

BRIGHT SMILES FOR BRIGHT FUTURES REPORT



FINDINGS FROM LOUISIANA'S ORAL
HEALTH BASIC SCREENING SURVEY

2017-2018





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ACKNOWLEDGEMENTS



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The Louisiana Basic Screening Survey (BSS) was conducted during the 2016-17 and 2017-18 school years. Dental hygienists screened 1,264 3rd grade students from a statewide sample of 49 schools located throughout Louisiana.

Key Findings:

- Among Louisiana 3rd graders, 28.7% have dental sealants on one or more of their permanent molars, which meets the Healthy People 2020 goal of 28.1%.
 - Dental sealants were the least common in the central region (13.8%) compared to the northern region (29.8%), river region (30.2%), and southern region (31.4%).
- Louisiana is very close to meeting the Healthy People 2020 goal of 25.9% of 3rd graders with untreated decay (Louisiana: 26.2%).
 - Untreated decay was most prevalent among black students (29.4%) and in the southern region of Louisiana (32.4%).
- Louisiana has not met the Healthy People 2020 goal for 49.0% of 3rd graders with caries experience (Louisiana: 56.4%).
 - Caries experience was the most prevalent among black 3rd graders (64.2%) and in the central region (64.9%).
- In Louisiana, 20.8% of 3rd graders need early care (caries without accompanying signs or symptoms or individuals with other oral health problems requiring care before their next routine dental visit) and 2.3% needed urgent care (signs or symptoms that include pain, infection, or swelling).
- Based on the parent questionnaire, 43.3% of 3rd graders have not been to the dentist in the past 6 months.
- According to parents or guardians, 10.5% of 3rd graders do not have dental insurance.



Oral health is integral to an individual's overall health, and dental caries are one of the most common chronic conditions in the United States. Oral health affects the overall health of a child affecting self-esteem, academic success, and other chronic diseases making quality preventive care crucial in keeping children healthy and pain free. If oral health is neglected during early years and adolescence, problems continue into adulthood. Research has shown when children suffer from dental pain they have poor concentration during school hours resulting in difficulty attending to tasks. This can lead to high levels of anxiety and irritability [1].

Well-Ahead Louisiana is a chronic disease prevention and health promotion initiative of the Louisiana Department of Health. This initiative moves Louisiana's health forward in six priority areas – Healthy Start, Healthy Weight, Healthy Hearts, Healthy Smiles, Healthy Air, and Healthy Communities. Well-Ahead uses several evidence-based interventions to promote Healthy Smiles. One of these strategies include increasing access to dental sealants through school-based dental sealant programs statewide.

To accomplish this, Well-Ahead conducts a Child Basic Screening Survey (BSS) every three to five years to collect the prevalence of caries experience, untreated tooth decay, and dental sealants among 3rd grade students. This project, recognized as the **Louisiana Bright Smiles for Bright Futures, Basic Screening Survey**, is funded through the Centers for Disease Control and Prevention's (CDC) Division of Oral Health. The Association of State and Territorial Dental Directors (ASTDD) also provided guided recommendations and technical assistance.

The Basic Screening Survey

The BSS is a standardized non-invasive open mouth survey used by states to assess oral health status among 3rd graders. The American Association of State and Territorial Dental Directors (ASTDD) developed the survey and states select their target populations based upon each state's specific needs and priorities. Louisiana selected the children's 3rd grade survey as opposed to other child-level surveys to demonstrate the need for effective interventions that prevent and eliminate tooth decay within the state's school-aged population.

The rationale for conducting the BSS in Louisiana:

- Louisiana is a predominantly rural state with 84% of the state designated as a Dental Health Professional Shortage Area (HPSA).
- According to the 2017 America's Health Rankings 28.3% of children in Louisiana are in poverty and the state is ranked 42 out of the 50 continental states for dentists per 100,000 population [2]. Children of low-income families experience greater barriers to dental services such as lower rates of dental insurance, issues with provider office location, and limited number of practices accepting Medicaid insurance [3].
- Medicaid-eligible children in Louisiana are 3 to 5 times more likely to have untreated dental decay than non-eligible children. Over 820,000 Louisiana children receive coverage under the state Medicaid program and have access to a dental benefit plan, but preventive care utilization rates remain low within this population. In State Fiscal Year 2017, Managed Care of North America (MCNA) covered 901,379 Medicaid enrollees under the age of 21. Of those, 49% (422,601 members) saw a dentist for at least one service [4].

- Many states have school-based health centers (SBHC), an ideal setting to address children's oral health needs; however, most of SBHC's in Louisiana are no longer providing dental services due to the lack of resources and workforce capacity.

Louisiana previously conducted three rounds of the BSS in **1998, 2002, and 2007-2009** (see table 1). In 1998, the BSS screened 1,390 children located within 14 state parishes. The report showed that 38.1% had untreated cavities, 22.1% had dental sealants, and 34.7% were referred for treatment. In 2002, the BSS screened 871 children located in seven parishes. Among those screened, 37.3% had untreated cavities, 63.5% had caries experience, 18% had dental sealants, and 38.5% were referred for treatment. In 2007-09, a representative sample of 3rd grade children in Louisiana was utilized for the first time. The survey reached 2,642 students from 75 schools. Of those students, 41.9% of children screened had untreated cavities, 65.7% had dental caries experience, and 42.7% had to be referred to dentists for treatment. In addition, 33.2% of students screened in 2007-09 indicated the presence of dental sealants, which was on par with the national average at the time [5].

<i>Breakdown of Previous BSS Survey findings</i>			
<i>Survey year</i>	1998	2002	2007-2009
<i>Sample</i>			
<i>Total children screened</i>	1,390	871	2,642
<i>Number of parishes sampled from</i>	14	7	33
<i>Findings</i>			
<i>Untreated cavities (%)</i>	38.1	37.3	41.9
<i>Dental Sealants (%)</i>	22.1	18	33.2
<i>Referred for treatment (%)</i>	34.7	38.5	42.7

Table 1: Breakdown of 1998, 2002, 2007-2009 BSS surveys

Going forward, Well-Ahead will continue to utilize the Basic Screening Survey to identify the oral health needs among 3rd graders and ensure that Louisiana's children receive optimal preventive oral health services. Well-Ahead will work with Head Start programs, which already conduct internal oral health assessments. Well-Ahead goal is to decrease barriers to accessing dental care and ultimately reducing disparities for Louisiana children.



Selection of Schools

Louisiana elementary schools were randomly selected through stratified systematic probability proportional to size (PPS) sampling from ordered lists of public and private schools in five strata, including four designated regions of the state and non-traditional schools. The four designated traditional school state regions were the Central Region, the Northern Region, the River Region, and the Southern Region. The fifth stratum was made up of all state non-traditional schools. The sampling frame used school enrollment files obtained from Louisiana Department of Education for the 2014-15 school year. School selection in each stratum was proportional to school 3rd grade enrollment figures so that strata would be proportionately represented in the final sample. The stratum selection included: 7 schools in the Central Region, 15 schools in the Northern Region, 24 schools in the River Region, 33 schools in the Southern Region, and 6 schools from the stratum of non-traditional schools, for a total of 85 school selections. Home-schooled children were excluded from the survey.

Implicit stratification was implemented through sorting of stratum schools by key stratifying variables. Schools were then systematically sampled through the list with the sampling interval calculated by the total 3rd grade enrollment in the stratum divided by the number of schools to be selected, with a random start in the first sampling interval. Slightly different implicit stratification was employed by stratum as described below. In cases of school refusal or school closure, replacement schools were selected with a random probability proportional to size school selected from the same sampling interval as the refusing school. A variable included in the school files estimating the percentage of students considered “economically disadvantaged” served as a proxy for socioeconomic status. Of the original 85 selected schools, 46 schools refused to participate. Replacements were selected for refusing original selections and refusing replacement selections. The final sample includes 49 schools.

Central Region

The Central Region included Avoyelles, Beauregard, Catahoula, Concordia, Grant, La Salle, Natchitoches, Rapides, Sabine, Vernon, and Winn parishes of central Louisiana and has the lowest traditional school total 3rd grade enrollment of the Louisiana regions. The sampling list of schools was sorted first by private and public schools. Private schools were sorted alphabetically by parish to ensure geographic distribution of selections. Then all public schools in the region were sorted by the percent economically disadvantaged variable. Systematic sampling then provided for implicit stratification of public and private schools and for SES within public schools. The final sample includes 7 schools in the Central Region.

Northern Region

The Northern Region included Bienville, Bossier, Caddo, Caldwell, Claiborne, De Soto, East Carroll, Franklin, Jackson, Lincoln, Madison, Morehouse, Ouachita, Red River, Richland, Tensas, Union, Webster, and West Carroll parishes of northern Louisiana. The sampling list of schools was sorted first by private and public schools. Private schools were sorted alphabetically by parish to ensure geographic distribution of selections. Then for public schools, a sorting of parishes separated the larger parishes of Bossier, Caddo, and Ouachita, where more than one school selection could occur. Then within the three large parishes, and among the remaining smaller parishes, schools were sorted by percent economically disadvantaged. Systematic sampling then provided for implicit stratification of public and private schools, and among public schools for SES within each of the larger parishes, and among all of the remaining smaller parishes. The final sample includes 15 schools in the Northern Region.

River Region

The River Region included Ascension, East Baton Rouge, Jefferson, Orleans, Plaquemines, Pointe Coupee, St. Bernard, St. Charles, St. James, St. John the Baptist West Baton Rouge, and West Feliciana parishes in southern Louisiana along the Mississippi River. The sampling list of schools was sorted first by private and public schools. Private schools were sorted alphabetically by parish to ensure geographic distribution of selections. Then for public schools, a sorting of parishes separated the larger parishes of Ascension, East Baton Rouge, Jefferson, and Orleans, where more than one school selection could occur. Then within the four large parishes, and among the remaining smaller parishes, schools were sorted by percent economically disadvantaged. Systematic sampling then provided for implicit stratification of public and private schools, and among public schools for SES within each of the larger parishes, and among all of the remaining smaller parishes. The final sample includes 24 schools in the River Region.

Southern Region

The Southern Region included Allen, Acadia, Assumption, Calcasieu, Cameron, East Feliciana, Evangeline, Iberia, Iberville, Jefferson Davis, Lafayette, Lafourche, Livingston, St. Helena, St. Landry, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, Vermillion and Washington parishes in southern Louisiana. The sampling list of schools was sorted first by private and public schools. Private schools were sorted alphabetically by parish to ensure geographic distribution of selections. Then for public schools, a sorting of parishes separated the larger parishes of Calcasieu, Iberia, Lafayette, Lafourche, Livingston, St. Landry, St. Tammany, Tangipahoa, and Terrebonne, where more than one school selection could occur. Then within the seven large parishes, and among the remaining smaller parishes, schools were sorted by percent economically disadvantaged. Systematic sampling then provided for implicit stratification of public and private schools, and among public schools for SES within each of the larger parishes, and among all of the remaining smaller parishes. The final sample includes 33 schools in the Southern Region.

Training of Screeners

Prior to the beginning of each school year, Well-Ahead provided contracted BSS dental hygienists with a two hour training, during which each hygienist learned the standard screening protocol, how to determine oral health status of students, appropriate oral health education to be provided to students, and instructions for completing the standard screening form.

Well-Ahead and the trained BSS dental hygienists worked together to conduct the screenings in selected schools in order to collect the necessary oral health data of the 3rd grade students screened. Well-Ahead staff initiated contact with each of the 85 selected schools in the sample via phone and email communications to explain the program and obtain a participation agreement (Appendix I). In addition, each local education agency (LEA) with a school selected in the sample received a BSS introduction letter signed jointly by the Louisiana Department of Education and the Louisiana Department of Health. This letter was addressed to the LEA superintendent and requested LEA-level support for this project (Appendix II).

