2016-2017 Third Grade Oral Health Basic Screening Survey Surveillance Report

Georgia Department of Public Health
Division of Epidemiology
Maternal and Child Health Epidemiology Section

Georgia Department of Public Health

Acknowledgments

Kathleen E. Toomey, M.D., M.P.H.
Commissioner, State Health Officer

Cherie L. Drenzek, D.V.M., M.S.
State Epidemiologist, Chief Science Officer

LaToya Osmani, M.P.H.
Director, Division of Health Promotion

We would like to extend our deepest gratitude to the following members of the Georgia Oral Health Team, without whom this report would not be possible: Dr. Adam Barefoot, D.M.D., M.P.H. (Director of Oral Health), Dixianne Parker, R.D.H., M.Ed. (Fluoridation Administrator/Educator), Dr. Jorge Bernal, D.D.S., M.P.H. (Sealant Coordinator), Mira Coulter (Program Manager), and Carol Smith R.D.H., M.S.H.A. (former Program Manager).

We would also like to thank the Georgia Department of Public Health district dentists and hygienists for their dedication to the collection of data carried out in elementary schools around the state. Oral diseases, especially dental caries, affect the overall health of children. By assisting the state office in screening third grade children and documenting their findings, the district staff assisted in measuring the burden of oral disease among third grade students.

For more information on Georgia Oral Health Surveillance, please contact:
Oral Health Program
Georgia Department of Public Health
2 Peachtree St, NW, 11th floor
Atlanta, Georgia, 30303-3142
Phone: 404-657-6639
Website: https://dph.georgia.gov/OralHealth

Oral Health Epidemiology
Georgia Department of Public Health
2 Peachtree St, NW, 14th floor
Atlanta, Georgia, 30303-3142
Phone: 404-232-7072

Special Thanks!

We would like to thank all the parents and children who participated in our survey and screening. Without their responses, this report would not be possible. The information contained in this report will advance our understanding of the health of Georgia's children.

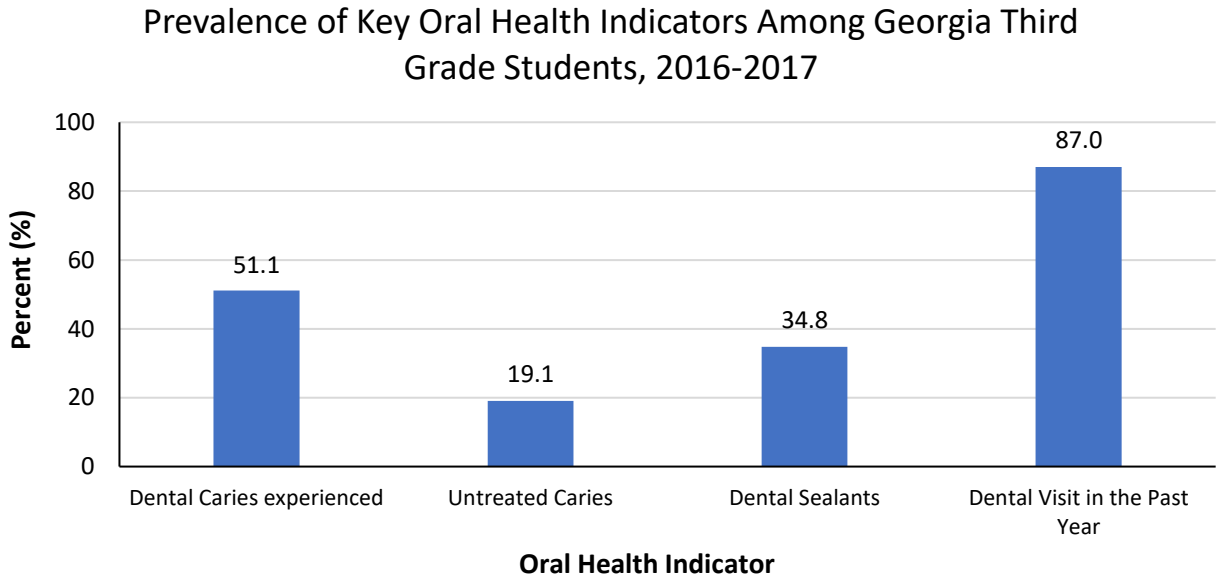
We would also like to thank the Association of State and Territorial Dental Directors (ASTDD) for their continued technical support and guidance. This publication was supported by Cooperative Agreement Number 1U01DP003178-01 from the CDC.

Suggested Citation: Edward BS, Meyn A, Stephens FK, Livings MS, Ballester L, Kanu FA, Smith C, Bryan JM, Drenzek C. Third Grade Oral Health Basic Screening Survey Surveillance Report 2016. Georgia Department of Public Health, Epidemiology Division, Maternal and Child Health Epidemiology Section, September 2020.

Table of Contents

Executive Summary

During the 2016-2017 academic year, the Georgia Department of Public Health (GDPH) conducted a statewide Third Grade Basic Screening Survey (BSS) of third grade students enrolled in public and charter schools in Georgia. A total of 3,240 third grade students from 88 schools participated in the survey. All third grade students at each participating school received a consent form for dental screening and parent questionnaire. Students who returned a completed parent questionnaire and consent document were screened at school by dental health professionals for key oral health indicators.



- **Dental Caries Experienced**
  Dental caries experienced includes any tooth decay or cavities, treated or untreated. In the 2016-2017 academic year, 51% of third grade students enrolled in public and charter schools in Georgia had ever experienced dental caries.

- **Untreated Dental Caries**
  Untreated dental caries includes any tooth decay or cavities that have not been treated by a dentist. In the 2016-2017 academic year, 19% of third grade students enrolled in public and charter schools in Georgia had untreated dental caries.

- **Dental Sealants**
  Dental sealants refers to sealants applied to the first permanent molars. In the 2016-2017 academic year, 35% of third grade students enrolled in public and charter schools in Georgia had received dental sealants.

- **Dental Visit in the Past Year**
  In the 2016-2017 academic year, 87% of third grade students enrolled in public and charter schools in Georgia visited a dental professional, including all types of dentists (orthodontists, oral surgeons, all other dental specialists) and dental hygienists, in the previous 12 months.

Introduction

Oral health is critical to a child's overall health, wellbeing, and performance at school. Children with poor oral health (e.g., untreated dental caries, untreated dental disease) experience substantial pain that can lead to problems with eating, speaking, and learning.[1] Poor oral health is associated with both poor academic achievement and higher absenteeism in school.[2] The Georgia Department of Public Health (GDPH), with the support of the Department of Education (DoE), aims to improve student success in school by improving children's overall oral health.[2]

The Third Grade Basic Screening Survey (BSS) was developed by the Association of State and Territorial Dental Directors (ASTDD) with the purpose of providing a framework for states and local health departments to collect timely, consistent, and inexpensive oral health data. In Georgia, the BSS is used to obtain data on oral health status, risk factors, and barriers to care and prevention services among third grade school children. The most recent BSS was conducted among third grade children enrolled at public and charter elementary schools in Georgia during the 2016-2017 academic year.

The purpose of this report is to describe oral health outcomes and related characteristics among third grade students enrolled at public and charter elementary schools in Georgia from 2016-2017. BSS data provide an understanding of the oral health status of third grade students in Georgia schools as measured by the prevalence of dental caries experienced, untreated caries, dental sealants, need for dental care and fluorosis. The data also assess home and neighborhood characteristics relevant to oral health, maternal oral health history, child behavior related to oral health, and access to healthcare. Disparities among third grade students by demographic groups (age, gender, race and ethnicity), urban/rural status, and eligibility for the free and reduced lunch program (FRLP) are presented in this report.

GDPH and its partners can improve the oral health outcomes of Georgia's students by better understanding these key oral health indicators among third grade children in Georgia. Through this improved understanding, GDPH can target programming and resources to improve the oral health outcomes of Georgia's children to support their overall health and academic success.

Methodology

Sample

Sample Frame: For the 2016-2017 academic year, the Georgia Department of Education's (DoE) list of public elementary and charter schools was used to create the sampling frame.

Sample: Contrary to ASTDD guidance to perform a stratified systematic random sample, a simple random sample was used to identify the initial list of 100 elementary schools to recruit for participation in the BSS. DoE support of the BSS was indicated in a letter sent to all schools sampled to encourage participation. Of the 100 schools initially sampled, 30 schools declined to participate. A convenience sample of schools in primarily rural areas was used to partially replace non-participating schools. The inclusion of replacement schools resulted in a total of 88 schools participating in the BSS. Every third grade student seven to eleven years of age at participating schools was included in the sample.

Data Collection

Respondents: Data collection occurred from September 2016 to March 2017. All third grade students at each participating school took a hard-copy consent form and survey home to be signed and completed by a parent or guardian. Students who returned a signed consent form were screened at school by a dental professional. 3,282 students met eligibility criteria by being in third grade (7-11 years) at a participating school and returning the consent form. A total of 3,240 met eligibility criteria and completed dental screeners and questionnaires. Of these, five were excluded in final analyses due to missing information.

Data Collection Tools: The parent survey questionnaire included questions on home and neighborhood characteristics, maternal tooth extraction history, child's consumption of sweetened beverages, child's history of toothache, and child's health care access (Appendix I). Dentists and dental hygienists screened for untreated decay, past caries experience, sealants on first permanent molars, treatment urgency and fluorosis (moderate or severe) (Appendix II). Data on children's age, race, ethnicity, and eligibility for the free or reduced school lunch program were collected.

Data Entry

Data were manually entered from hard-copies of dental screening forms and parent questionnaires into the State electronic notifiable disease Surveillance System (SendSS), an electronic disease reporting system with web-based survey module capabilities. Data validation was completed through review of every survey entered by a second person; if any inconsistencies were identified, the two persons who performed the data entry plus the lead epidemiologist determined which data to keep.

Weighting and Weighting Scheme

Analysis Weight: To account for non-proportional sampling by urban-rural status, data were weighted by public health (PH) district and urban-rural status of each participating school. Each participating student within a school was assigned the same weight. The non-standard process of replacing schools could limit the generalizability of resulting estimates.

Analysis Clusters: Within-school similarities between students enrolled at the same school were accounted for by including the school students were enrolled in as clusters in weighted estimates.

