objectives/oral-conditions

3. School-based caries prevention and the impact on acute and chronic student absenteeism Retrieved from https://jada.ada.org/article/S0002-8177(23)00317-3/fulltext

4. Association of State and Territorial Dental Directors (ASTDD). (2017). Basic Screening Surveys: An Approach to Monitoring Community Oral Health: Preschool and School Children. www.astdd.org

Appendices

Appendix A: Letter and Questionnaire Form for Parents

Mission:
To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.

Florida HEALTH

Vision: To be the **Healthiest State** in the Nation

Ron DeSantis
Governor

Joseph A. Ladapo, MD, PhD
State Surgeon General

September 2021

Dear Parent/Guardian:

Your child's school has been chosen to take part in the Florida Department of Health's *2021-2022 Our Smiles Count Project*. This project will help us plan future preventive dental health programs for elementary school age children. A healthy mouth is part of total health and wellness and makes a child more prepared to learn.

With your consent, a licensed dental hygienist will check your child's teeth to screen for tooth decay and other dental problems. This smile check is not intended to take the place of regular dental check-ups. Your child will receive a dental kit containing a toothbrush, toothbrush and floss, along with helpful information for taking good care of their teeth, a letter telling you about the health of your child's teeth and resources for follow up dental care if needed.

The licensed dental hygienist will follow procedures to prevent the spread of disease as set by the Centers for Disease Control and Prevention (CDC) for this type of oral health screening. Dental gloves will be worn, and the dental hygienists will use a new mirror for each child. Results of your child's smile check will be recorded with those of the other children being checked, but your child will not be personally identified in any reports.

Please complete and sign the enclosed consent form and questionnaire for your child to have a smile check, and then return the form to your child's teacher tomorrow. Even if your child has a dentist, your participation in this smile check will help other children who do not have access to regular dental care.

Thank you for working with us to learn how to improve the dental health of Florida's children. If you have any questions about the Our Smiles Count Project, please contact the Florida Dental Hygienists' Association at (860) 896-0603 or email centraloffice@fdha.org.

Sincerely,

Catherine L. Bridges DMD

Catherine Bridges, DMD
State Executive Dental Director
Public Health Dental Program
Florida Department of Health

Florida Department of Health
Public Health Dental Program
4052 Bald Cypress Way, Bin A-14 • Tallahassee, FL 32399-1721
PHONE: 850/245-4333 • FAX: 850/414-7552
www.flhealth.gov/dental

PHAB Accredited Health Department Public Health Accreditation Board

Our Smiles Count Consent Form and Questionnaire

Please complete this packet and return it to your child's teacher tomorrow. Thank you.

Child's Name: _____ Child's Age: _____

Child's Gender: ☐ Male ☐ Female ☐ Unspecified

☐ **Yes, I give permission** for my child's mouth to be screened.

☐ **No, I do not give permission** for my child's mouth to be screened.

_____ _____

Signature of Parent or Guardian **Date**

The purpose of this screening is to collect data. You will receive a screening results form for use by a "dentist at a prompt subsequent examination." Please note: "diagnosis of caries, soft tissue disease, oral cancer, temporomandibular joint disease (TMJ), and dentofacial malocclusions can only be completed by a dentist in the context of delivering a comprehensive dental examination," in accordance with Section 466.0235, Florida Statutes.

Please answer the following 12 questions to help us learn more about your child's dental care. Your answers will be reported in summary only; individual responses will not be shared. If you do not want to answer the questions, your child's mouth can still be checked.

1. Does your child have a history of any chronic conditions and/or developmental delays?
   Check all that apply.
   ☐ ADD/ADHD
   ☐ Asthma
   ☐ Cancer
   ☐ Diabetes
   ☐ Obesity
   ☐ Special Health Care Needs
   ☐ Other: _____
   ☐ No/None

2. How long has it been since your child last visited a dentist? Please include dentists such as orthodontists, oral surgeons, and all other dental specialists, as well as dental hygienists.
   Select one.
   ○ 6 months or less
   ○ More than 6 months, but less than 1 year ago
   ○ More than 1 year ago
   ○ Never have been to the dentist
   ○ Don't know/don't remember

3. What was the main reason that your child last visited a dentist?
   Select one.
   ○ Something was wrong, bothering, or hurting
   ○ Went for treatment of a condition that dentist discovered at earlier check-up or examination
   ○ Was called in by the dentist for checkup, examination, or cleaning
   ○ Went in for check-up, examination, or cleaning
   ○ Not applicable, my child has not visited a dentist
   ○ Don't know/don't remember

4. During the past 6 months, did your child have a toothache more than once when biting or chewing?**Select one.**
   - O No
   - O Yes
   - O Don't know/don't remember