Recruitment of Participants

Each of the 49 consenting elementary schools was asked to return a completed school participation form to Well-Ahead. Once this was received, planning for the screening day began. Two weeks prior to each school screening date Well-Ahead provided screening consent forms and informational flyers for parents that described the reason for the screening, the screening process and a parent questionnaire (Appendix III). The parent questionnaire asks the parents to report their child's oral health status, the time since last dental visit, problems accessing dental care, and whether their child has dental insurance.

The program utilized portable screening equipment and available space at the school to conduct the screenings. In addition to a visual oral health screening, the BSS dental hygienists provided individual education on good oral hygiene. The BSS dental hygienists were tasked with completing an oral health screening form for each student screened (Appendix IV). The screening form evaluated each child on four

oral health indicators: (1) caries experience, (2) presence of decay, (3) treatment urgency, and (4) sealants present. After each screening, the hygienist completed a post-screening form to inform student's parent on their findings (Appendix V). This form also included information for locating for both Medicaid-enrolled and private insurance dentists.

Each participating child received an oral health take home bag which included a toothbrush, toothpaste, stickers, a parent "Brush Up on Oral Health" tips form (Appendix VI), oral health educational coloring sheet (Appendix VII) and the personalized post-screening parent take home form. After each school screening, the BSS dental hygienist securely mailed the parent consent and completed screening forms to Well-Ahead staff for evaluation. A thank you follow-up letter, the school's corresponding regional screening fact sheet (Appendix VIII), and an Oral Health Champion Certificate (Appendix IX) were provided to each participating school at the conclusion of data collection (Spring 2018). Schools also will receive the BSS Final Report to view the overall screening survey findings.

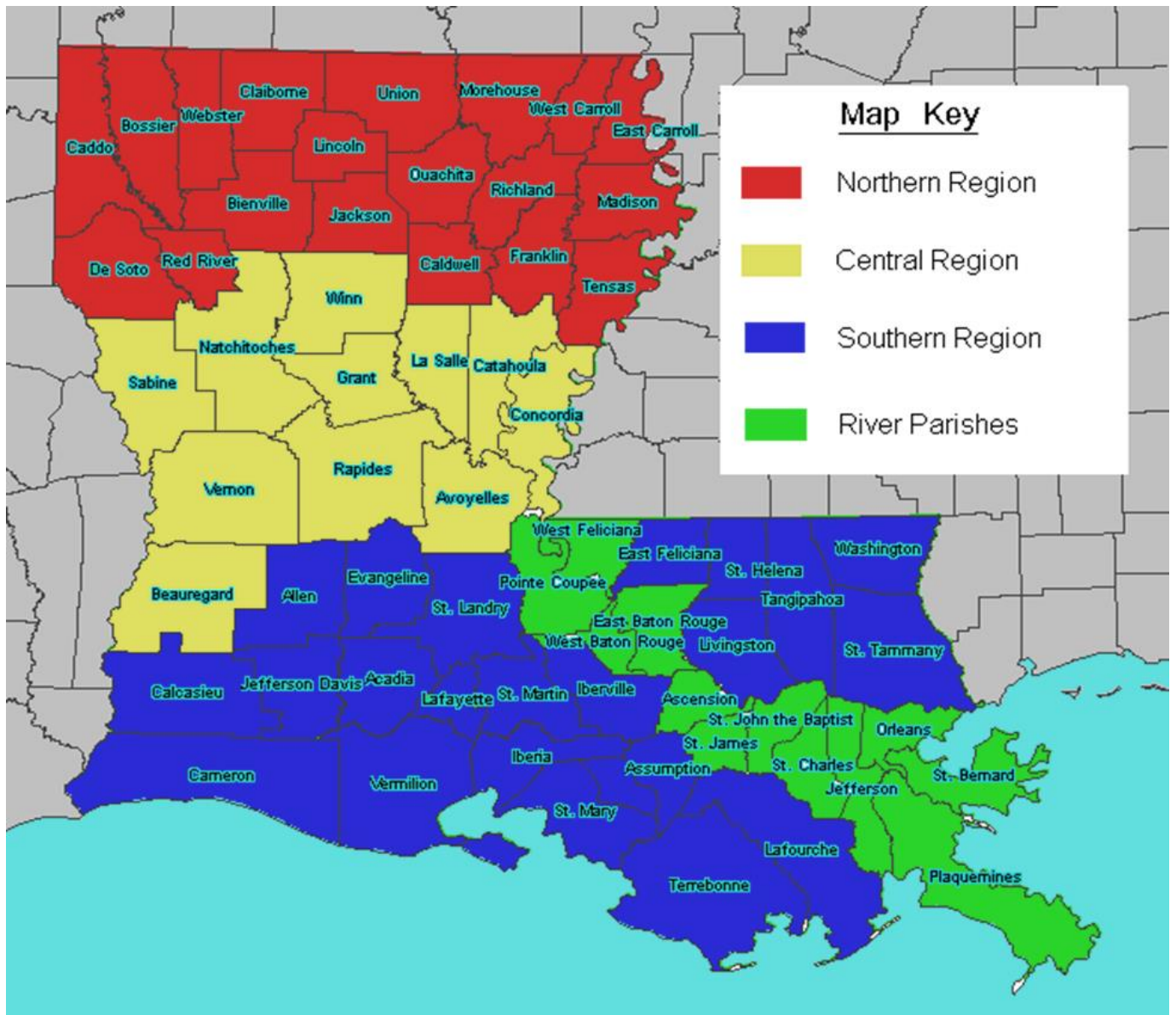
Data Management and Analysis

Data collection was done via hard copy forms and data entry was completed using Microsoft Access 2016.

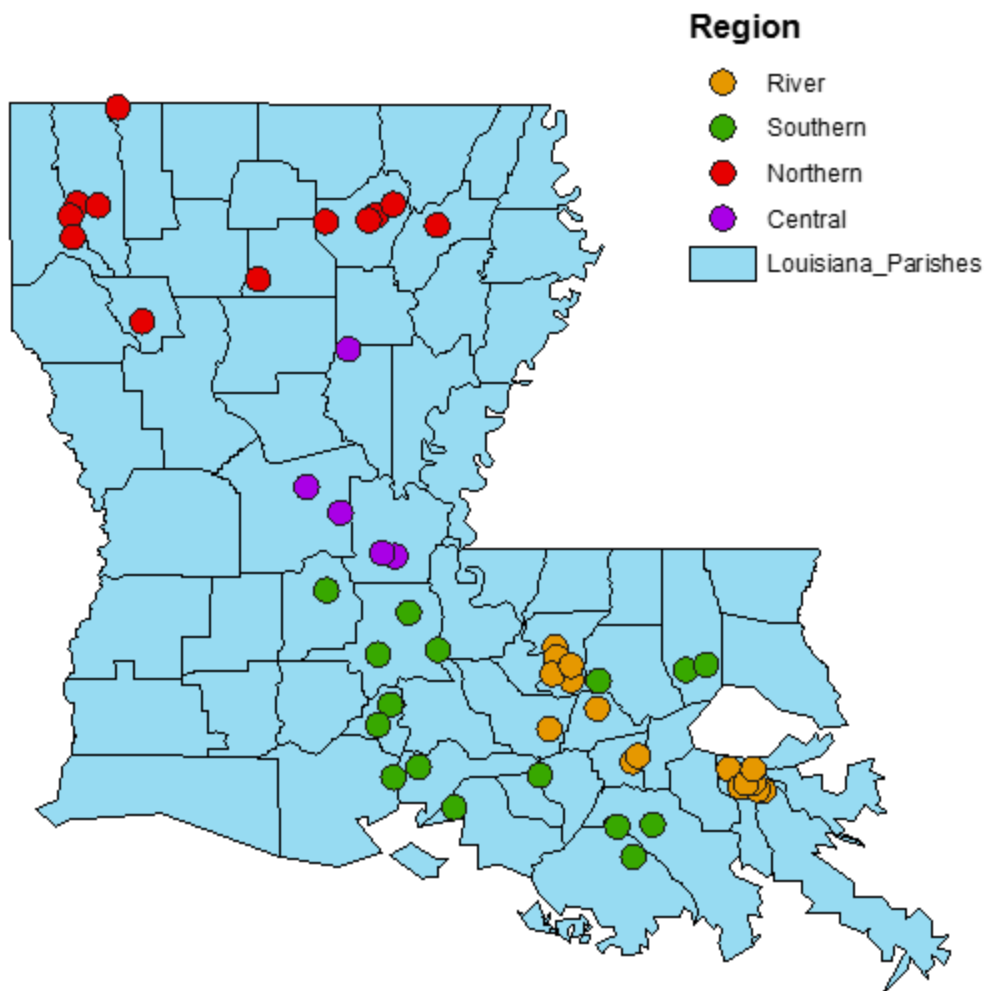
Analysis sample weights were calculated for each child in the survey based on the sampling design employed. Weight calculations were based on the stratification of schools by region. Within each region, implicit stratification was based on geography, private/public school status, and socio-economic status (using percentage of economically disadvantaged children). As described in the previous section on "Selection of Schools", sampling intervals were created based on these stratification factors, enrollment in the region, and number of schools to be selected in each region. Screened children were assigned weights based on their probability of selection from children within their sampling interval. Weights therefore reflect the number of Louisiana 3rd grade children that each screened child represented.

These analysis weights, sample design stratification and clustering specifications were used with SAS 9.4 statistical software to generate valid population-based estimates of results.

Map of Basic Screening Survey Regions



Map of Schools Screened





During the 2016-2017 and 2017-2018 school years, Well-Ahead Louisiana Oral Health Promotion completed the 3rd grade Basic Screening Survey in 49 randomly selected elementary schools to create a representative statewide sample. Within the 49 schools, 1,246 students were screened.

Demographics

<i>Demographic Breakdown of Students Who Participated in the 2016-2018 Basic Screening Survey</i>		
	Unweighted Frequency	Weight %
<i>Total</i>	1264	100
<i>Sex</i>		
<i>Male</i>	577	46.6%
<i>Female</i>	684	53.4%
<i>No Response</i>	3	--
<i>Race/Ethnicity</i>		
<i>White</i>	485	38.5%
<i>Black/African American</i>	606	48.7%
<i>Hispanic/Latino</i>	70	5.6%
<i>Asian</i>	27	1.7%
<i>American Indian/Alaska Native</i>	6	0.5%
<i>Native Hawaiian/Pacific Islander</i>	--	--
<i>Multi-racial</i>	33	2.2%
<i>Unknown</i>	14	1.0%
<i>Did not wish to provide</i>	16	1.8%
<i>No Response</i>	7	--
<i>Region</i>		
<i>Northern Region</i>	304	23.7%
<i>Central Region</i>	161	13.1%
<i>River Region</i>	332	27.4%
<i>Bayou Region</i>	322	23.2%
<i>Southern Region</i>	145	12.6%

Table 2: Demographic breakdown of the 2016-2018 BSS survey

Healthy People 2020 Objectives

Healthy People (HP) provides 10-year national objectives for improving the health of Americans. On December 2, 2010, HP launched the 10 year agenda which will end in 2020. The oral health HP objectives include 3 objectives related to oral health in children 6 to 9 years old. These objectives include: caries experience, dental sealants, and untreated decay.

Caries experience is noted by the presence of any treated or untreated decay in primary (baby) teeth and/or permanent (adult) teeth. Figure 1 (below) shows screening results of 3rd graders which indicated that Louisiana has not met the HP 2020 objectives of 49% or less children aged 6 to 9 with caries experience (Louisiana: 56.4%).

Dental sealants are thin, plastic coating painted on the chewing surfaces of the molar teeth in order to prevent dental decay in the pits and grooves found there by “sealing out” plaque and food. Screening results of 3rd graders indicated that Louisiana met the HP 2020 goal of 28.1% or more children aged 6 to 9 with dental sealants present (Louisiana: 28.7%).