Data Analysis

SAS 9.4 (Cary, NC) was used for all data analyses to account for complex sampling design and to construct estimates and 95% confidence intervals (95% CI). The data was analyzed by univariate descriptive statistics to provide prevalence estimates of each outcome. Bivariate analyses of each outcome and demographic characteristic were performed to examine the relationship between variables.

Participant Characteristics

Characteristic	*Population of Third Grade Students in Georgia* n	%	Respondents (unweighted) ($n_{unweighted}$ = 3,235) n	% [95% CI]	Respondents (weighted) ($n_{weighted}$ = 133,377) n	% [95% CI]
Gender						
Male	66,761#	51.5	1,548	48.0 [46.3, 49.7]	63,716	48.0 [46.0, 49.9]
Female	62,938#	48.5	1,680	52.0 [50.3, 53.7]	69,113	52.0 [50.1, 54.0]
Race/Ethnicity						
Hispanic	20,791#	16.0	593	18.3 [17.0 19.7]	26,923	20.2 [12.0, 28.3]
Black, Non-Hispanic	47,733#	36.8	827	25.6 [24.1, 27.1]	36,060	27.0 [19.9, 34.1]
White, Non-Hispanic	50,728#	39.1	1,411	43.6 [41.9, 45.3]	53,064	39.8 [30.7, 48.9]
Other, Non-Hispanic	10,313#	8.0	265	8.2 [7.2, 9.1]	11,629	8.7 [5.0, 12.4]
Other/Unknown*	134#	0.1	139	4.3 [3.6, 5.0]	5,701	4.3 [3.0, 5.5]
Age						
Under 8 years	-	-	18	0.6 [0.3, 0.8]	937	0.7 [0.2, 1.2]
8 years	-	-	2,290	71.1 [69.5, 72.6]	96,011	72.3 [68.9, 75.7]
9 years	-	-	856	26.6 [25.0, 28.1]	33,956	25.6 [22.3, 28.9]
Over 9 years	-	-	58	1.8 [1.3, 2.3]	1,856	1.4 [0.8, 2.0]
Eligible for Free-Reduced Lunch Program (FRLP)						
Yes	60,314¥	58.3	1,973	62.8 [61.1, 64.5]	78,120	60.4 [49.2, 71.5]
No	43,233¥	41.8	1,167	37.2 [35.5, 38.9]	51,305	39.6 [28.5, 50.8]
Urban-Rural Status						
Urban	79,183¥	63.9	1,419	43.9 [42.1, 45.6]	84,602	63.4 [51.2, 75.7]
Rural	44,821¥	36.1	1,816	56.1 [54.4, 57.8]	48,774	36.6 [24.3, 48.8]

*Other/Unknown race/ethnicity includes all participants with missing or unknown ethnicity or race; #Source: Georgia Department of Education; ¥Source: Georgia 3rd Grade Basic Screening Survey sampling frame; **Note**: Participants with missing demographic data are excluded from the respective population, unweighted and weighted sections of the table; totals may not sum to 100% due to rounding.

Key Characteristics of Participating Third Grade Students

- Slightly more respondents were female (52%) than male (48%), which differed slightly from the population estimates of third graders (48% female, 52% male).
- The largest weighted proportion of respondents were Non-Hispanic White (40%) compared to Non-Hispanic Black (27%) and Hispanic (20%). Unweighted, 44% of sampled students were Non-Hispanic White, 26% were Non-Hispanic Black and 18% were Hispanic. Respondents were less likely to be Non-Hispanic Black than the population of 3rd grade students in Georgia.
- Just under three quarters of respondents were eight years old in unweighted (71%) and weighted (72%) distributions.
- About 60% of respondents were eligible for the FRLP in weighted and unweighted analysis, which was similar to the proportion eligible in the population (58%). FRLP serves as an indicator of the proportion of third grade students who participated in the survey from low-income households.
- 63% of respondents were categorized as attending school in an urban area and 37% in a rural area, which differs from the unweighted distribution of urban-rural status in the sample (44% urban, 54% rural). The process of weighting creates estimates that more closely match the rural-urban distribution in the population, increasing representativeness of results by geographic distribution.

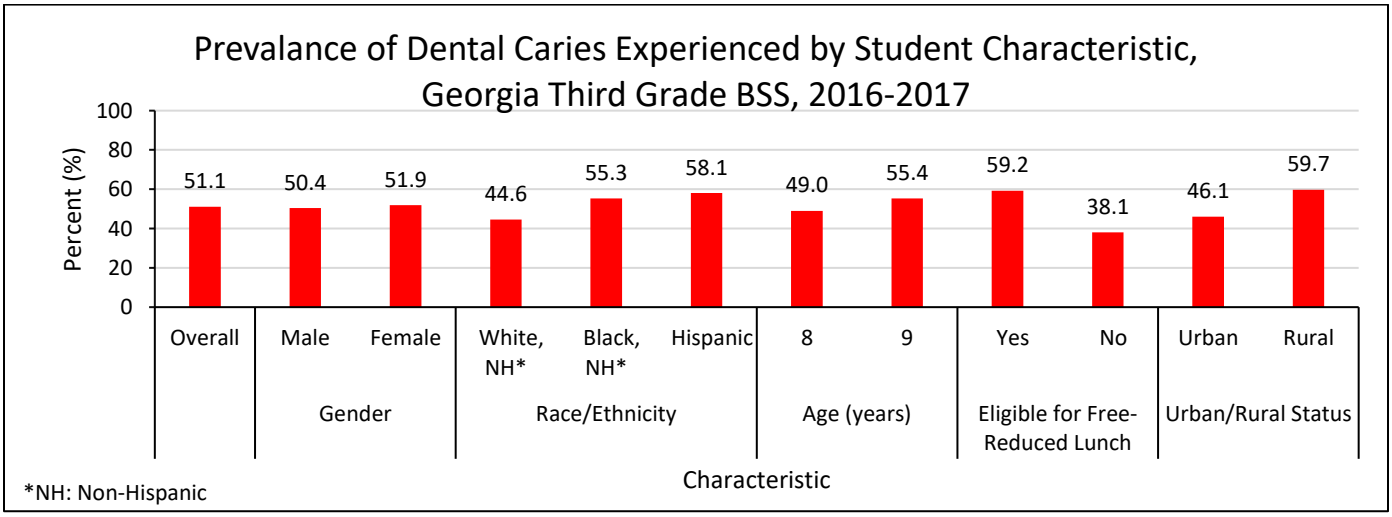
Dental Caries Experienced

Dental caries experienced includes any tooth decay or cavities, treated or untreated.

Characteristic	Any Dental Caries %	95% CI
Overall	**51.1**	**46.1, 56.0**
Gender		
Male	50.4	45.2, 55.5
Female	51.9	46.0, 57.8
Race/Ethnicity		
White Non-Hispanic	44.6	37.8, 51.4
Black Non-Hispanic	55.3	50.8, 59.8
Hispanic	58.1	50.2, 66.0
Age		
8 years	49.0	44.3, 53.7
9 years	55.4	48.3, 62.4
Eligible for FRLP		
Yes	59.2	56.1, 62.4
No	38.1	31.5, 44.7
Urban-Rural Status		
Urban	46.1	39.5, 52.6
Rural	59.7	56.5, 62.9

Key Findings

- In the 2016-2017 academic year, 51% of third grade students experienced dental caries in their primary or permanent teeth
- Hispanic (58%) and black, non-Hispanic (55%) students had a higher, though not statistically significantly different, prevalence of dental caries than white, non-Hispanic students (45%)
- Students eligible for FRLP (59%) had a higher prevalence of dental caries experience than students not eligible for FRLP not (38%)
- A greater proportion of rural students (60%) had any dental caries than urban students (46%)



How Can Georgia Decrease the Prevalence of Dental Caries Experienced by Children?

By encouraging parents/caregivers to brush their child's teeth as early as possible: As soon as a child's first tooth appears, parents/caregivers should begin brushing the child's teeth twice a day with a soft toothbrush and fluoridated toothpaste the size of a grain of rice.

By offering children regular dental assessments: Children should see a dentist by 12 months of age or at the time of the first tooth eruption, whichever comes first, per the American Academy of Pediatric Dentistry. Children ages 6-12 years should see a dentist every six months, or as indicated by their dental professional.[9]

By offering oral health education to elementary school staff, children, and parents/caregivers: Oral health education could promote good oral health habits, encourage healthy eating, and discuss how to control bacteria transmission.

By integrating oral health care into comprehensive health care: Medical providers could offer anticipatory guidance to children and caregivers, conduct oral screenings and caries risk assessments, and apply topical fluoride varnish every three to six months, depending on risk factors. Training medical providers on fluoride varnish application could increase the likelihood children will receive fluoride varnish as often as recommended.

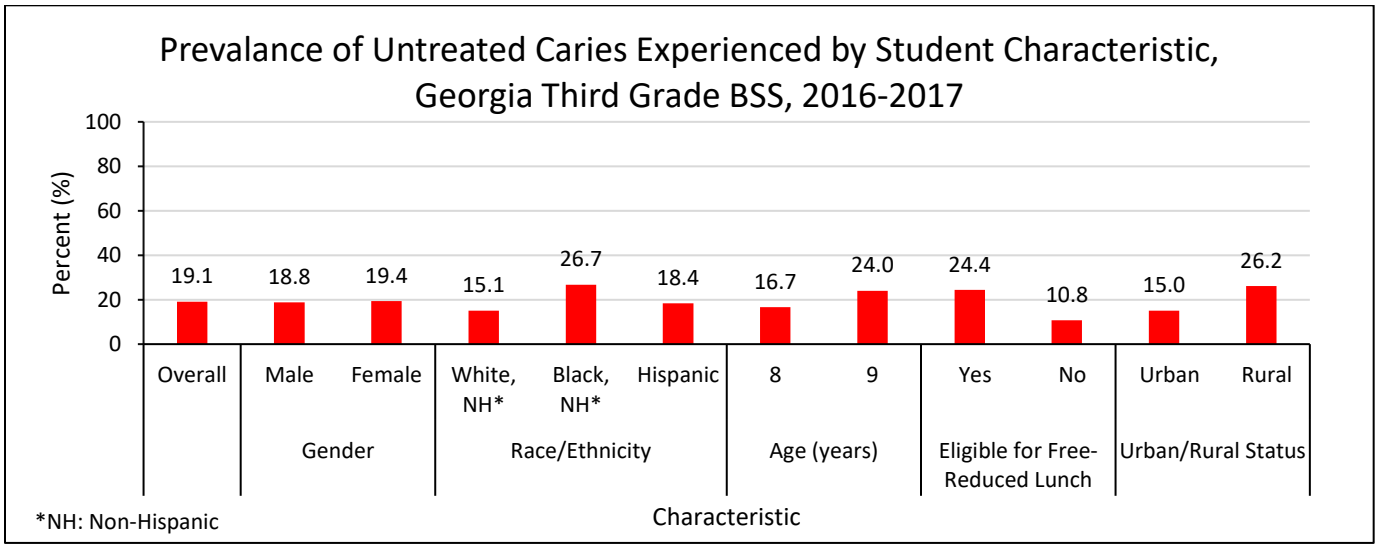
Untreated Caries

Untreated caries includes any tooth decay or cavities that have not been treated by a dentist.