5. During the past 12 months, what was the main reason your child could **not** get dental care when he or she needed it?
   Check all that apply.
   - ☐ Dentist did not take Medicaid/insurance
   - ☐ Difficulty in getting appointment
   - ☐ Could not afford it
   - ☐ No insurance
   - ☐ Not a serious enough problem
   - ☐ No way to get there (transportation)
   - ☐ Didn't know where to go
   - ☐ Speak a different language than dentist
   - ☐ Other_____
   - ☐ Not applicable, my child has always been able to receive dental care when he or she needed it
   - ☐ Don't know/don't remember

6. During the past 30 days, how often did your child drink regular soda or pop that contains sugar?
   Select one.
   - O 1 to 2 times per day
   - O 3 to 5 times per day
   - O 6 or more times per day
   - O None
   - O Don't know/don't remember

7. During the past 30 days, how often did your child drink sugar-sweetened drinks such as fruit drinks (including 100% fruit juice, Kool-Aid, and lemonade), sweet tea, coffee, sweetened milk and milk alternatives, and sports or energy drinks (such as Gatorade and Red Bull)?
   Select one.
   - O 1 to 2 times per day
   - O 3 to 5 times per day
   - O 6 or more times per day
   - O None
   - O Don't know/don't remember

8. During the past 12 months, did your child visit the emergency department (or emergency room) because of any oral or dental related issues? **Select one.**
   - O No
   - O Yes
   - O Don't know/don't remember

9. During the past 12 months, how many days of school did ***your child*** miss for oral health related problems? Do not include days missed for routine oral health care (cleanings, checkups, etc.).
   Select one.
   - O 0 Days
   - O 1 Day
   - O 2 Days
   - O 3 Days
   - O 4 Days
   - O 5 or More Days
   - O Don't know/don't remember

10. During the past 12 months, how many days of work did ***you or a family member*** miss for your child's oral health related problems? Do not include days missed for your child's routine oral health care (cleanings, checkups, etc.).
    Select one.
    O 0 Days
    O 1 Day
    O 2 Days
    O 3 Days
    O 4 Days
    O 5 or More Days
    O Not Applicable (does not work)
    O Don't know/don't remember

11. What insurance do you have that pays for some or all of your child's **dental care** (not medical or surgical)? Include dental insurance obtained through employment or purchased directly, as well as government programs like Medicaid.
    Check all that apply.
    ☐ Private Insurance
    ☐ Medicaid
    ☐ Other
    ☐ None
    ☐ Don't know/don't remember

12. Which of the following best describes your child?
    Check all that apply.
    ☐ American Indian/Alaska Native
    ☐ Asian
    ☐ Black/African American
    ☐ Hispanic/Latino
    ☐ Native Hawaiian/Pacific Islander
    ☐ White
    ☐ Other_____

THANK YOU FOR PARTICIPATING IN THE SMILE CHECK!

Appendix B: Third Grade Oral Health Screening Results Form

Our Smiles Count Project
Screening Form

Screen Date: __ __/__ __/__ __ __ __	School Code:	Screener's Initials:	Child's Age:	Child's FLOSS Record Number:
Untreated Decay: ☐0=No untreated decay ☐1=Yes untreated decay	Treated Decay: ☐0=No treated decay ☐1=Yes treated decay		Potentially arrested decay: ☐0=No potentially arrested decay ☐1=Yes potentially arrested decay	
Treatment Urgency: ☐0=No obvious problem ☐1=Early dental care ☐2= Urgent dental care	Sealants present on permanent first/second molar: ☐0= No sealants present ☐1=Yes sealants present		Sealants present on primary first/second molar: ☐0= No sealants present ☐1=Yes sealants present	
Comments (if needed, not required):				

Appendix C: Screening Results Letter Sent to Parents

Mission:
To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.

Florida HEALTH

Ron DeSantis
Governor

Scott A. Rivkees, MD
State Surgeon General

Vision: To be the **Healthiest State** in the Nation

2021-2022 Our Smiles Count Project Results

FLORIDA DEPARTMENT OF HEALTH

Dear: _____

As part of the *2021-2022 Our Smiles Count Project,* your child's teeth and mouth were screened today. No x-rays were taken, and the screening does not replace an in-office dental examination by your child's dentist. The results of the screening indicate that:

_____ Your child appears to have no obvious dental problems but should continue to have routine examinations by their dentist.

_____ Your child has a tooth, or teeth, which should be evaluated by their dentist to determine if treatment is needed.

_____ Your child has a tooth, or teeth, which appear to need immediate care and you should contact their dentist as soon as possible for a complete evaluation.

If your child does not have a dentist or you need help with arranging dental care for your child, please visit http://www.floridahealth.gov/dental/resources to locate a dentist in your area.

Florida Department of Health
Public Health Dental Program
4052 Bald Cypress Way, Bin A-14 • Tallahassee, FL 32399-1721
PHONE: 850/245-4333 • FAX: 850/414-7552
www.flhealth.gov/dental
https://youtu.be/mbwTus8VSPQ

PHAB Accredited Health Department
Public Health Accreditation Board