Untreated decay (cavities) is one of the most common chronic conditions of childhood and an indicator of barriers to accessing dental care. Screening results of 3rd graders indicated that Louisiana has not met the HP 2020 goal of 25.9% or less children aged 6 to 9 with untreated decay (Louisiana 26.2%), shown in Figure 1 below.

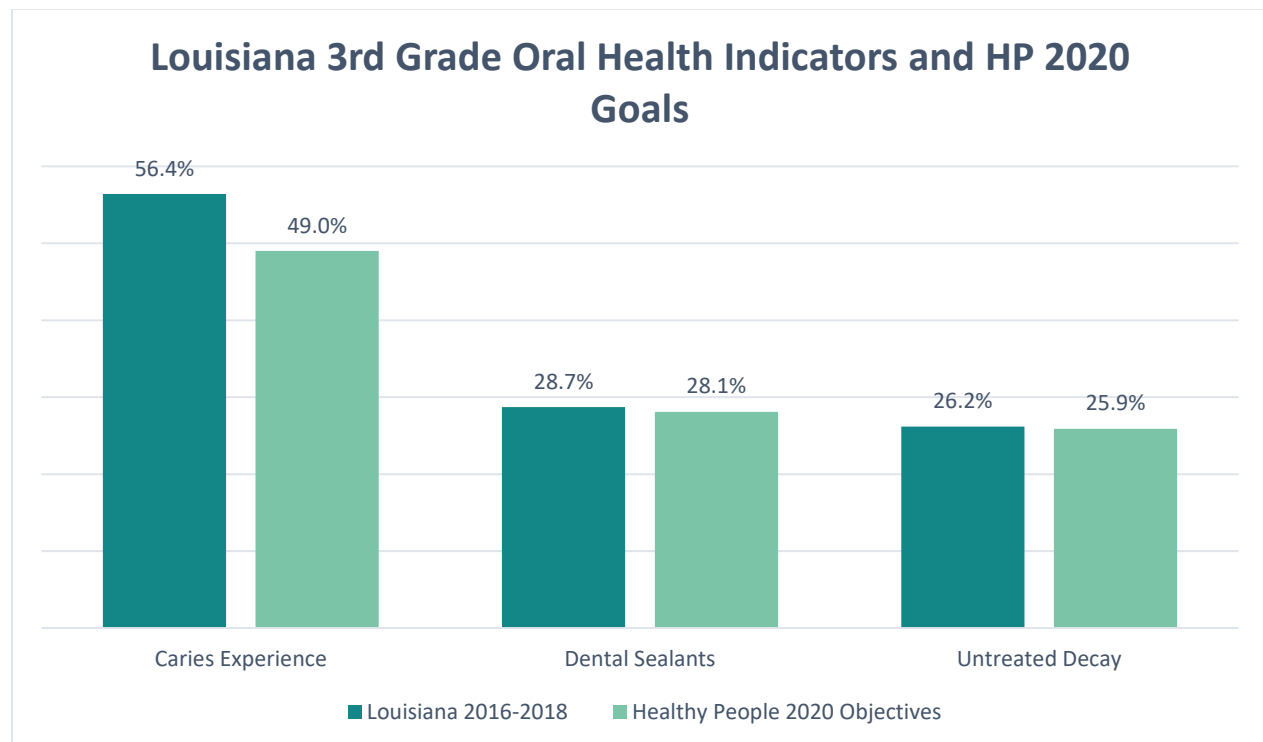


Figure 1: Louisiana Oral Health Indicators and HP 2020 Goals

Caries Experience

The Louisiana BSS found that caries experience in 2016-18 (56.4% [95%CI: 51.8-61.1%]) improved from the 2007-2009 survey period (65.7% [95%CI: 62.3-69.0]). Although caries experience among 3rd graders in Louisiana has improved, it is not yet consistent with the HP 2020 goal (49.0%). It is also above the national average (51.7% [95%CI: 44.7-58.6]), which can be seen in Figure 2 below.

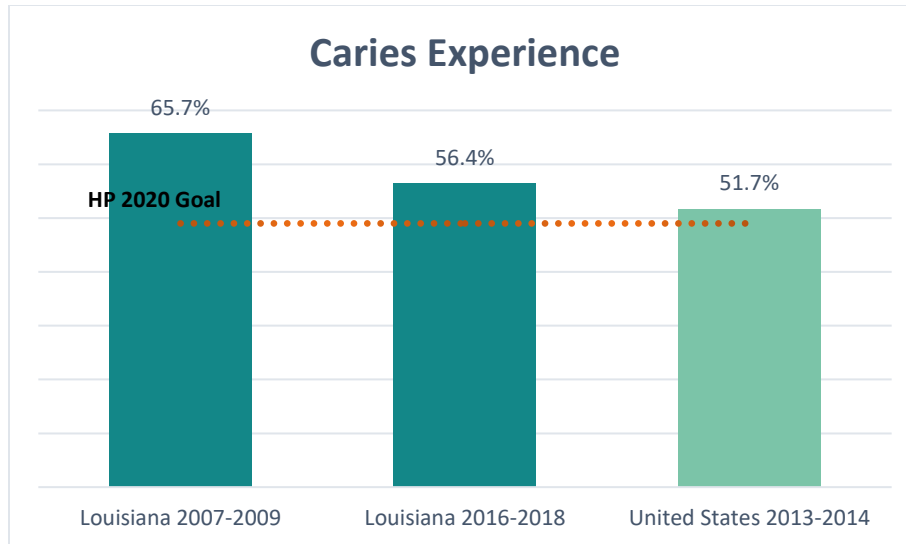


Figure 2: Caries Experience in Louisiana and the United States

Compared to white 3rd graders in Louisiana (45.4% [95%CI: 39.0-51.7]), the prevalence of caries experience was found to be higher in black 3rd graders (64.2% [95%CI: 59.8-68.6]), shown in Figure 3 (below). Due to small sample size, Hispanic/Latino, Asian, American Indian/Alaska Native, and Multi-racial were all classified as other race.

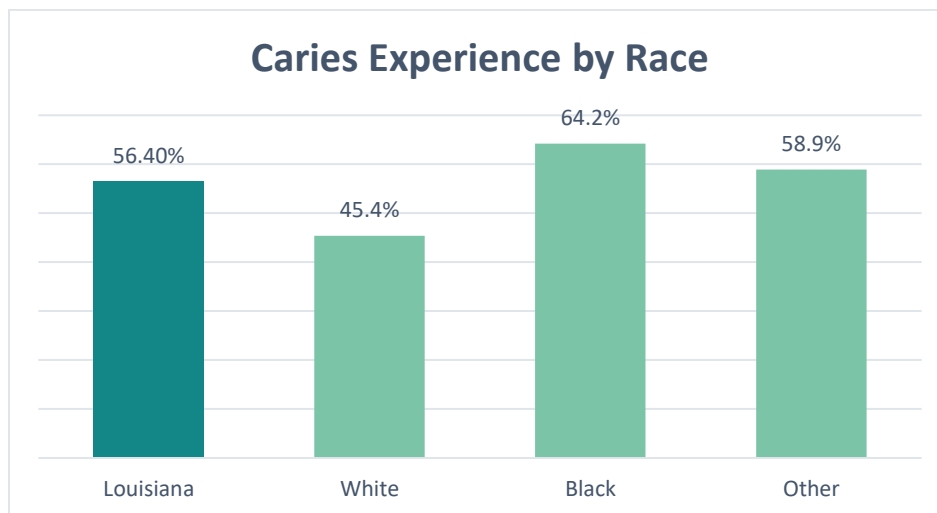


Figure 3: Caries Experience by Race

Figure 4 (below) indicated the prevalence of dental caries experience varied a bit when broken down geographically. The region with the highest prevalence of caries experience is the Central Region (64.9% [95%CI: 49.3-80.6]) compared to the Southern Region which had the lowest prevalence (53.2% [95%CI: 45.2-61.1]). This indicates that there may be some remaining challenges in access to dental care in some of the more rural parts of Louisiana.

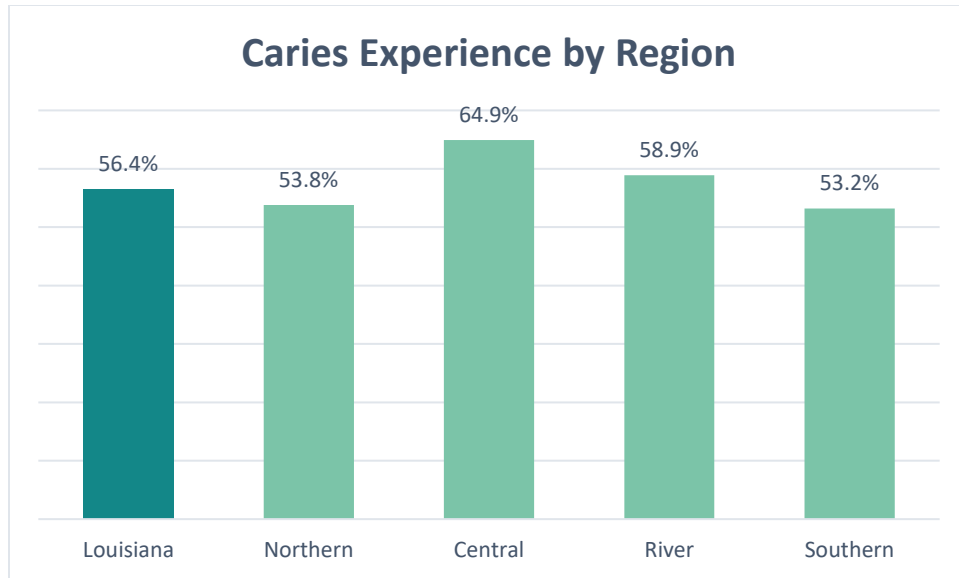


Figure 4: Caries Experience by Region

Dental Sealants

The Louisiana BSS assessed the presence of at least one sealant on a permanent molar. Figure 5 (below) shows the presence of dental sealants in 3rd graders in 2016-18 (28.7% [95%CI: 25.7-31.7]) declined since 2007-09 (33.2% [95%CI: 28.8-37.6]). Although the presence of dental sealants has declined, Louisiana meets the HP 2020 goal of 28.1%, but is far off from the national average (40.7% [95%CI: 34.4-47.3]).

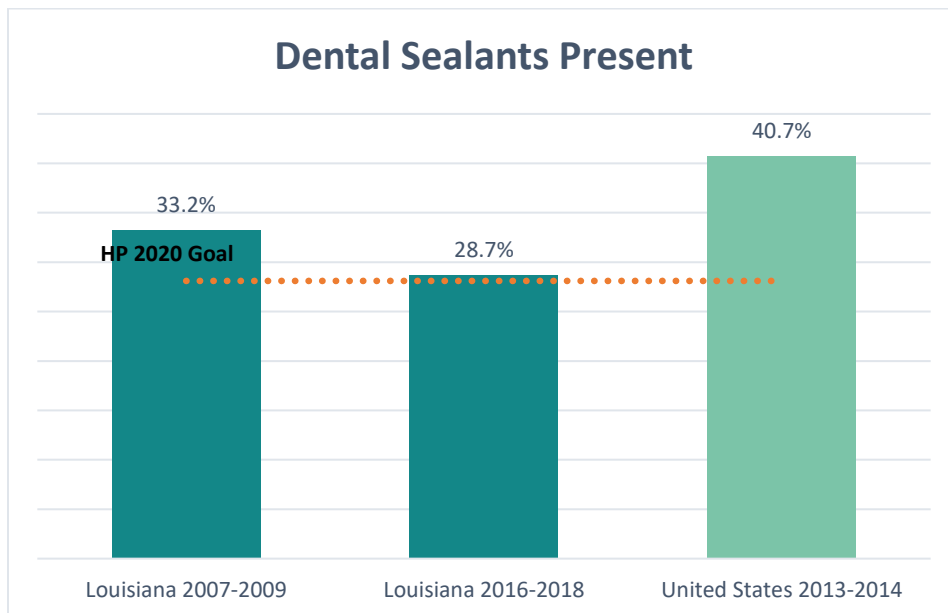


Figure 5: Dental Sealants in Louisiana and United States

The prevalence of dental sealants was similar by race and gender but varied by geographical area, displayed in Figure 6 (below). The lowest prevalence of dental sealants among 3rd graders in Louisiana

was in the Central Region (13.8% [95%CI: 4.5-23.1]), while the highest was in the Southern Region (31.4% [95%CI: 26.2-36.5]).