Characteristic	Untreated Caries %	95% CI
Overall	**19.1**	**15.4, 22.8**
Gender		
Male	18.8	15.0, 22.5
Female	19.4	15.3, 23.5
Race/Ethnicity		
White, Non-Hispanic	15.1	10.2, 20.0
Black, Non-Hispanic	26.7	23.0, 30.3
Hispanic	18.4	14.0, 22.7
Age		
8 years	16.7	13.3, 20.0
9 years	24.0	18.6, 29.5
Eligible for FRLP		
Yes	24.4	21.0, 27.7
No	10.8	6.7, 14.8
Urban-Rural Status		
Urban	15.0	10.8, 19.2
Rural	26.2	21.8, 30.6

Key Findings

- In the 2016-2017 academic year, 19% of third grade students had any dental caries that had not been treated by a dentist
- Black, Non-Hispanic children had a higher prevalence of untreated dental caries (27%) than white, non-Hispanic children (15%)
- Students eligible for FRLP had over twice the prevalence (24%) of untreated caries than students who were not eligible for FRLP (11%)
- Rural students had a greater prevalence of untreated caries (26%) than urban students (15%)



How Can Georgia Decrease the Prevalence of Untreated Caries Experienced by Children?

By encouraging caregivers of elementary school-aged children to take their children for regular dental visits: Regular dental visits would allow dentists to treat children's caries and to offer preventive services such as dental cleanings, sealants, and fluoride varnish to reduce risk of future decay development. Regular dental visits also provide opportunities to educate child caregivers on healthy oral habits and nutritional recommendations that lower caries risk.

By shifting the beliefs of parents/caregivers on good oral health: Using culturally sensitive messaging, oral health providers could aim to educate parents/caregivers about the need for the primary dentition and good oral health, as well as the negative impact of early childhood caries, including physical, mental, emotional, social, developmental, and societal outcomes.

By developing referral pathways for dental services. A referral resource list could be created and made available for use by school nurses and counselors. Children with untreated caries need routine monitoring in a dental practice or clinic that will follow-up with care. Follow-up care may include nontraditional care delivery models such as teledentistry and mobile dental services to reduce barriers to accessing dental care.

By encouraging dental providers to use alternative care when necessary: Dentists could consider using Atraumatic Restorative Treatment (ART) or silver diamine fluoride treatment, if necessary, when treating children with behavior management problems.

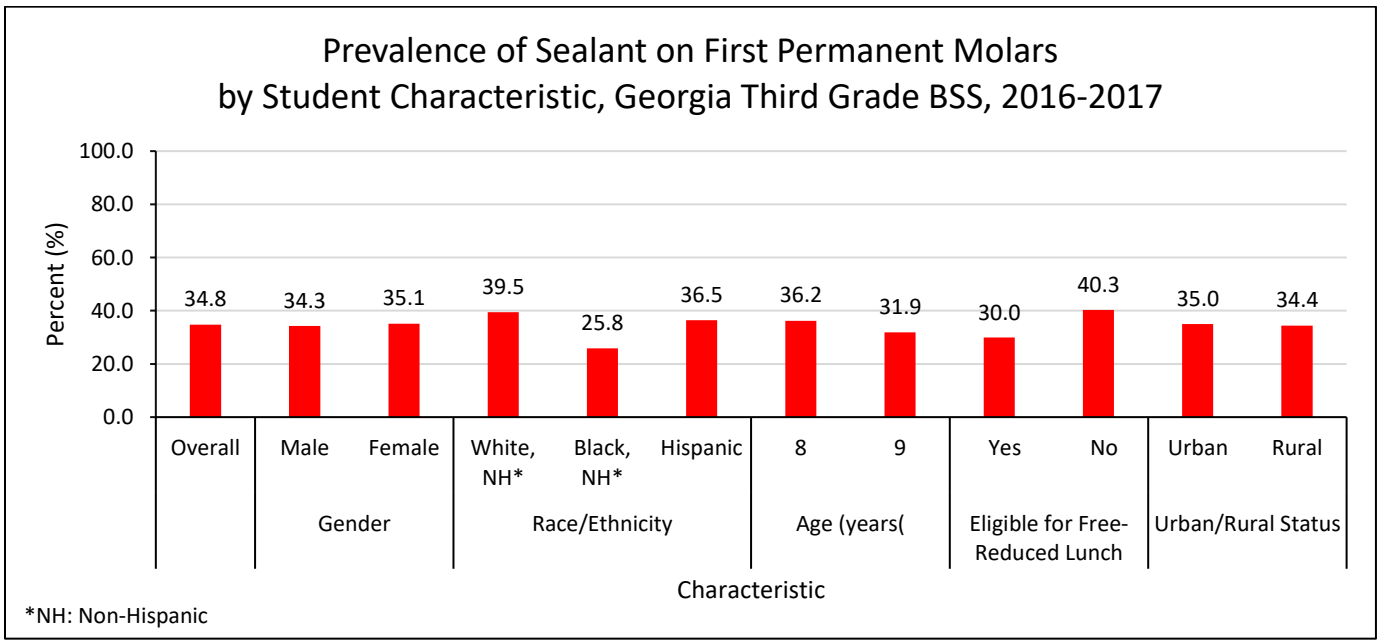
Sealant on First Permanent Molars

Sealant on first permanent molars refers to third grade children who had dental sealants applied to their first permanent molars.

Characteristic	Sealant on First Permanent Molars %	95% CI
Overall	**34.8**	**29.7, 39.8**
Gender		
Male	34.3	28.9, 39.6
Female	35.1	29.7, 40.5
Race/Ethnicity		
White, Non-Hispanic	39.5	32.2, 46.8
Black, Non-Hispanic	25.8	19.2, 32.4
Hispanic	36.5	30.3, 42.7
Age		
8 years	36.2	31.0, 41.5
9 years	31.9	24.7, 39.0
Eligible for FRLP		
Yes	30.0	25.4, 34.6
No	40.3	31.1, 49.5
Urban-Rural Status		
Urban	35.0	28.3, 41.7
Rural	34.4	27.0, 41.7

Key Findings

- In the 2016-2017 academic year, 35% of third grade students had a sealant applied to their first permanent molars
- White, Non-Hispanic children had the highest prevalence of sealant (40%) and black, non-Hispanic children had the lowest (26%), though this difference was not statistically significant
- Students eligible for FRLP had a lower prevalence (30%), though not significantly lower, of sealants than students not eligible for FRLP (40%)
- The prevalence of sealants was similar among both rural students and urban students



How Can Georgia Increase the Proportion of Children Receiving Dental Sealants on their First Permanent Molars?

By promoting prevention services: Promoting the benefits of oral health preventive services to all healthcare providers may increase the application of dental sealants on first permanent molars.

By creating awareness: Bringing awareness to parents and caregivers on a child's need to see a dentist by 12 months of age or first tooth eruption, per the American Academy of Pediatric Dentistry, may also increase the application of sealants on first permanent molars. Children ages 6-12 years should see a dentist every 6 months, or as indicated by their dental professional.[9]

By expanding sealant programs: Expanding school-based sealant programs that bring oral health prevention services to the child, thus reducing barriers to accessing care, including transportation and time off work for caregivers, may allow sealants more available to children.

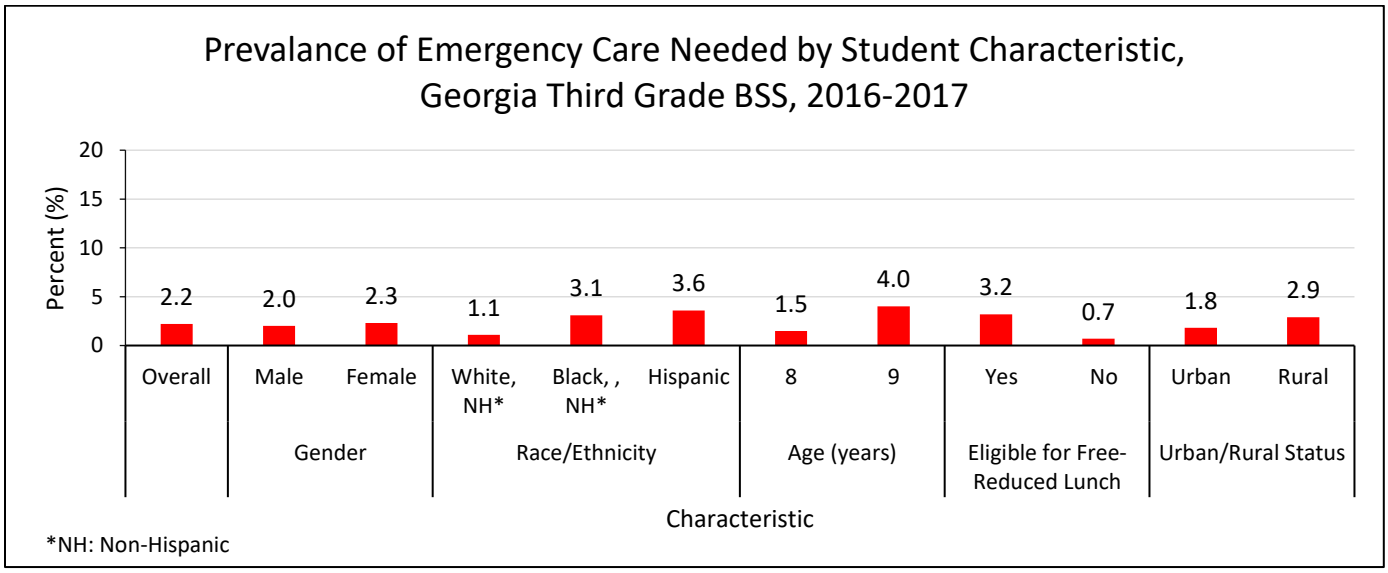
Emergency Care Needed

Emergency care needed refers to third grade children who were in urgent need of dental care, or who needed immediate emergency dental care, according to the licensed dental provider examining the child.