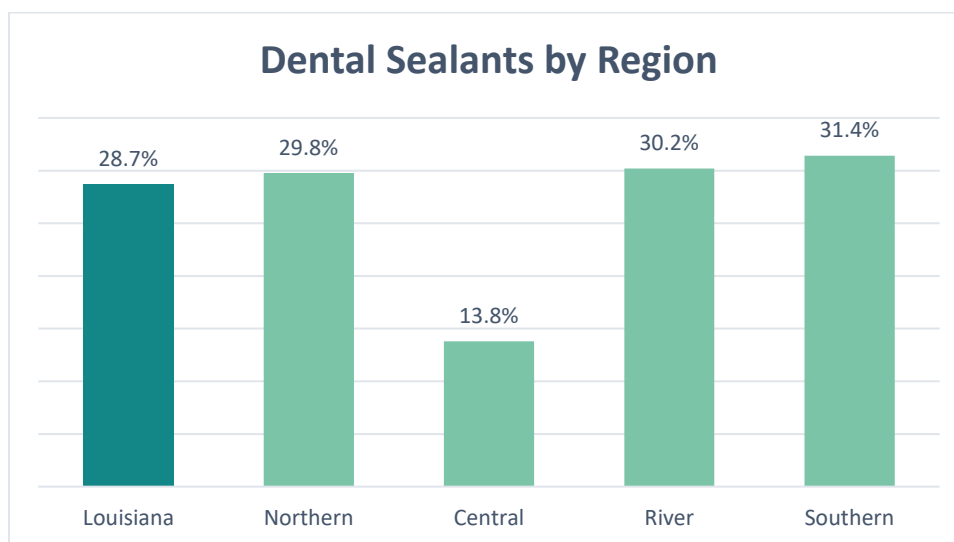


Figure 6: Dental Sealants by Region

Untreated Decay

The Louisiana BSS assessed the presence of an obvious breakdown of the enamel surface of the tooth. Figure 7 (below) indicates the presence of untreated decay in 3rd graders in 2016-2018 (26.2% [95%CI: 22.0-30.3]) has significantly declined since 2007-09 (41.9% [95%CI: 37.9-45.9]). The decline in prevalence of untreated cavities put Louisiana very close to the HP 2020 goal of 25.9% but is worse than the national average of 16.2% (95%CI: 12.8-20.4).

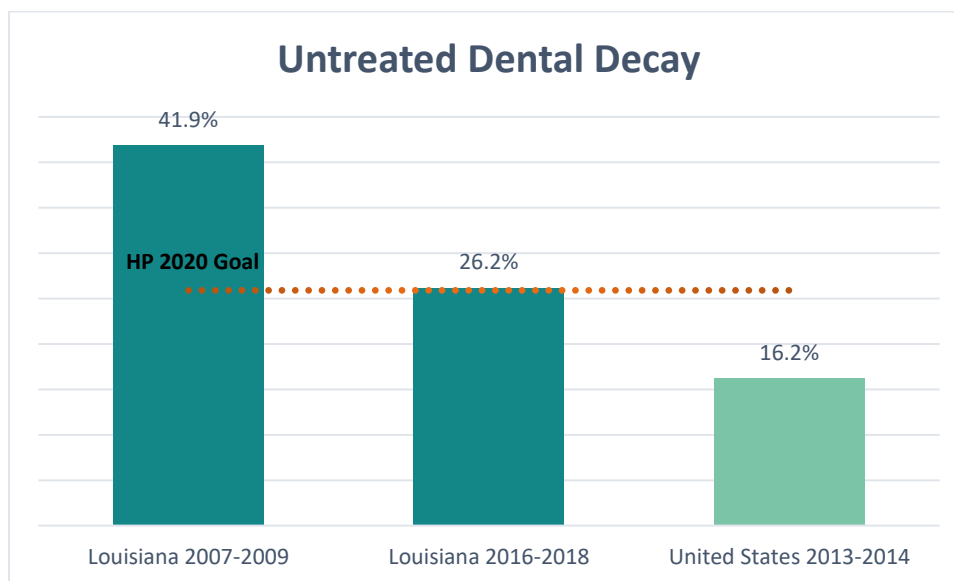


Figure 7: Untreated Dental Decay in Louisiana and United States

The prevalence of untreated decay was similar by gender but varied by race. Figure 8 (below) shows prevalence of dental decay was highest among black 3rd graders (29.4% [95%CI: 16.2-28.1]), followed by white 3rd graders (22.1% [95%CI: 16.2-28.1]), and other races (14.3 [95%CI: 16.5-33.7]).

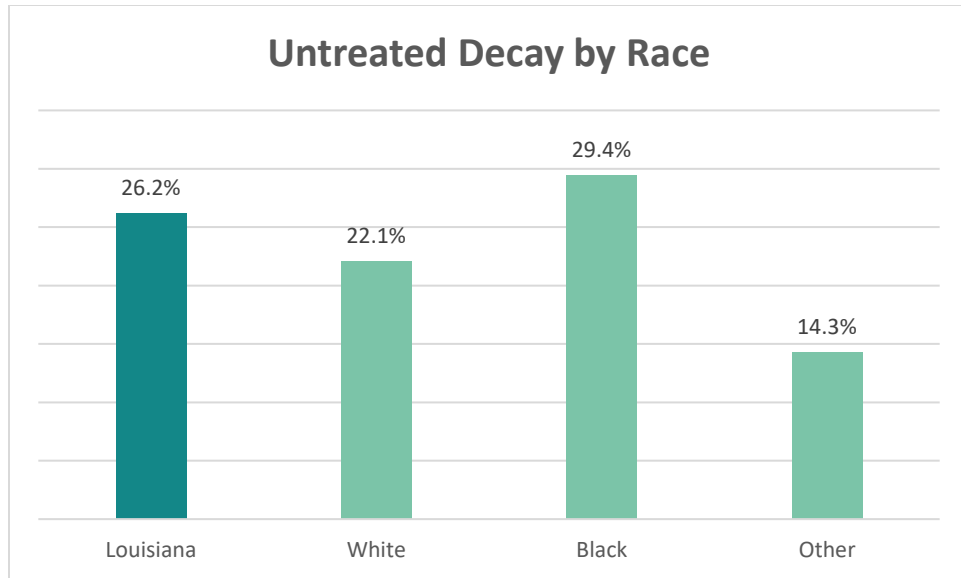


Figure 8: Untreated Dental Decay by Race/Ethnicity

The prevalence of untreated decay varied by geographical region. The prevalence of untreated decay was the highest in the Southern Region (32.4% [95%CI: 23.4-41.4]), followed by the Central Region (32.3% [95%CI: 26.1-38.6]). The prevalence of untreated decay was the lowest in the River Region (19.8% [95%CI: 13.3-26.4]), seen in Figure 9.

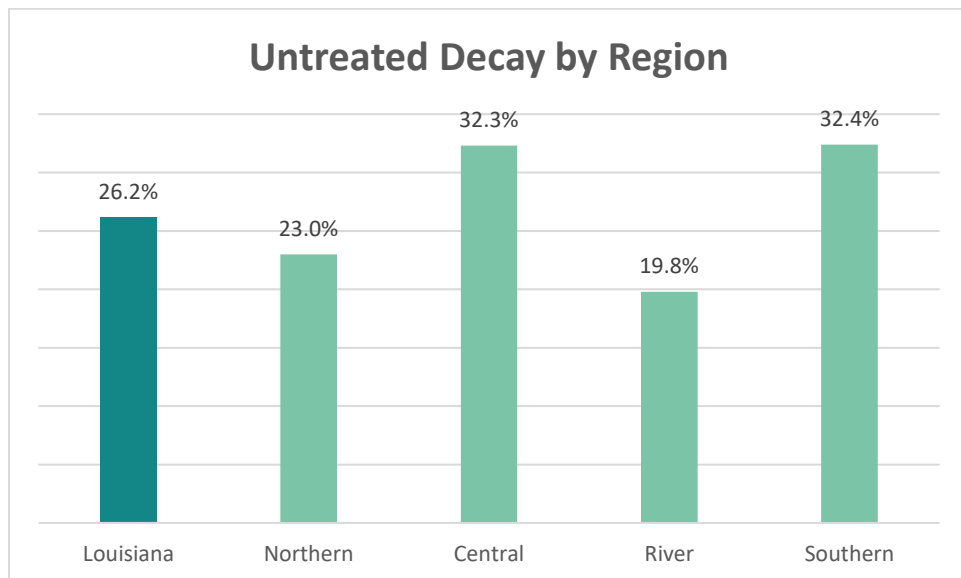


Figure 9: Untreated Dental Decay by Region

Referred for Treatment

Treatment urgency was classified into three categories including: no problem, early care (the child has visible decay or problems, and needs to see a dentist in the next two weeks), and urgent care (the child has very serious decay or problems and needs to see a dentist within 24 hours). Figure 10 (below) indicates that in 2007-09, 42.7% (95%CI: 38.9-46.5) of Louisiana 3rd graders needed treatment compared to 23.1% (95%CI: 18.5-27.8) of Louisiana 3rd graders in 2016-18.

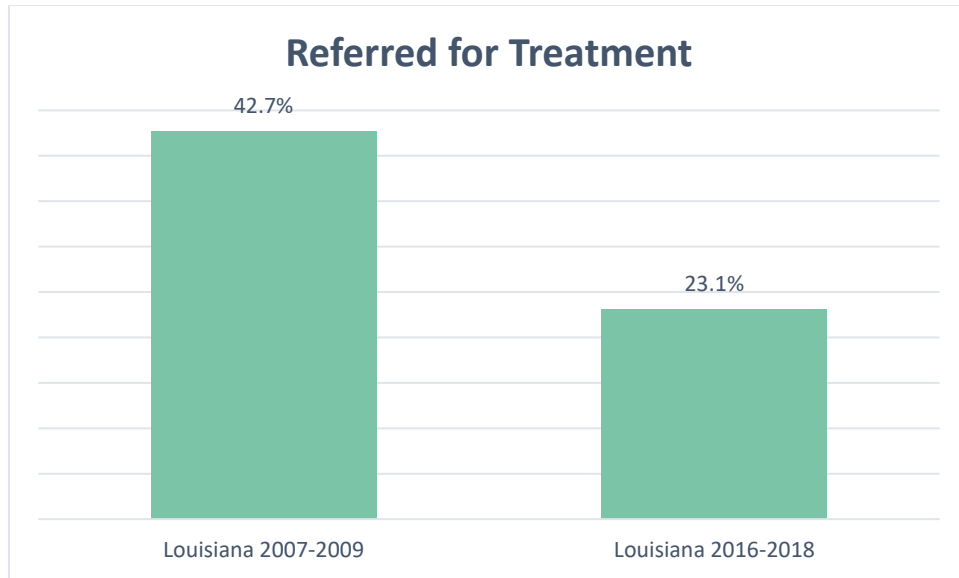


Figure 10: Referred for Treatment in Louisiana

The 2016-18 breakdown of treatment urgency found that 20.8% (95%CI: 16.6-25.0) of 3rd graders need early care and 2.3% (95CI: 1.2-3.4) need urgent care, seen below.

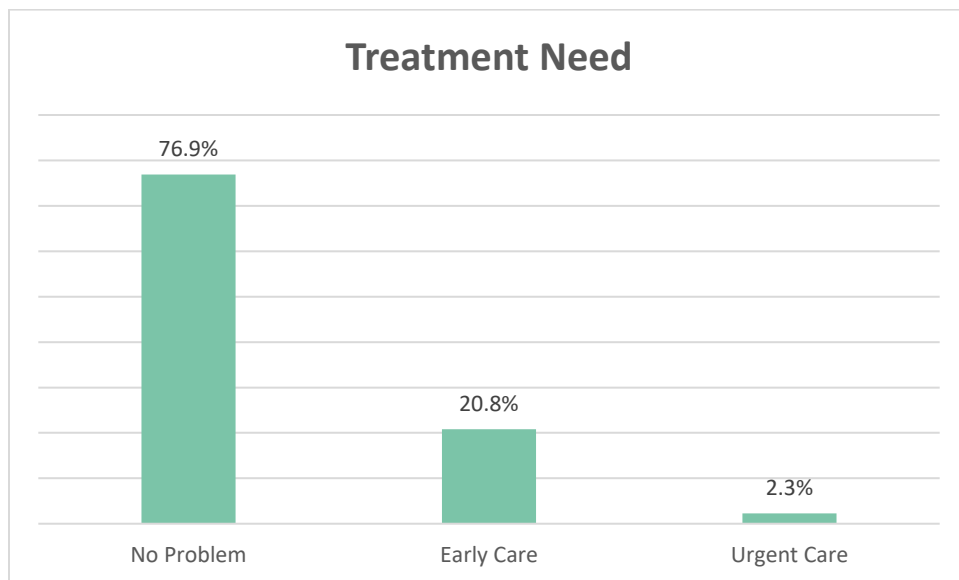


Figure 11: Treatment Need in Louisiana

Among Louisiana 3rd graders who were referred for treatment, there were no significant differences by gender. However, treatment referrals were higher among black 3rd graders (25.2% [95%CI: 18.2-32.2]) than white 3rd graders (19.4% [95%CI: 13.2-25.6]), shown in Figure 12 (below).

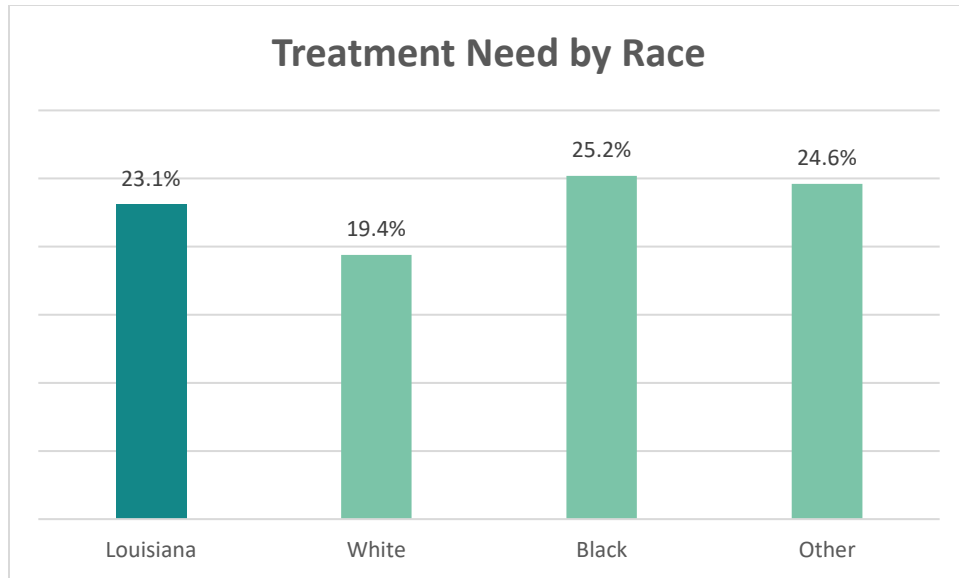


Figure 12: Treatment Need by Race in Louisiana

Additionally, Figure 13 (below) indicates that Louisiana 3rd graders who were referred for treatment varied by region. The Southern Region had the highest prevalence of 3rd graders needing treatment (38.2% [95%CI: 13.1-63.4]), while the Northern Region had the lowest prevalence of 3rd graders needing treatment (14.2% [95%CI: 5.7-22.7]).

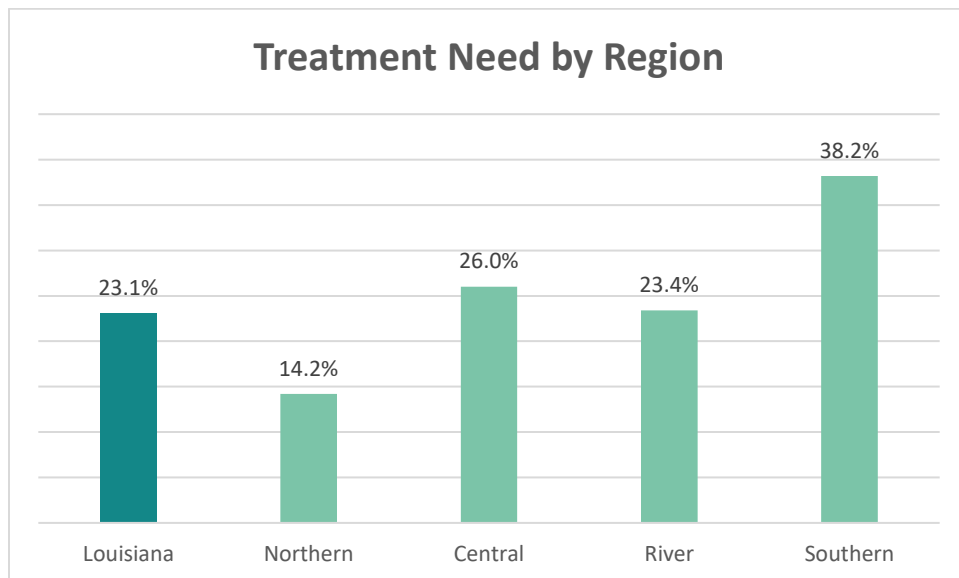


Figure 13: Treatment Need by Region in Louisiana

Parental Survey

The parent questionnaire was sent home prior to the school screening date with the parent letter and permission slip. The parent questionnaire asks the parents to report their child's oral health status, the time since last dental visit, problems accessing dental care, and whether their child has dental insurance.

Figure 14 shows that according to the parents and/or guardians of participating 3rd graders, 14.3% (95%CI: 11.6-17.1) of parents/guardians responded that their 3rd grader had a tooth ache in the past 6 months and 10.5% (95%CI: 8.6-12.4) didn't have dental insurance.

Based on the parent questionnaire, 43.3% (95%CI: 40.0-46.7) of 3rd graders in Louisiana hadn't been to the dentist in the past 6 months, seen below.

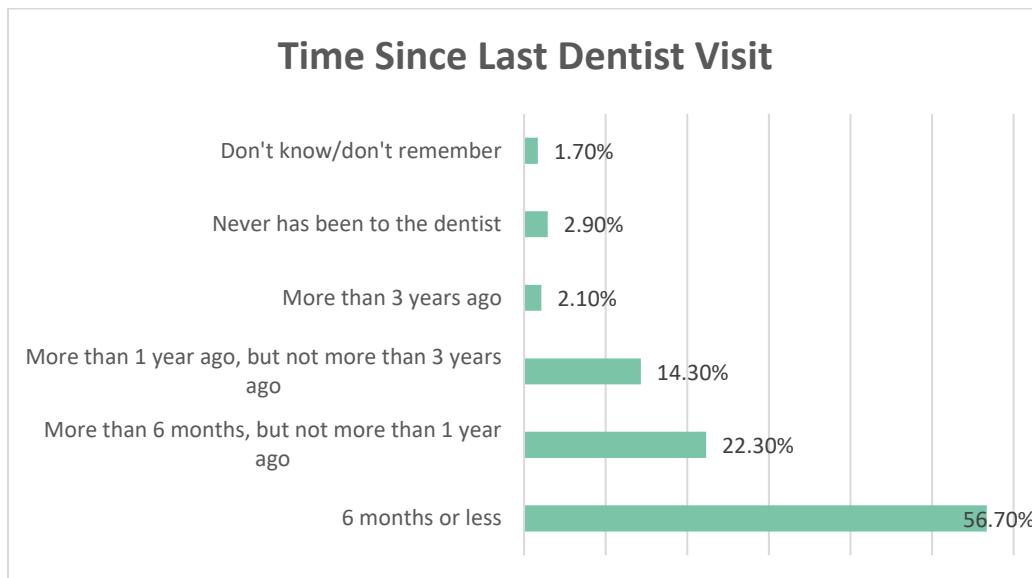


Figure 14: Time since Last Dentist Visit, Parent Questionnaire

According to the parent questionnaire, 6.4% (95%CI: 5.0-7.8) could not access dental care. Figure 15 (below) displays the reported barriers to accessing care. The most frequently reported barrier to care was the cost associated with care (20.8% [95%CI: 11.9-29.8]) followed by lack of transportation (15.9% [95%CI: 7.1-24.8]).

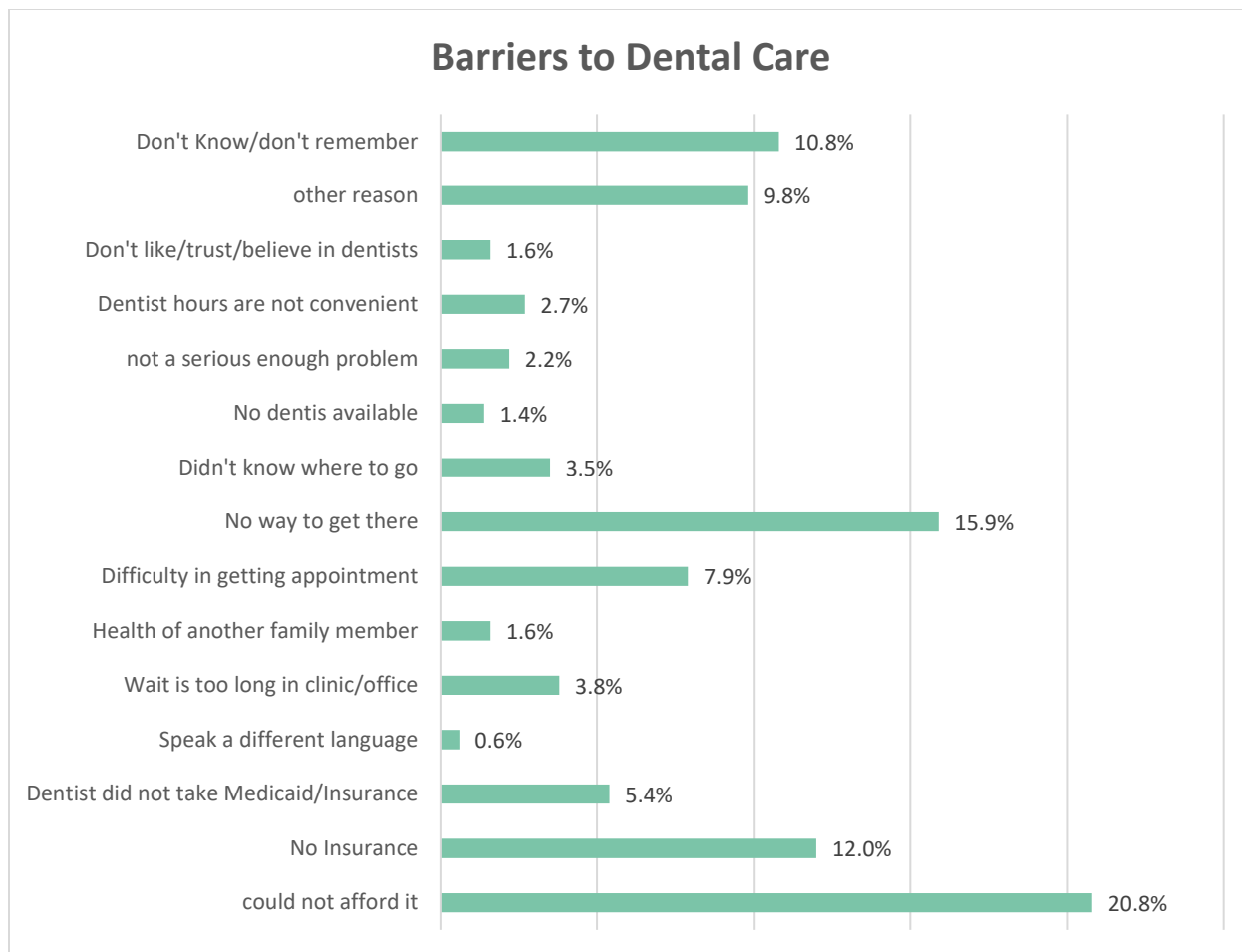


Figure 15: Barriers to Dental Care



The Louisiana Basic Screening Survey (BSS) was conducted during the 2016-2017 and 2017-2018 school years. The purpose of the BSS is to surveil oral health among Louisiana 3rd graders. According to the survey, in Louisiana, approximately one half of children experience cavities before entering fourth grade. Although Louisiana falls below the national average for all oral health indicators, among 3rd graders, Louisiana is very close to meeting the Healthy People 2020 objective for untreated decay and has met the objective for dental sealants. Among Louisiana 3rd graders, caries experience remains high and disparities are present across all of the oral health indicators. Well-Ahead Louisiana Oral Health Promotion works to prevent chronic oral health conditions through fluoridation of community water systems and establishing school-based dental sealant clinics in areas designated as Dental HPSA.