	Emergency Care Needed	
Characteristic	**%**	**95% CI**
Overall	**2.2**	**1.4, 2.9**
Gender		
Male	2.0	1.1, 3.0
Female	2.3	1.3, 3.4
Race/Ethnicity		
White, Non-Hispanic	1.1	0.4, 1.9
Black, Non-Hispanic	3.1	1.7, 4.5
Hispanic	3.6	1.7, 5.5
Age		
8 years	1.5	0.8, 2.1
9 years	4.0	1.6, 6.4
Eligible for FRLP		
Yes	3.2	2.3, 4.1
No	0.7	0.2, 1.2
Urban-Rural Status		
Urban	1.8	0.8, 2.7
Rural	2.9	1.8, 4.0

Key Findings

- In the 2016-2017 academic year, 2% of third grade students were in urgent need of dental care
- Hispanic and black, non-Hispanic students had a higher prevalence of needing urgent dental care (Hispanic – 4%, black, non-Hispanic - 3%), though not statistically significant, than white, non-Hispanic students (1%)
- A higher prevalence of students eligible for FRLP (3%) had need for urgent dental care than those who were not eligible for FRLP (1%)



How Can Georgia Decrease the Proportion of Children who Need Emergency Dental Care?

By maintaining an up-to-date referral list: Each public health district could maintain an oral health care referral list, updated yearly. Parents and caregivers could be directed to contact the public health district's oral health team for assistance when a referral is needed. In districts without active oral health programs, external partners such as the Georgia Oral Health Coalition, Healthy Mothers Healthy Babies Coalition, and the Georgia Dental Association, could serve as a resource for information on local providers and reduced cost dental service.

By educating school nurses and child care workers about oral health emergencies and risk factors: School nurses and child caretakers could be educated to distinguish between whether a dentist or emergency room care is the best referral choice.

By encouraging caregivers of elementary school-aged children to take their children for regular dental visits: Regular dental visits would allow dentists to treat children's caries and to offer preventive services such as dental cleanings, sealants, and fluoride varnish to reduce chances of needing emergency dental care.

By encouraging dental providers to use alternative care when necessary: Dentists could consider using Atraumatic Restorative Treatment (ART) or silver diamine fluoride treatment, if necessary, when treating children with behavior management problems.

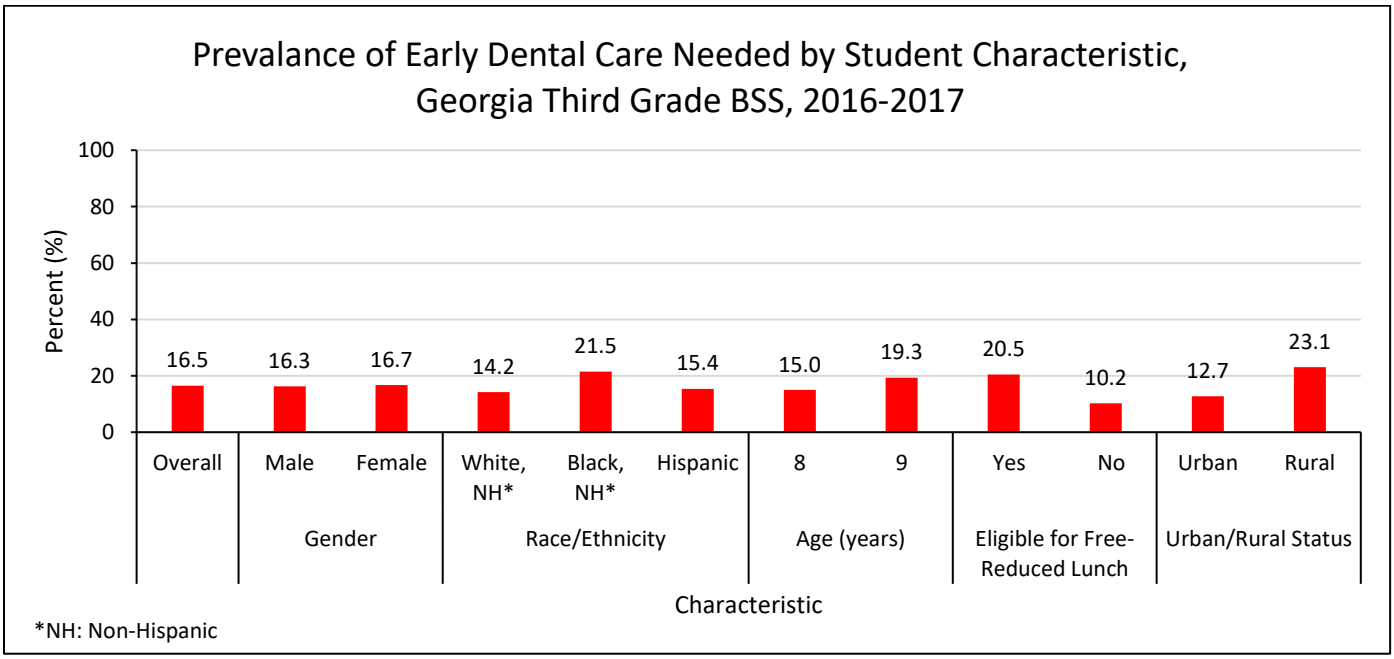
Early Dental Care Needed

Early dental care needed refers to third grade children who should see a dentist within the next three months, according to the licensed dental provider examining the child.

Characteristic	Early Dental Care Needed	
	%	95% CI
Overall	**16.5**	**13.3, 19.7**
Gender		
Male	16.3	12.8, 19.8
Female	16.7	13.2, 20.2
Race/Ethnicity		
White, Non-Hispanic	14.2	9.4, 19.0
Black, Non-Hispanic	21.5	18.2, 24.9
Hispanic	15.4	11.4, 19.3
Age		
8 years	15.0	12.1, 17.9
9 years	19.3	14.2, 24.5
Eligible for FRLP		
Yes	20.5	17.3, 23.6
No	10.2	6.3, 14.0
Urban-Rural Status		
Urban	12.7	9.4, 16.0
Rural	23.1	18.6, 27.6

Key Findings

- In the 2016-2017 academic year, about 17% of third grade students were in need of early dental care
- Though not statistically significant, black, non-Hispanic students had a higher prevalence (22%) of needing early dental care than white, Non-Hispanic students (14%)
- Approximately twice as many students eligible for FRLP (21%) had need for early dental care than those who were not eligible for FRLP (10%)
- A greater proportion of rural students needed early dental care (23%) than urban students (13%)



How Can Georgia Decrease the Proportion of Children who Need Early Dental Care?

By promoting the best practice of seeing a dentist by 12 months of age or first tooth eruption, whichever comes first: Regular dental visits would allow dentists to treat children's caries and to apply fluoride varnish, decreasing the prevalence of untreated caries, overall caries experienced, and need for emergency and early dental treatment.[9]

By educating pregnant mothers regarding oral health literacy and the impact of their own oral healthcare on their children: Children of mothers with poor oral health and poor oral health self-image are more likely to have worse oral health outcomes. Educating mothers on their own oral health and the impact on the developing child can improve the oral health of the developing child as well as form better oral health hygiene.

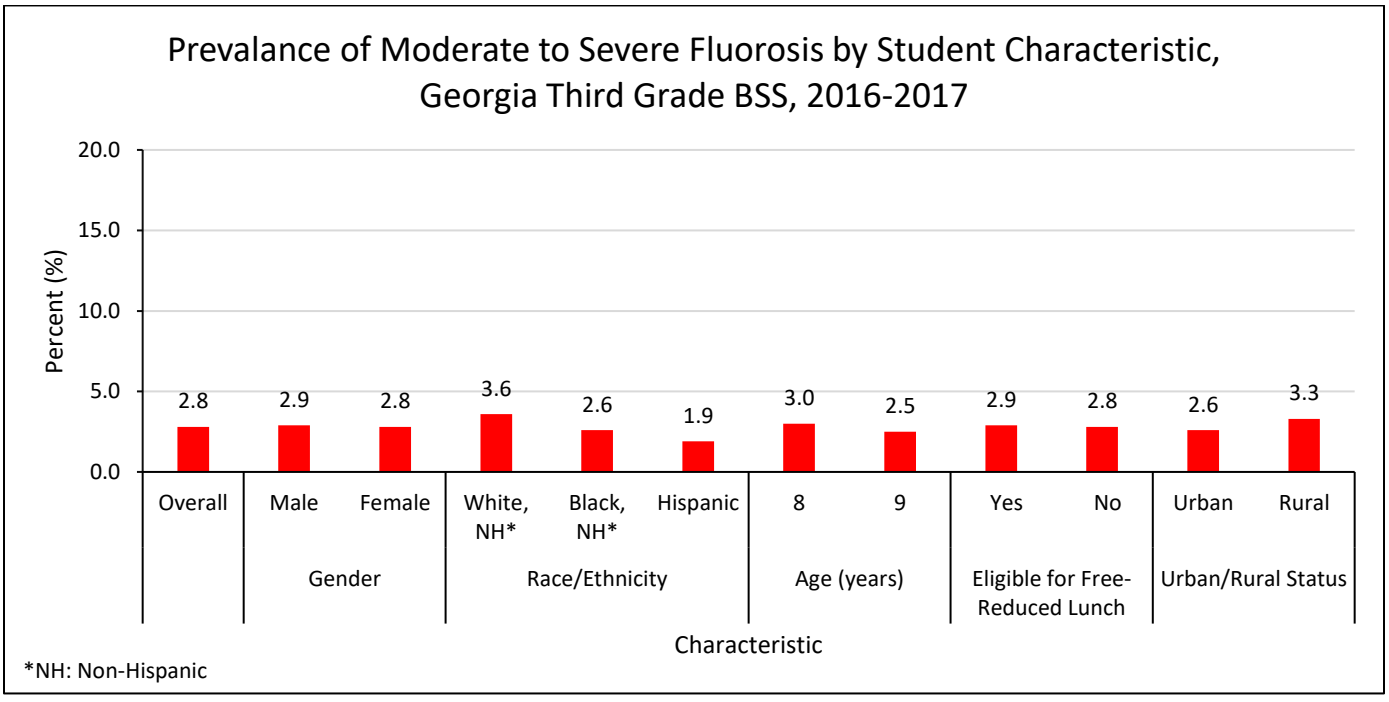
Moderate or Severe Dental Fluorosis Present

Moderate or severe dental fluorosis present refers to third grade children who have moderately or severely mottled enamel, caused by ingestion of excessive fluoride during enamel formation.[8] Of note, dental fluorosis can be difficult to accurately diagnose.

	Moderate or Severe Fluorosis Present	
Characteristic	**%**	**95% CI**
Overall	**2.8**	**1.5, 4.2**
Gender		
Male	2.9	1.6, 4.3
Female	2.8	1.2, 4.3
Race/Ethnicity		
White, Non-Hispanic	3.6	1.6, 5.7
Black, Non-Hispanic	2.6	0.9, 4.2
Hispanic	1.9	0.1, 3.7
Age		
8 years	3.0	1.4, 4.5
9 years	2.5	1.2, 3.8
Eligible for FRLP		
Yes	2.9	1.5, 4.3
No	2.8	0.7, 5.0
Urban-Rural Status		
Urban	2.6	0.8, 4.4
Rural	3.3	1.5, 5.0

Key Findings

- In the 2016-2017 academic year, 3% of third grade students had moderate to severe fluorosis present
- White, Non-Hispanic students had the highest prevalence of fluorosis (4%) and Hispanic students had the lowest (2%), though these differences were not statistically significant
- Prevalence of fluorosis was similar among students of different ages, eligibility for FRLP, and urban-rural status



How Can Georgia Decrease the Proportion of Children with Moderate or Severe Fluorosis?

By oral health education: Educating caregivers of young children on the proper amount of toothpaste – rice grain size until the child can sufficiently spit on their own and a pea size amount thereafter – can help ensure children receive the recommended amount of fluoride.

By ensuring ongoing water fluoridation measures: Collaborating with water plant operators of community water systems to ensure routine water fluoridation level testing is performed and reported, may help ensure fluoride levels stay within the optimal recommended range.

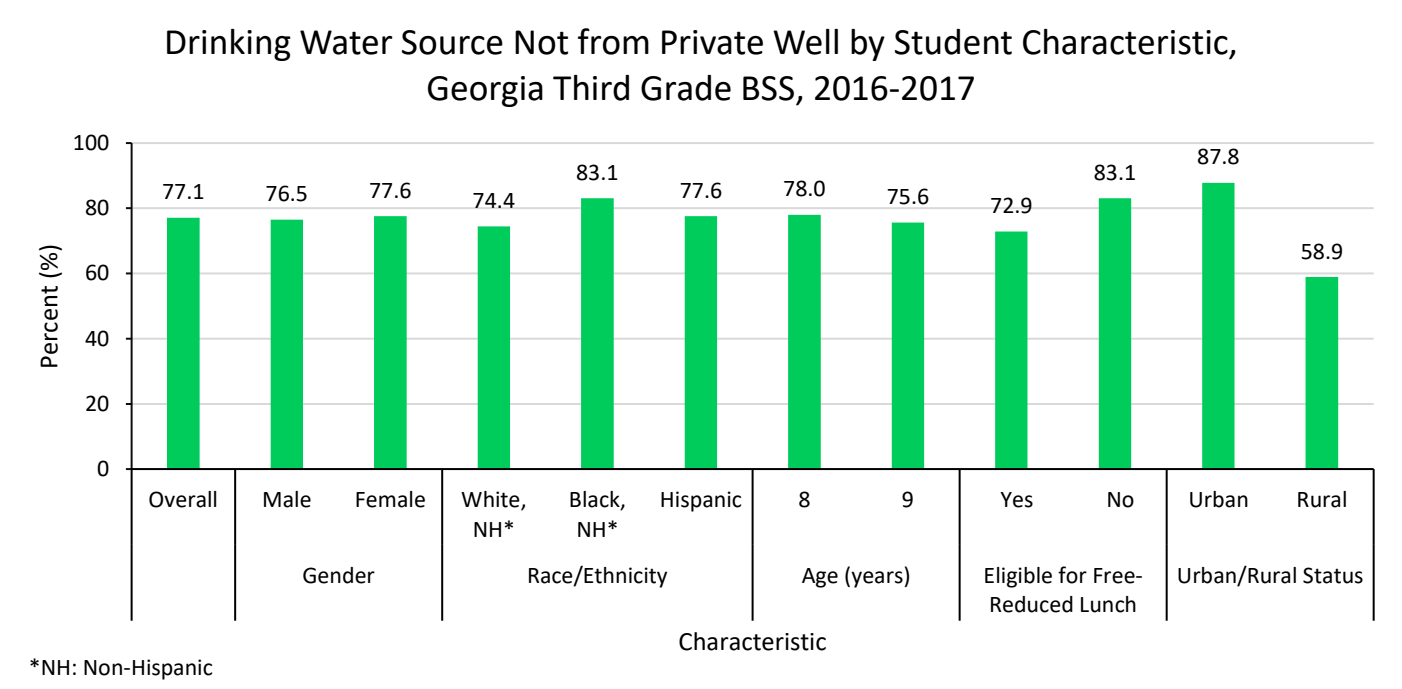
Drinking Water Source

Drinking water source refers to third grade children whose home drinking water source is *not* a private well. This serves as an indicator of the proportion of students who were served by community water systems with optimally fluoridated water.

Characteristic	Drinking Water *Not* From Private Well	
	%	95% CI
Overall	**77.1**	**72.1, 82.1**
Gender		
Male	76.5	70.9, 82.1
Female	77.6	72.6, 82.6
Race/Ethnicity		
White, Non-Hispanic	74.4	65.0, 83.9
Black, Non-Hispanic	83.1	78.2, 88.0
Hispanic	77.6	72.2, 83.0
Age		
8 years	78.0	73.3, 82.7
9 years	75.6	68.7, 82.5
Eligible for FRLP		
Yes	72.9	68.2, 77.5
No	83.1	76.0, 90.3
Urban-Rural Status		
Urban	87.8	84.7, 90.8
Rural	58.9	51.7, 66.0

Key Findings

- In the 2016-2017 academic year, 77% of third grade students' home drinking water source was not a private well
- Though not statistically significant, black, non-Hispanic students had a higher prevalence of water not sourced from a private well (83%) than white, non-Hispanic students (74%)
- Though not statistically significant, students eligible for FRLP had a lower prevalence of water source not being from a private well (73%) than students not eligible for FRLP (83%)
- Rural students had a much lower prevalence of home drinking water not being from a private well (59%) than urban students (88%)



How Can Georgia Increase the Proportion of Children Drinking Fluoridated Community Water?

By collaboration with partners: Educating community/public water system operators and working with partners like the Georgia Rural Water Association could help create a better informed infrastructure, work force, and policy makers. Public community water systems could then continue to adjust fluoride concentrations to optimal levels recommended by CDC guidelines.

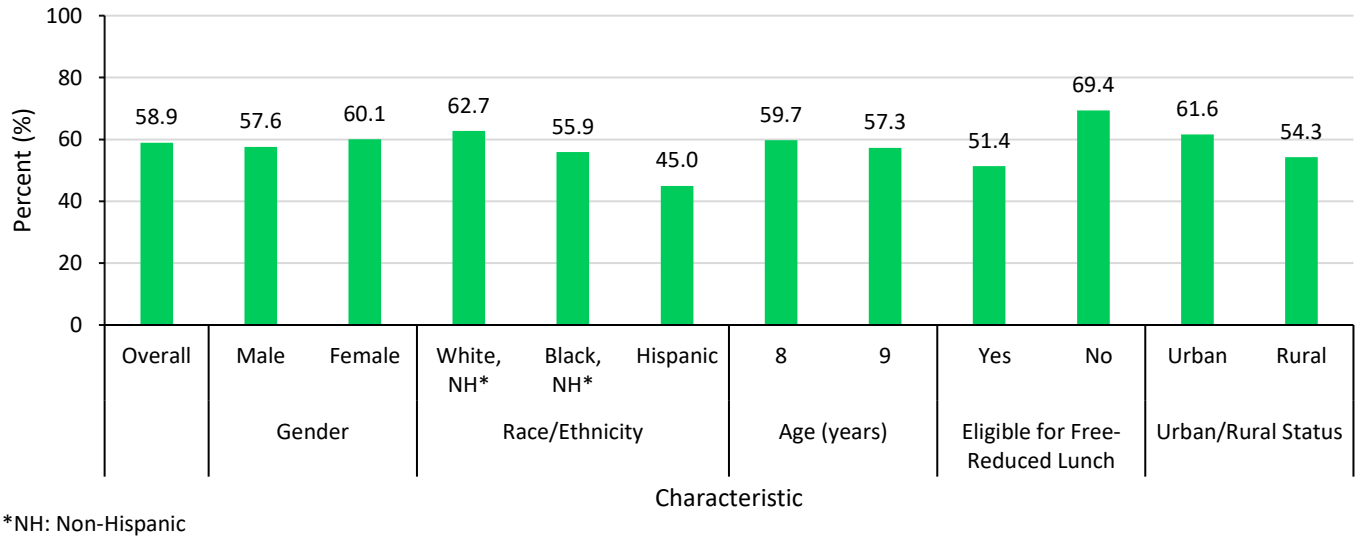
Cost of Produce

Cost of produce refers to the cost of fruits and vegetables as rated by parents of third-grade children. Parents rated the cost of fruits and vegetables at the store where they did most of their food shopping, with the following options: "Poor," "Fair," "Good," or "Excellent." Combining the "Good" and "Excellent responses serves as an indicator of access to affordable fruits and vegetables.