Limitations

There are limitations that should be considered when making conclusions from the Louisiana BSS.

Firstly, barriers to participation are experienced during various steps in Basic Screening Survey Process. The Louisiana Department of Education requires active/positive parental consent in order for students to participate in a screening or sealant clinic. Although the Louisiana Department of Education provided considerable support and guidance with getting into the schools, unfortunately, the state level support did not supersede a few of the local school districts. In two to three districts, principals relied on the Superintendent to decide on the school's participation. Dental hygienists were contracted as screeners for this year's survey, but in previous years, Well-Ahead worked with school nurses. Well-Ahead found that school nurses were more effective at obtaining parental consent than hygienists since they were internal to the school system and did not have to volunteer their time. The volunteering dental hygienists frequently cancelled. The 2007-2009 BSS screened 2,642 children in all 75 schools that were selected. For the 2016-2018 BSS, 1,264 students turned in signed consent forms out of approximately 4380 forms given out; this is a 28.9% response rate. The 2016-2018 BSS were only able to screen students in 49 consenting schools out of the 85 schools selected for screening.

Secondly, the information gathered from the parental survey is self-reported. This information is subject to social desirability bias, which is a type of response bias, since parents may not answer the questions honestly, because they want to be seen in a favorable light.

Thirdly, the children who are included in the BSS are those that were able to submit a signed consent form. Survey bias may be present since Well-Ahead can't be sure that the children, and schools who participated are the same as those who did opt out or did not submit a signed permission slip.

Recommendations

Well-Ahead Louisiana Oral Health Promotion will continue to promote evidence-based strategies to reduce dental disease and oral health disparities.

Recommendations to consider for future implementation of the BSS include:

- Improve connections with the Louisiana Department of Education and school districts to demonstrate the value of utilizing school nurses as parents and children are more likely to participate because of existing relationships.
- Collaborate with elementary schools to conduct classroom oral health presentations prior to actual screening dates to provide for better education and communication on oral health.

Conclusions

Well-Ahead Louisiana will continue to conduct the Basic Screening Survey to provide ongoing surveillance, collection, analysis, and dissemination to improve oral health.

Specific opportunities for improving the oral health status of Louisiana's 3rd grade children include:

- Increase education, awareness, and perception of oral health by exploring approaches for disseminating information pertaining to oral hygiene care and dental sealant information to children and parents through teachers.
- Promote the benefits drinking fluoridated "tap" water to reduce cavities.
- Promote policy change to current Dental Practice Act Designation for dental hygienists.
- Explore amending the current active/positive consent requirement of parents/guardians for all oral health school programs to increase number of participating students to achieve CDC and Healthy People 2020 goals.



- [1] U.S. Department of Health and Human Services, "Oral Health in America: A Report of the Surgeon General--Executive Summary," National Institute of Dental and Craniofacial Research, National Institutes of Health, Rockville, 2000.
- [2] United Health Foundation, "America's Health Rankings: Louisiana," United Health Foundation, 2017.
- [3] United States General Accounting Office, "Oral Health: Dental Disease is a chronic problem among low-income populations," 2000.
- [4] W.-A. O. H. Promotion, "Brushing Up on Children's Oral Health in Louisiana: A Policy Brief," Fluoride Action Network.
- [5] R. Garg, "Bright Smiles for Bright Futures Basic Screening Survey: A Report on the Oral Health Status of Louisiana's Third Grade Children," Department of Health and Hospitals, Baton Rouge, 2011.
- [6] M. P. Research, "Utilization of Dental Services Among Medicaid-Enrolled Children," *Medicare & Medicaid Research Review*, vol. 3, no. 3, 2013.
- [7] U. D. o. H. a. H. Services, "Oral Health in America: A report of the Surgeon General, Executive summary," National Institutes of Health, National Institute of Dental and Craniofacial Research, Rockville, 2000.
- [8] D. o. H. & H. Services, "HPSA Find," HRSA, [Online]. Available: <https://data.hrsa.gov/tools/shortage-area/hpsa-find>. [Accessed 01 November 2018].



MOVING LOUISIANA'S HEALTH FORWARD

Bright Smiles for Bright Futures School Participation Form

School Name: _____

Parish: _____

Address: _____

Phone Number: _____

Fax Number: _____

Yes, we will participate in Bright Smiles for Bright Futures.

No, we will not participate in Bright Smiles for Bright Futures.

If No, please provide reasoning: _____

Principal Name: _____

Nurse Name: _____

Principal Phone: _____

Nurse Phone: _____

Principal Email: _____

Nurse Email: _____

Principal Signature: _____

Nurse Signature: _____

Please return to Kaitlyn King by mail, email or fax: 628 N. 4th Street, Baton Rouge, LA 70821 / Kaitlyn.King@la.gov / 225-342-0886.



LOUISIANA DEPARTMENT OF EDUCATION

July 10, 2017

Dear Superintendent,

The Louisiana Department of Education (LDE) has recently partnered with Well-Ahead Louisiana, an initiative of the Louisiana Department of Health (LDH), for its Bright Smiles for Bright Futures Oral Health Screening Project. This project aims to assess oral health among Louisiana students. In 2009, Bright Smiles for Bright Futures uncovered that a startling 42% of Louisiana third graders had untreated tooth decay, 66% had an untreated cavity, and 43% needed to be referred to a dentist for further treatment.

Studies show that healthy students are better learners. Discomfort from untreated oral health issues can cause difficulty concentrating and school absences. Bright Smiles for Bright Futures gives our students the opportunity for a healthy smile, which is vital to overall health. The project provides a basic, non-invasive oral health screening to third grade students. This means that a licensed dental hygienist screens eligible students for dental sealants, tooth decay, and cavities, and makes appropriate dental recommendations. Screenings are performed on campus and take less than two minutes per student. In addition, students receive brief oral health education and dental supplies.

Schools within your district have been selected to join the Bright Smiles for Bright Futures project. Please see attached for a list of specific schools. Every student deserves the opportunity to be healthy, so I encourage you to be a champion for healthy smiles by supporting the project.

Thank you for your consideration. To opt-in, or for more information, contact Kaitlyn King, Well-Ahead Louisiana's Oral Health Coordinator, at (225) 342-9499 or Kaitlyn.King@la.gov.

Sincerely,

John White
State Superintendent
Louisiana Department of Education

Parham Jaberi, MD, MPH
Assistant Secretary
Office of Public Health

Louisiana Believes



Tooth decay is the most common preventable childhood disease. Is your child at risk?

Dear Parent,

On (Enter Screening Project Date) our school will participate in Well-Ahead Louisiana's Bright Smiles for Bright Futures Project. This project provides a basic oral health screening, at no cost, to our third grade students. This means, with your permission, a licensed dental hygienist will look into your child's mouth and assess the presence of tooth decay, cavities, and dental sealants. The screening is non-invasive and will take less than two minutes. Participating students will receive a brief oral health lesson and a dental treat bag. Your child will also receive a screening summary that will include the hygienist's dental recommendations.

Dental health is often a child's top unmet health need. This project also helps Well-Ahead Louisiana, an initiative of the Louisiana Department of Health, collect data in hopes of securing funding for future oral health programming for Louisiana students. Your child's screening results will be treated as private health information. All data collected will be reported in aggregate form, ensuring the privacy of both students and schools.

Bright Smiles for Bright Futures gives your child the opportunity for a healthy smile, which is vital to overall health. Please complete and return the attached consent form by (**Enter Desired Consent Form Return Date**). If you have any questions, please reach out to Well-Ahead Louisiana's Oral Health Coordinator, Kaitlyn King, at Kaitlyn.King@la.gov. To learn more, visit www.wellaheadla.com.

Thank you!



BSS 2017-2018 Consent Form

Please complete this form and return it to your child's teacher.

Child's Name _____ / / _____
Child's Birth Date (mm/dd/yyyy)

- ☐ Yes, I give permission for my child to have his/her teeth checked.
- ☐ No, I do not give permission for my child to have his/ her teeth checked.

Signature of Parent or Guardian

Date

If you do not want to answer the questions, you may still give permission for your child to have his or her teeth checked. Please answer the following questions to help us learn more about your access to dental care. Your answers will remain private and will not be shared.

1. During the past 6 months, did your child have a toothache more than once, when biting or chewing?

- ☐ No ☐ Yes ☐ Don't know/don't remember

2. About how long has it been since your child last visited a dentist? Include all types of dentists, such as orthodontists, oral surgeons, and all other dental specialists, as well as dental hygienists. (Check one)

- ☐ 6 months or less ☐ More than 3 years ago
☐ More than 6 months, but not more than 1 year ago ☐ Never has been to the dentist
☐ More than 1 year ago, but not more than 3 years ago ☐ Don't know/don't remember

3. What was the main reason that your child last visited a dentist? (Check one)

- ☐ Went in on own for check-up, examination or cleaning. ☐ Went for treatment of a condition that dentist discovered at earlier check-up or examination.
☐ Was called in by the dentist for check-up, examination or cleaning. ☐ Other
☐ Something was wrong, bothering or hurting. ☐ Don't know/don't remember

4. During the past 12 months, was there a time when your child needed dental care but could not get it?

- ☐ No (Go to Question 6) ☐ Yes (Go to Question 5) ☐ Don't know/don't remember (Go to Question 6)

5. The last time your child could not get the dental care he/she needed, what was the *main reason* he/she couldn't get care? (Check one)

- ☐ Could not afford it ☐ Health of another family member ☐ Not a serious enough problem
☐ No insurance ☐ Difficulty in getting appointment ☐ Dentist hours are not convenient
☐ Dentist did not take Medicaid/insurance ☐ No way to get there ☐ Don't like/trust/believe in dentists
☐ Speak a different language ☐ Didn't know where to go ☐ Other reason
☐ Wait is too long in clinic/office ☐ No dentist available ☐ Don't know/don't remember

6. Do you have any kind of insurance that pays for some or all of your child's MEDICAL OR SURGICAL CARE?

- ☐ No ☐ Yes Circle one: Medicaid or Private Insurance

7. Do you have any kind of insurance that pays for some or all of your child's DENTAL CARE?

- ☐ No ☐ Yes Circle one: Medicaid or Private Insurance

8. Which of the following best describes your child? (Check all that apply)

- ☐ White ☐ Black/African American ☐ Hispanic/Latino ☐ Do not wish to provide
☐ Asian ☐ American Indian/Alaska Native ☐ Native Hawaiian/Pacific Islander

Thanks for helping us move Louisiana's health forward!