	Good/Excellent Produce Cost	
Characteristic	**%**	**95% CI**
Overall	**58.9**	**54.6, 63.2**
Gender		
Male	57.6	53.4, 61.8
Female	60.1	54.5, 65.8
Race/Ethnicity		
White, Non-Hispanic	62.7	58.5, 66.9
Black, Non-Hispanic	55.9	51.3, 60.5
Hispanic	45.0	38.7, 51.4
Age		
8 years	59.7	54.8, 64.5
9 years	57.3	51.9, 62.7
Eligible for FRLP		
Yes	51.4	47.2, 55.7
No	69.4	65.7, 73.2
Urban-Rural Status		
Urban	61.6	55.3, 67.8
Rural	54.3	50.8, 57.8

Key Findings

- In the 2016-2017 academic year, 59% of parents of third grade students rated the cost of produce at their most frequent food store as good or excellent.
- The proportion of Hispanic parents who rated produce cost as good/excellent (45%) was significantly lower than white, Non-Hispanic parents (63%)
- Parents of students eligible for the FRLP (51%) were less likely to rate produce cost as good/excellent than parents of students not eligible for FRLP (69%)
- Though not statistically significant, a lower percentage of parents in rural areas rated their produce cost as good/excellent (54%) than parents of students in urban areas (62%)



How Can Georgia Increase the Proportion of Families with Access to Well-Priced Produce?

By improving access to retail stores that sell affordable fruits and vegetables: Improving access to retail grocery stores could be done by providing financial incentives to attract new stores to underserved areas, improving public transportation to these stores, and upgrading existing stores to enable them to stock more affordable and higher quality produce.[3]

By supporting and promoting community and home gardens: Community and home gardens can benefit community members by increasing access to high quality and low cost fruits and vegetables.[3]

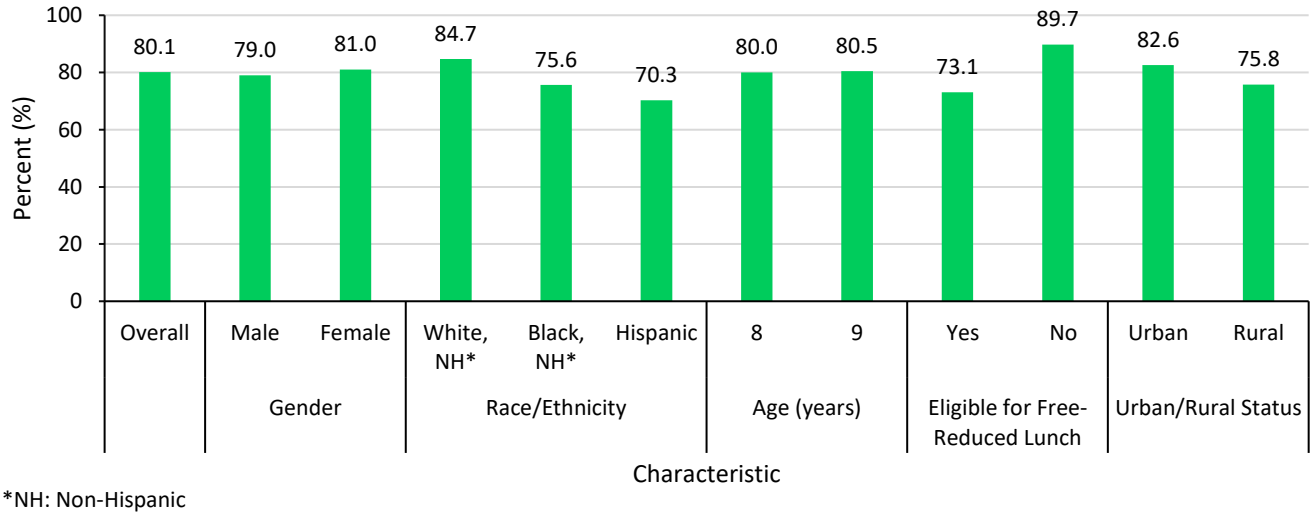
Quality of Produce

Quality of produce refers to the quality of fruits and vegetables as rated by parents of third grade children. Parents rated the quality of fruits and vegetables at the store where they did most of their food shopping; options included "Poor," "Fair," "Good," or "Excellent." Combining the "Good" and "Excellent" responses serves as an indicator of access to high-quality fruits and vegetables among third grade students.

	Good/Excellent Produce Quality	
Characteristic	**%**	**95% CI**
Overall	**80.1**	**76.3, 83.8**
Gender		
Male	79.0	75.2, 82.9
Female	81.0	76.2, 85.9
Race/Ethnicity		
White, Non-Hispanic	84.7	80.0, 89.4
Black, Non-Hispanic	75.6	71.5, 79.7
Hispanic	70.3	66.3, 74.3
Age		
8 years	80.0	76.2, 83.8
9 years	80.5	74.3, 86.6
Eligible for FRLP		
Yes	73.1	70.3, 75.9
No	89.7	86.0, 93.4
Urban-Rural Status		
Urban	82.6	77.3, 88.0
Rural	75.8	73.1, 78.4

Key Findings

- In the 2016-2017 academic year, 80% of parents of third grade students rated the quality of produce at their most frequent food store as good or excellent.
- Hispanic parents were less likely to rate produce quality as good/excellent (70%) than white, non-Hispanic parents (85%)
- Among students eligible for FRLP (73%), parents were less likely to rate produce quality as good/excellent than parents of students not eligible for FRLP (90%)
- Though not statistically significant, a lower percentage of parents in rural areas rated their produce quality highly (76%) than parents in urban areas (83%)



How Can Georgia Increase the Proportion of Families with Access to High Quality Produce?

By improving access to retails stores that sell high-quality fruits and vegetables: Improving access to retail grocery stores can be done by providing financial incentives to attract new food stores to underserved areas, improving public transportation to these stores, upgrading existing stores to enable them to carry more affordable and high quality produce.[3]

By supporting and promoting community and home gardens: Community and home gardens can benefit the community members by providing high-quality fresh fruits and vegetables at a low cost.[3]

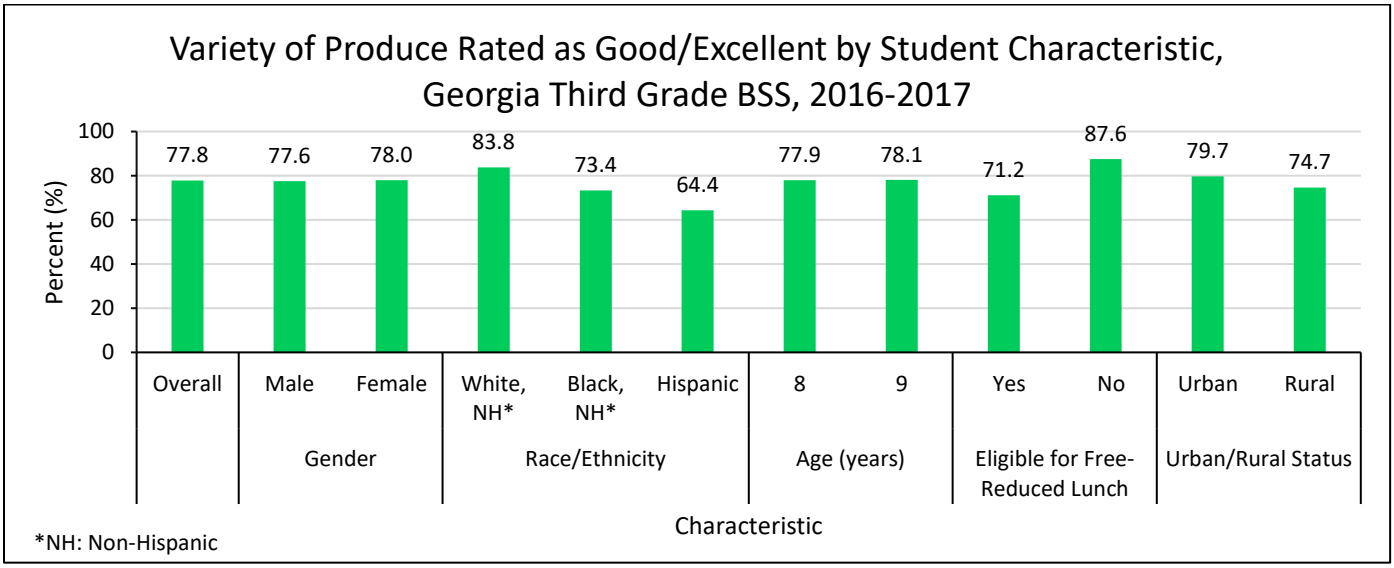
Variety of Produce

Variety of produce refers to the variety of fruits and vegetables as rated by parents of third grade children. Parents rated the variety of fruits and vegetables at the store where they did most of their food shopping; options included "Poor," "Fair," "Good," or "Excellent." Combining the "Good" and "Excellent" responses serves as an indicator of access to a variety of fruits and vegetables among third grade students.

	Good/Excellent Produce Variety	
Characteristic	**%**	**95% CI**
Overall	**77.8**	**73.4, 82.3**
Gender		
Male	77.6	72.9, 82.3
Female	78.0	73.1, 83.0
Race/Ethnicity		
White, Non-Hispanic	83.8	79.5, 88.2
Black, Non-Hispanic	73.4	67.8, 79.1
Hispanic	64.4	59.8, 69.0
Age		
8 years	77.9	72.9, 82.8
9 years	78.1	73.2, 82.9
Eligible for FRLP		
Yes	71.2	67.4, 75.0
No	87.6	84.1, 91.1
Urban-Rural Status		
Urban	79.7	73.1, 86.3
Rural	74.7	71.8, 77.7

Key Findings

- In the 2016-2017 academic year, 78% of parents of third grade students rated the variety of produce at their most frequent food store as good or excellent
- Black, Non-Hispanic (73%) and Hispanic (64%) parents were less likely to rate produce variety highly than white, non-Hispanic (84%) parents
- Parents of students eligible for FRLP (71%) were less likely to rate produce variety as good/excellent than parents of students not eligible for FRLP (88%)
- Though not statistically significant, a lower percentage of parents in rural areas (75%) reported a good/excellent produce variety than parents in urban areas (80%)



How Can Georgia Increase the Proportion of Families with Access to Increased Variety of Produce?

By increasing availability of retail stores that sell a wide variety of fruits and vegetables: Increasing availability of retail grocery stores can be done by: 1) providing incentives for farmers' markets or supermarkets to establish their businesses in underserved areas; 2) improving facilities at existing stores to enable them to carry a wide variety of produce; and, 3) increasing the supply and shelf space dedicated to a wide variety of fruits and vegetables at these stores.[3]

By establishing policies to incorporate fruit and vegetable activities into schools: Schools could incorporate activities in their curricula such as gardening, visit farms, fruit and vegetable preparation lessons and tasting demonstrations to students so they gain exposure to a variety of familiar and unfamiliar produce.[3]

By supporting and promoting community and home gardens: Community and home gardens can benefit families by providing access to a wide variety of locally grown and low cost fruits and vegetables.[3]

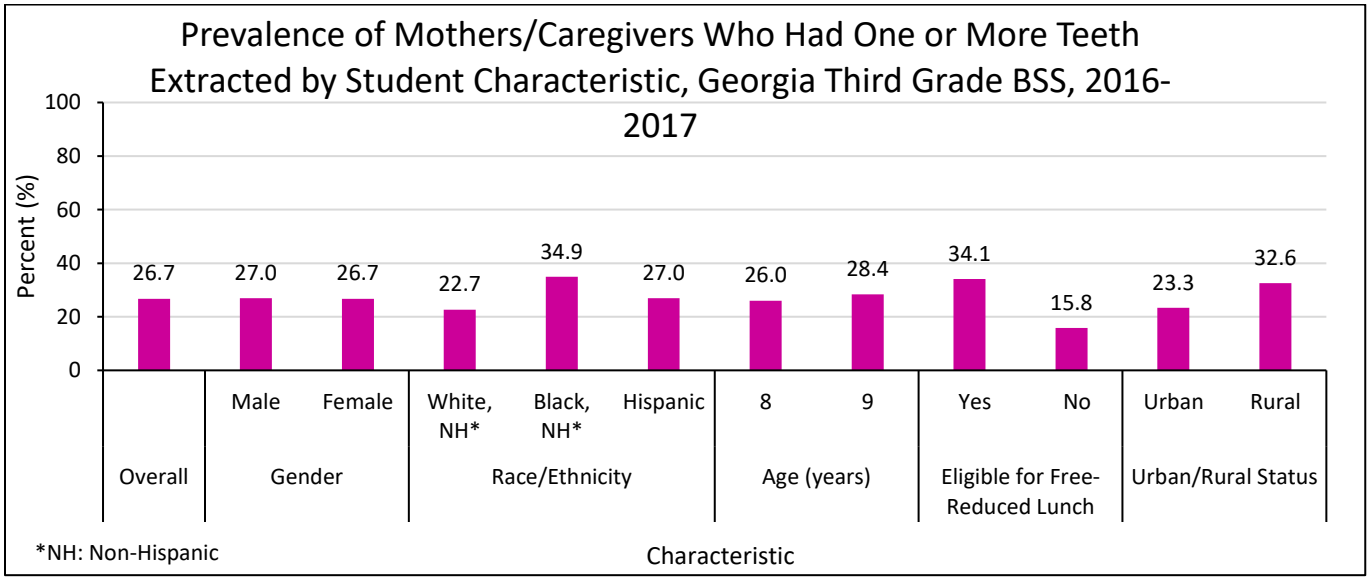
Maternal/Caregiver Tooth Extraction

Maternal/Caregiver tooth extraction refers to mothers or caregivers of third grade children who have had one or more teeth pulled because of decay.

Characteristic	Mother/Caregiver Had One or More Teeth Extracted	
	%	95% CI
Overall	**26.7**	**23.7, 29.7**
Gender		
Male	27.0	24.1, 29.8
Female	26.7	22.7, 30.7
Race/Ethnicity		
White, Non-Hispanic	22.7	17.8, 27.6
Black, Non-Hispanic	34.9	31.3, 38.6
Hispanic	27.0	23.7, 30.3
Age		
8 years	26.0	22.7, 29.3
9 years	28.4	23.1, 33.8
Eligible for FRLP		
Yes	34.1	31.9, 36.3
No	15.8	13.1, 18.6
Urban-Rural Status		
Urban	23.3	19.2, 27.4
Rural	32.6	30.3, 34.8

Key Findings

- In the 2016-2017 academic year, 27% of third grade students had mothers/caregivers with one or more teeth extracted because of dental caries
- Black, Non-Hispanic students had the highest prevalence of maternal/caregiver tooth extraction (35%)
- Third grade students eligible for FRLP (34%) had more than twice the prevalence of maternal/caregiver tooth extraction than students not eligible for FRLP (16%)
- Rural students (33%) had a higher prevalence of maternal/caregiver tooth extraction than urban students (23%)



How Can Georgia Decrease the Proportion of Adults (parents/caregivers) who have Teeth Extracted due to dental caries?

By educating parents/caregivers on relevant topics: Educating parents/caregivers on topics such as oral health hygiene, the transmission of bacteria, and how decay can be prevented would help to decrease the prevalence of cavities in adults.

By increasing the application of fluoride varnish in dental and medical practices: Treating adults with fluoride varnish could decrease the prevalence of dental caries and dental sensitivity. Additionally, use of silver diamine fluoride and other interim prevention measures could decrease the rate of decay progression and lead to more teeth not being extracted.

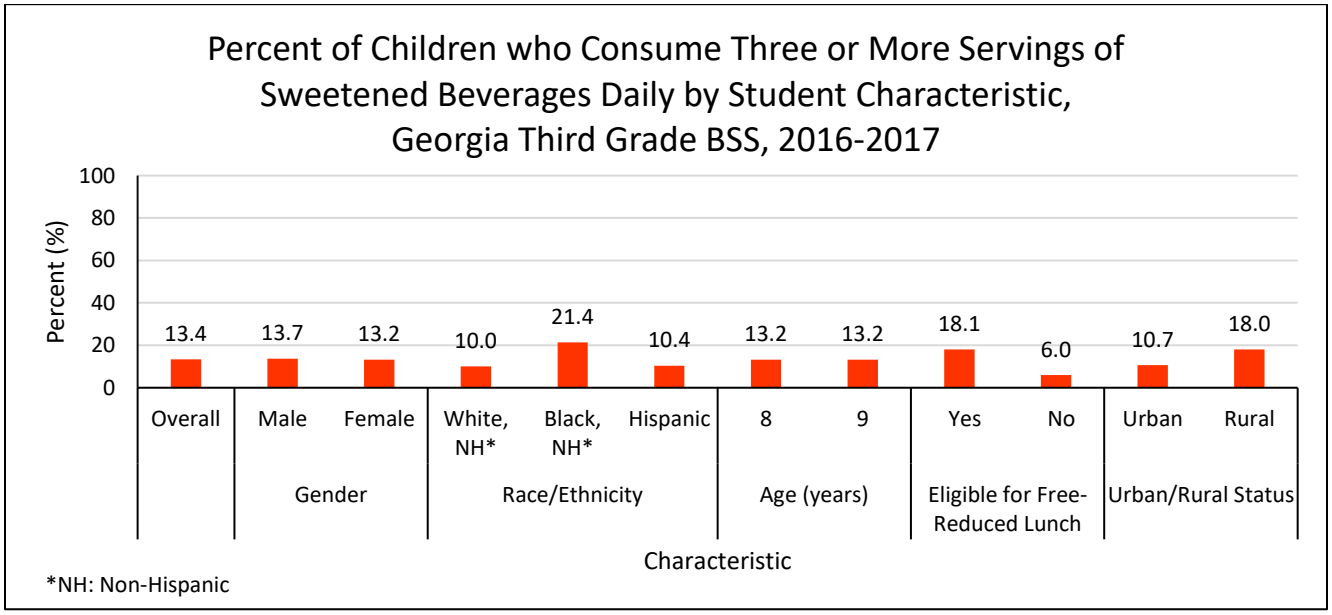
Daily Servings of Sugar-Sweetened Beverages

Daily servings of sugar-sweetened beverages refers to the daily average number of servings of pop, soda, and other sweetened beverages (not counting diet beverages) consumed by Georgia third grade children. An average of three or more servings is used here as an oral health risk factor.

	3 or More Daily Servings of Sweetened Beverages	
Demographic	**%**	**95% CI**
Overall	**13.4**	**10.5, 16.2**
Gender		
Male	13.7	10.4, 17.0
Female	13.2	10.2, 16.1
Race/Ethnicity		
White, Non-Hispanic	10.0	6.6, 13.3
Black, Non-Hispanic	21.4	17.8, 25.1
Hispanic	10.4	6.4, 14.4
Age		
8 years	13.2	10.1, 16.4
9 years	13.2	9.5, 16.8
Eligible for FRLP		
Yes	18.1	15.6, 20.6
No	6.0	3.4, 8.6
Urban-Rural Status		
Urban	10.7	7.0, 14.4
Rural	18.0	15.6, 20.4

Key Findings

- In the 2016-2017 academic year, 13% of third grade students had a daily average of consuming three or more servings of pop, soda or other sweetened beverages
- Black, Non-Hispanic students had a higher prevalence of consuming three or more sweetened beverages daily (21%) than Hispanic (10%) and white, non-Hispanic (10%) students
- Approximately three times as many third grade students eligible for FRLP (18%) consumed three or more daily sweetened beverages daily than students not eligible for FRLP (6%)
- Consumption of three or more sweetened beverages daily was more prevalent in rural (18%) students than urban (11%)



How Can Georgia Decrease the Proportion of Children Drinking Sweetened Beverages?