SCREENING FORM
2016-2017/LA Bright Smiles for Bright Futures

Screen Date:

___/___/___

School Code:	Parish Name:	Screener's Initials:
ID Number:	Grade:	Age:
Gender: <input type="checkbox"/> 1= Male <input type="checkbox"/> 2= Female	Race/Ethnicity: <input type="checkbox"/> 1=White <input type="checkbox"/> 2=Black/African American <input type="checkbox"/> 3=Hispanic/Latino <input type="checkbox"/> 4=Asian <input type="checkbox"/> 5=American Indian/Alaska Native <input type="checkbox"/> 6=Native Hawaiian/Pacific Islander <input type="checkbox"/> 7=Multi-racial <input type="checkbox"/> 9=Unknown	
Untreated Cavities: <input type="checkbox"/> 0=No untreated cavities <input type="checkbox"/> 1=Untreated cavities	Caries Experience: <input type="checkbox"/> 0=No caries experience <input type="checkbox"/> 1=Caries experience	
Sealants on Permanent: <input type="checkbox"/> 0=No sealants Molars: <input type="checkbox"/> 1=Sealants	Total number of Sealants Present: <input type="checkbox"/> 0=No sealants <input type="checkbox"/> 1=One sealant <input type="checkbox"/> 2=Two sealants <input type="checkbox"/> 3=Three or more sealants	
Treatment Urgency: <input type="checkbox"/> 0= No obvious problem <input type="checkbox"/> 1= Early dental care <input type="checkbox"/> 2= Urgent Care	Free or reduced lunch Eligible: <input type="checkbox"/> 0= Not eligible <input type="checkbox"/> 1= Eligible	
Comments: 		

Bright Smiles for Bright Futures 2017-2018**Dear Parent or Guardian,**

Your child _____ was seen today by a hygienist for an oral health screening with your consent.

The following has been reported:

- ☐ No obvious need for dental treatment. See your dentist as regularly scheduled.
- ☐ Your child is in need of non-urgent dental treatment and may have dental caries that should be checked. Please schedule a dental appointment within the next 2 weeks.
- ☐ Your child is in need of urgent dental treatment and may be experiencing dental pain and /or infection. Please schedule a dental appointment within the next 24 hours.

REMINDER:

- ✓ This screening does not take the place of a regular dental check-up.
- ✓ It is very important for your child to brush his/her teeth every day and use toothpaste containing fluoride.

A regular dental check-up should occur every 6 months for most children. If your child needs dental care, please make an appointment with a dentist as soon as possible. If you have a current dentist, please contact them for care. If not, you can find a dental provider from the list provided on the following website. If you should have questions, you may contact MeChaune Butler at (225) 342-7804.

www.wellaheadla.com

THANK YOU FOR ALLOWING YOUR CHILD TO PARTICIPATE!

Brush Up on Healthy Teeth

Simple Steps for Kids' Smiles



1. Start cleaning teeth early.

As soon as the first tooth appears, begin cleaning by wiping with a clean, damp cloth every day. When more teeth come in, switch to a small, soft toothbrush. Begin using toothpaste with fluoride when the child is 2 years old. Use toothpaste with fluoride earlier if your child's doctor or dentist recommends it.

2. Use the right amount of fluoride toothpaste.

Fluoride is important for fighting cavities. But if children younger than 6 years old swallow too much fluoride, their permanent teeth may have white spots. To keep this from happening, use only a small amount of toothpaste (about the size of a pea). Teach your child to spit out the toothpaste and to rinse well after brushing.

3. Supervise brushing.

Brush your child's teeth twice a day until your child has the skill to handle the toothbrush alone. Then continue to closely watch brushing to make sure the child is doing a thorough job and using only a small amount of toothpaste.

4. Talk to your child's doctor or dentist.

Check with the doctor or dentist about your child's specific fluoride needs. After age 2, most children get the right amount of fluoride to help prevent cavities if they drink water that contains fluoride and brush their teeth with a pea-sized amount of fluoride toothpaste twice a day.

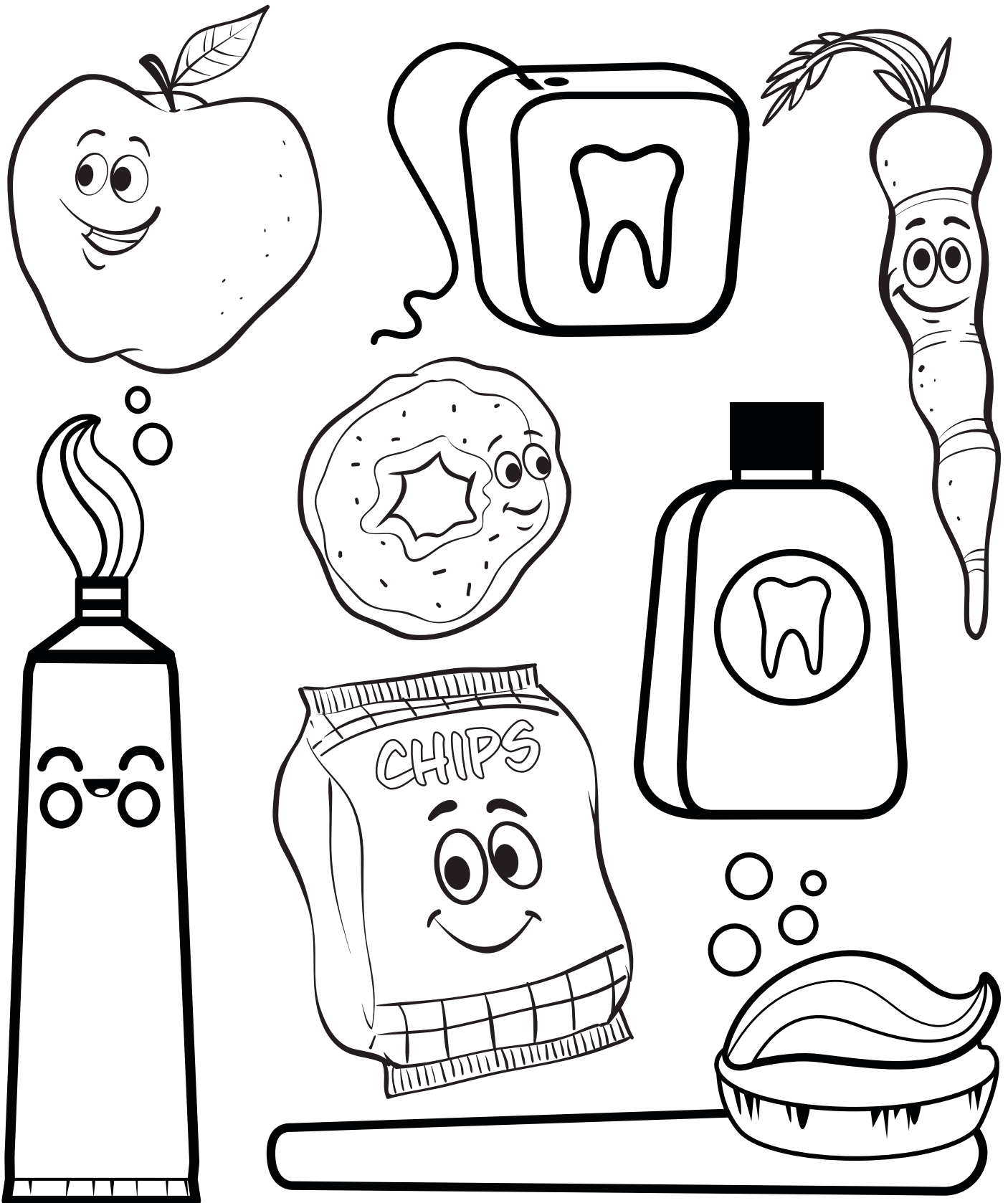
Parents of children older than 6 months should ask about the need for a fluoride supplement if drinking water does not have enough fluoride.

Do not let a child younger than 6 years old use a fluoride mouth rinse unless the child's doctor or dentist recommends it.

Early care for your children's teeth will protect their smile and their health.



Color the things that help you keep a healthy smile.





MOVING LOUISIANA'S HEALTH FORWARD

TEL: 1-844-522-4323 · EMAIL: WELLAHEAD@LA.GOV

June 1, 2018

La Belle Aire Elementary
12255 Tams Drive
Baton Rouge, LA 70815

Dear Principal Cynthia Lipscomb,

Thank you for recently participating in Well-Ahead Louisiana's Bright Smiles for Bright Futures project. In total, 49 schools participated in this project. With your cooperation, we collected valuable data regarding dental sealants, tooth decay, and cavities. In addition, we were able to make dental recommendations to 1262 students throughout the state.

Dental care is often a child's top unmet health need. According to the 2010 Pew Report Card of Children's Dental Health, Louisiana earned a D in addressing the dental needs of children. The data gathered helps provide an accurate depiction of our youth's oral health needs. It will also help us secure funding for future oral health programming that could expand access to preventive dental care for Louisiana students.

For your participation, the Louisiana Oral Health Coalition recognizes La Belle Aire Elementary as a Healthy Smiles Champion. Regional data highlights and additional oral health resources are also included in this packet. Soon, you will receive the official Bright Smiles for Bright Futures Report that will include the project's overall findings.

Healthy students are better learners. You can continue to move Louisiana's health forward by becoming a School WellSpot. Check out www.wellaheadla.com to learn more!

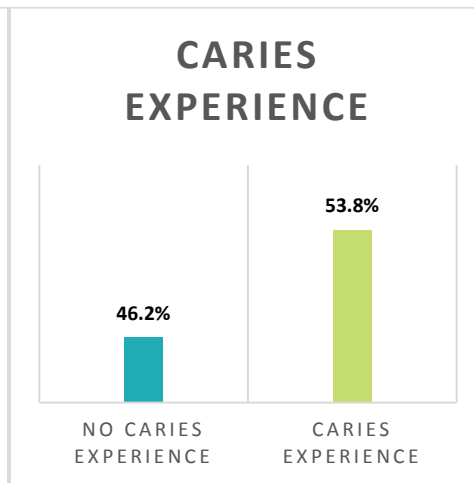
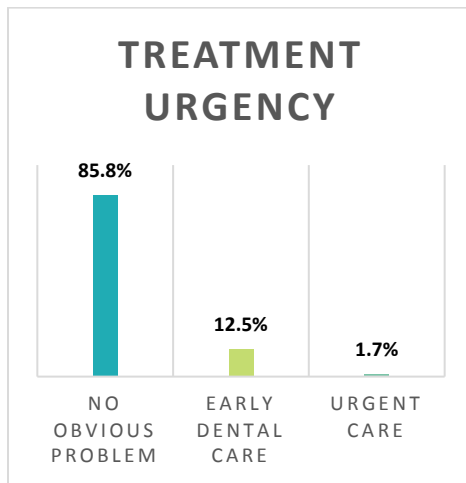
Healthy Wishes,

Kaitlyn King
Oral Health Promotion Coordinator
Well-Ahead Louisiana
Louisiana Department of Health | Office of Public Health



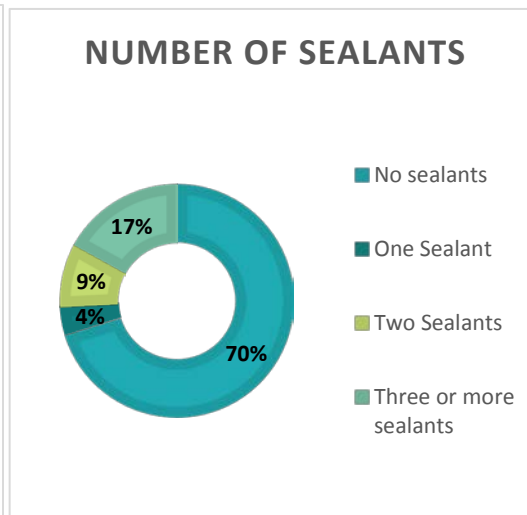
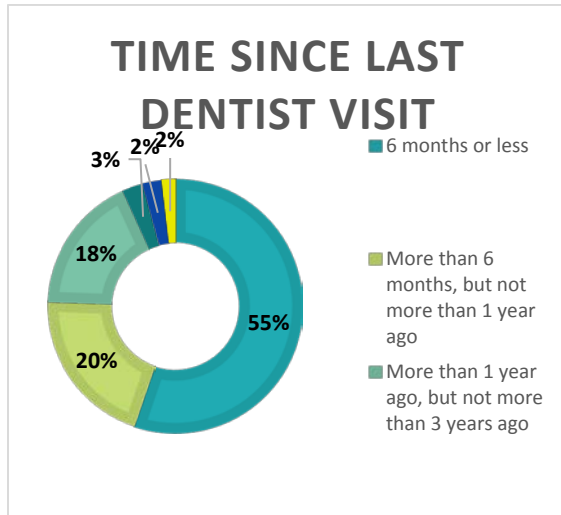
Thank you for your support of the Bright Smiles for Bright Futures project!

In your region, **304** third grade students participated in the oral health screening survey. Below is a summary of the weighted results.



The Northern Region included selected schools from the following

Parishes:
 Bienville
 Bossier
 Caddo
 Caldwell
 Claiborne
 De Soto
 East Carroll
 Franklin
 Jackson
 Lincoln
 Madison
 Morehouse
 Ouachita
 Red River
 Richland
 Tensas
 Union
 Webster
 West Carroll



This data will help Well-Ahead Louisiana promote oral health through education and expanded access to preventative dental services in our state. Thank you for helping us move Louisiana's health forward!



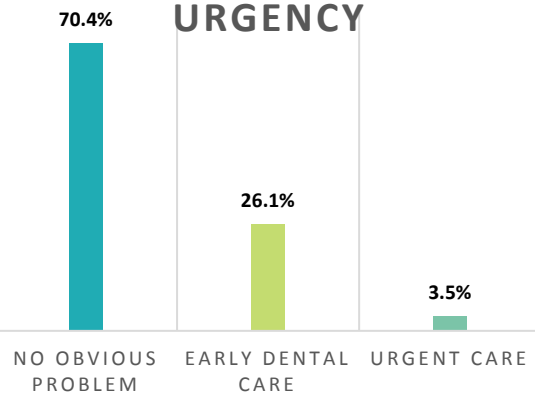
Thank you for your support of the Bright Smiles for Bright Futures project!

In your region, **445** third grade students participated in the oral health screening survey. Below is a summary of the weighted results.

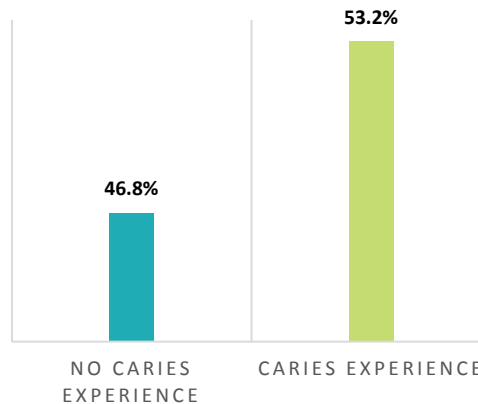
The Southern Region included selected schools from the following Parishes:

Allen
Acadia
Assumption
Calcasieu
Cameron
East Feliciana
Evangeline
Iberia
Iberville
Jefferson Davis
Lafayette
Lafourche
Livingston
St. Helena
St. Landry
St. Martin
St. Mary
St. Tammany
Tangipahoa
Terrebonne
Vermillion
Washington

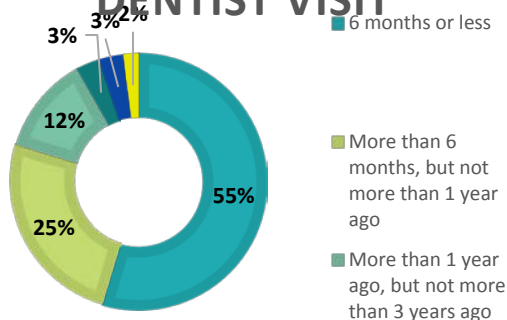
TREATMENT URGENCY



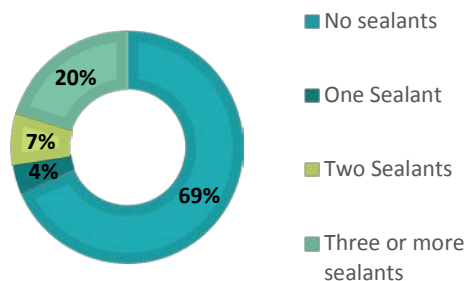
CARIES EXPERIENCE



TIME SINCE LAST DENTIST VISIT



NUMBER OF SEALANTS



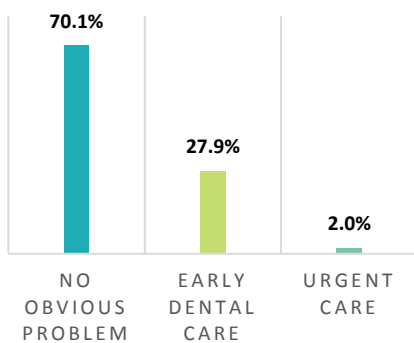
This data will help Well-Ahead Louisiana promote oral health through education and expanded access to preventative dental services in our state. Thank you for helping us move Louisiana's health forward!



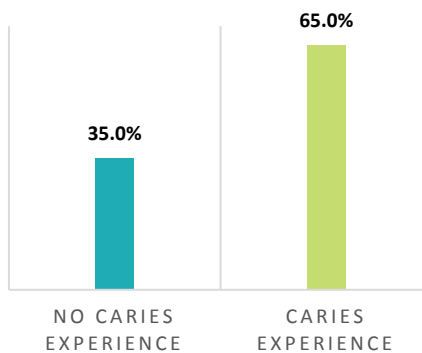
Thank you for your support of the Bright Smiles for Bright Futures project!

In your region, **125** third grade students participated in the oral health screening survey. Below is a summary of the weighted results.

TREATMENT URGENCY



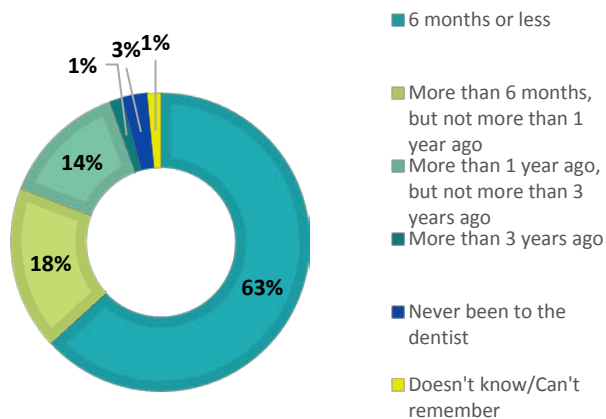
CARIES EXPERIENCE



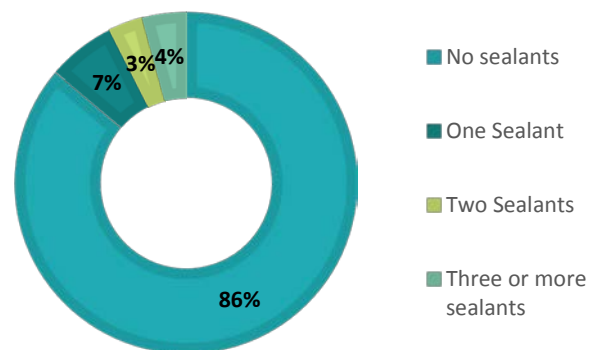
The Central Region included selected schools from the following Parishes:

Avoyelles
Beauregard
Catahoula
Concordia
Grant
La Salle
Natchitoches
Rapides
Sabine
Vernon
Winn

TIME SINCE LAST DENTIST VISIT



NUMBER OF SEALANTS



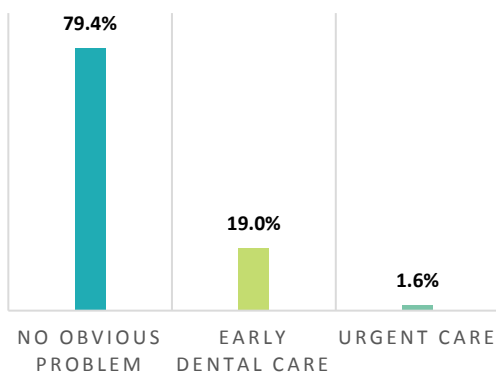
This data will help Well-Ahead Louisiana promote oral health through education and expanded access to preventative dental services in our state. Thank you for helping us move Louisiana's health forward!



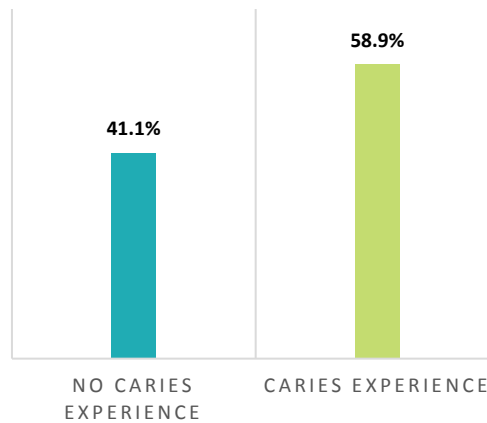
Thank you for your support of the Bright Smiles for Bright Futures project!

In your region, **390** third grade students participated in the oral health screening survey. Below is a summary of the weighted results.

TREATMENT URGENCY



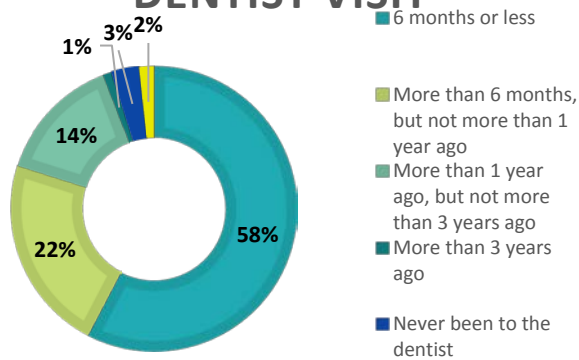
CARIES EXPERIENCE



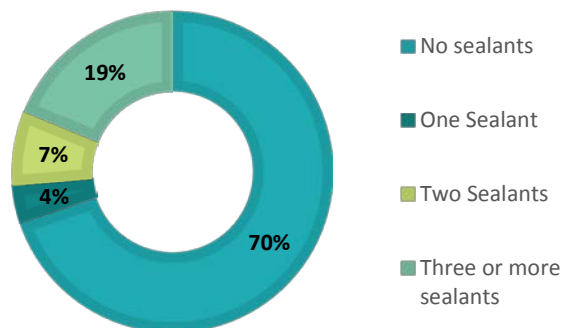
The River Region included selected schools from the following Parishes:

Ascension
East Baton Rouge
Jefferson
Orleans
Plaquemines
Pointe Coupee
Saint Bernard
St. Charles
St. James
St. John the Baptist
West Baton Rouge
West Feliciana

TIME SINCE LAST DENTIST VISIT



NUMBER OF SEALANTS



This data will help Well-Ahead Louisiana promote oral health through education and expanded access to preventative dental services in our state. Thank you for helping us move Louisiana's health forward!



Certificate of Recognition

is hereby awarded to

SCHOOL NAME HERE

Thank you being a champion for healthy smiles!

Granted May 20, 2018

This certificate is presented on behalf of the partners of the Louisiana Oral Health Coalition.