By educating parents on the negative health impacts of sweetened beverages: In a culturally sensitive way, educators could discuss daily consumption of sweetened and other fruit beverages and their effect on oral health and overall health.

By promoting national nutritional guidelines, such as those provided by USDA: Educators can use these national guidelines as examples for young children, should result in better nutritional habits around frequency and quantity of fermentable carbohydrates consumed and, therefore, reduce the risk of caries development.

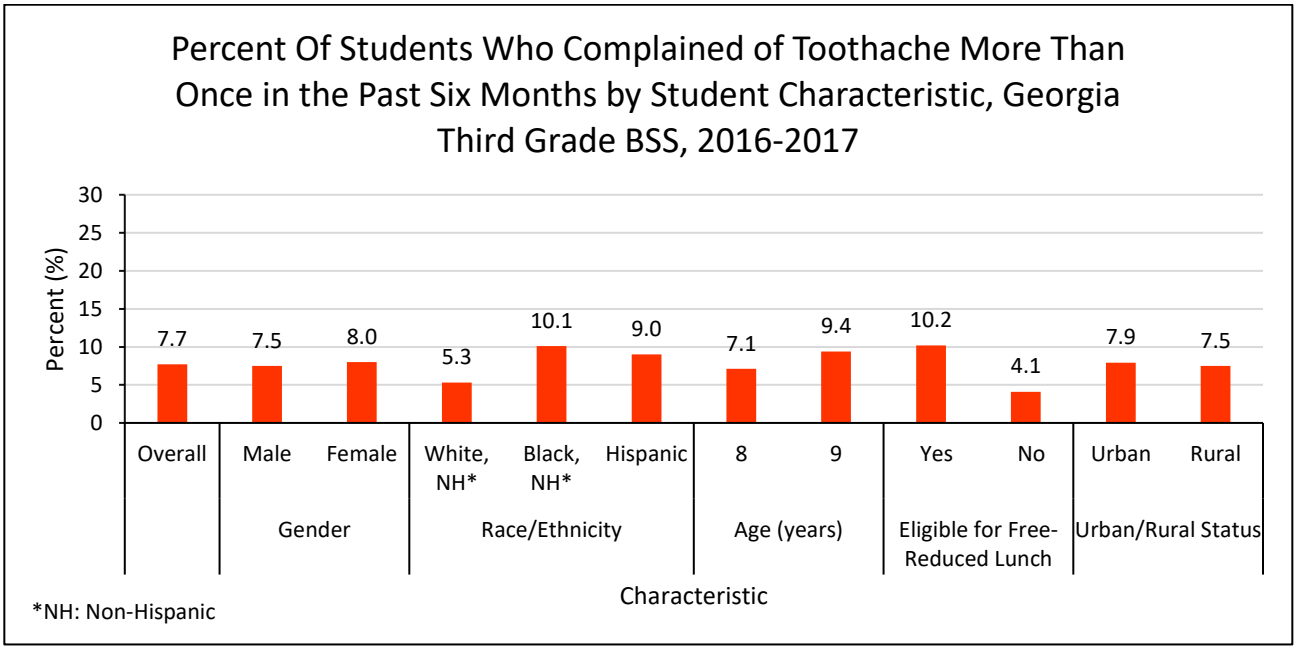
Toothache in Past 6 Months

Toothache in past 6 months refers to the proportion of children whose parents reported the student had complained of a toothache more than once in the past 6 months.

Characteristic	Toothache in Past 6 Months	
	%	95% CI
Overall	**7.8**	**6.1, 9.5**
Gender		
Male	7.5	5.1, 10.0
Female	8.0	6.2, 9.8
Race/Ethnicity		
White, Non-Hispanic	5.3	4.0, 6.7
Black, Non-Hispanic	10.1	7.2, 13.0
Hispanic	9.0	4.5, 13.5
Age		
8 years	7.1	5.4, 8.8
9 years	9.4	5.9, 12.9
Eligible for FRLP		
Yes	10.2	8.0, 12.4
No	4.1	2.5, 5.7
Urban-Rural Status		
Urban	7.9	5.4, 10.4
Rural	7.5	5.7, 9.4

Key Findings

- In the 2016-2017 academic year, 8% of third grade students had complained of a toothache more than once in the past six months
- Black, Non-Hispanic students (10%) had about twice the prevalence of more than one toothache complaint in the past six months than white, non-Hispanic students (5%)
- The prevalence of students who complained of more than one toothache was higher among students eligible for FRLP (10%) than students not eligible for FRLP (4%)
- There was no difference in toothache complaints in the past 6 months by urban-rural status



How Can Georgia Decrease the Proportion of Children who Experience Toothaches?

By promoting the best practice of regular dental visits starting from an early age: Regular dental visits would allow dentists to treat children's caries and to apply fluoride varnish, decreasing the prevalence of most dental problems including untreated caries, overall caries experienced, and need for emergency and early care.

By promoting healthy eating: Promotion of healthy eating can be done through collaboration with schools to educate and inform parents and caregivers about the adverse effects of sugary foods and beverages on oral and overall health and encouraging school leadership to provide healthy choices in school vending machines.[4]

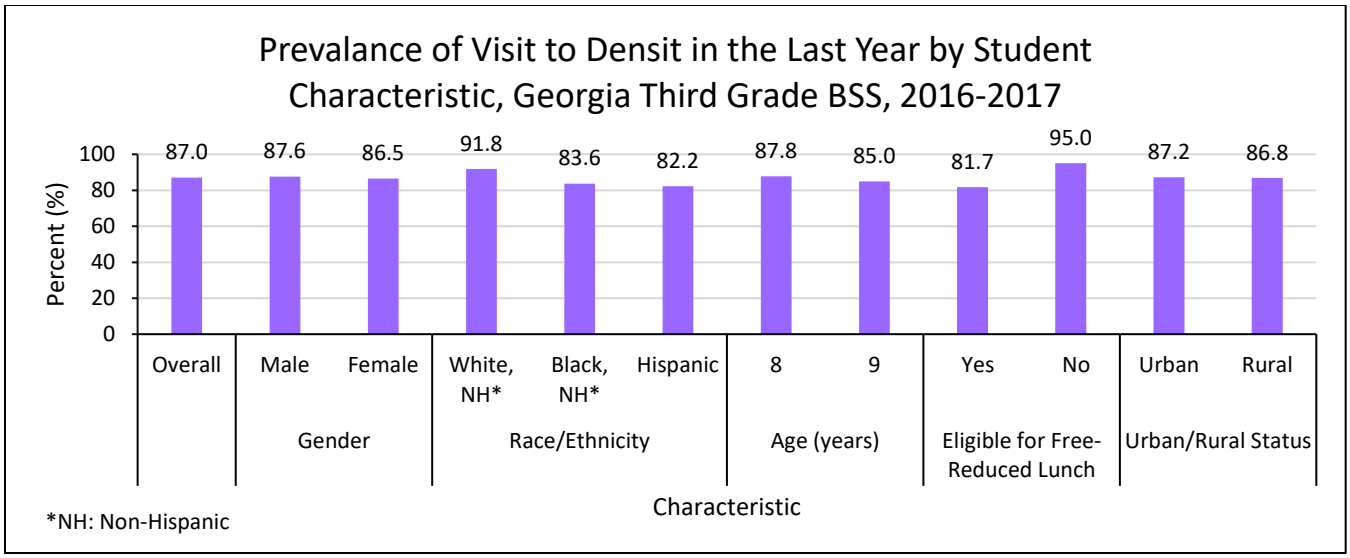
Child's Last Dental Visit

Child's last dental visit refers to about how long it has been since third grade children visited a dentist.

	Child's Last Dental Visit					
	Visited in the Last Year		Visited More Than a Year Ago		Never been to the dentist	
Characteristic	**%**	**95% CI**	**%**	**95% CI**	**%**	**95% CI**
Overall	**87.0**	**84.5, 89.6**	**8.6**	**6.8, 10.4**	**2.8**	**1.7, 3.8**
Gender						
Male	87.6	84.8, 90.5	8.6	6.3, 10.9	2.5	1.4, 3.6
Female	86.5	83.7, 89.3	8.6	6.5, 10.8	2.9	1.6, 4.3
Race/Ethnicity						
White Non-Hispanic	91.8	89.3, 94.3	6.7	4.7, 8.6	1.3	0.6, 1.9
Black Non-Hispanic	83.6	80.7, 86.4	13.3	10.3, 16.3	1.8	0.5, 3.1
Hispanic	82.2	78.1, 86.3	6.6	4.4, 8.9	6.9	4.4, 9.4
Age						
8 years	87.8	85.2, 90.5	8.3	6.2, 10.4	2.4	1.3, 3.6
9 years	85.0	81.3, 88.7	9.7	6.9, 12.5	3.4	1.4, 5.4
Eligible for FRLP						
Yes	81.7	79.4, 84.0	11.6	9.7, 13.4	4.1	2.7, 5.6
No	95.0	93.1, 96.9	4.0	2.2, 5.9	0.8	0.3, 1.3
Urban-Rural Status						
Urban	87.2	83.4, 91.0	7.7	5.1, 10.3	3.3	1.7, 4.8
Rural	86.8	84.9, 88.6	10.1	8.5, 11.7	1.9	1.1, 2.7

Key Findings

- In the 2016-2017 academic year, 87% of third grade students had visited a dentist in the past year
- By race-ethnicity White, Non-Hispanic students had the highest prevalence of a dental visit in the past year (92%), while Hispanic students (6%) were the most likely to have never been to the dentist.
- The prevalence of a dental visit in the last year was lower among students eligible for FRLP (82%) than among students not eligible for FRLP (95%)



How Can Georgia Increase the Proportion of Children who Visit a Dentist Every Year?

By encouraging parents/caregivers to take their child for regular dental visits: The American Academy of Pediatric Dentistry recommends dental check-ups every six months in order to prevent cavities and other dental problems in young children. In children who are at high risk of dental caries, dental check-ups every three or four months may be necessary.

By offering health literacy education to parents/caregivers: Low oral health literacy is associated with low use of dental care services.

By developing referral pathways for dental services. By creating a robust and widely disseminated referral resource list and ensuring school nurses or counselors are provided these resources to disseminate to children and their parents or caretakers.

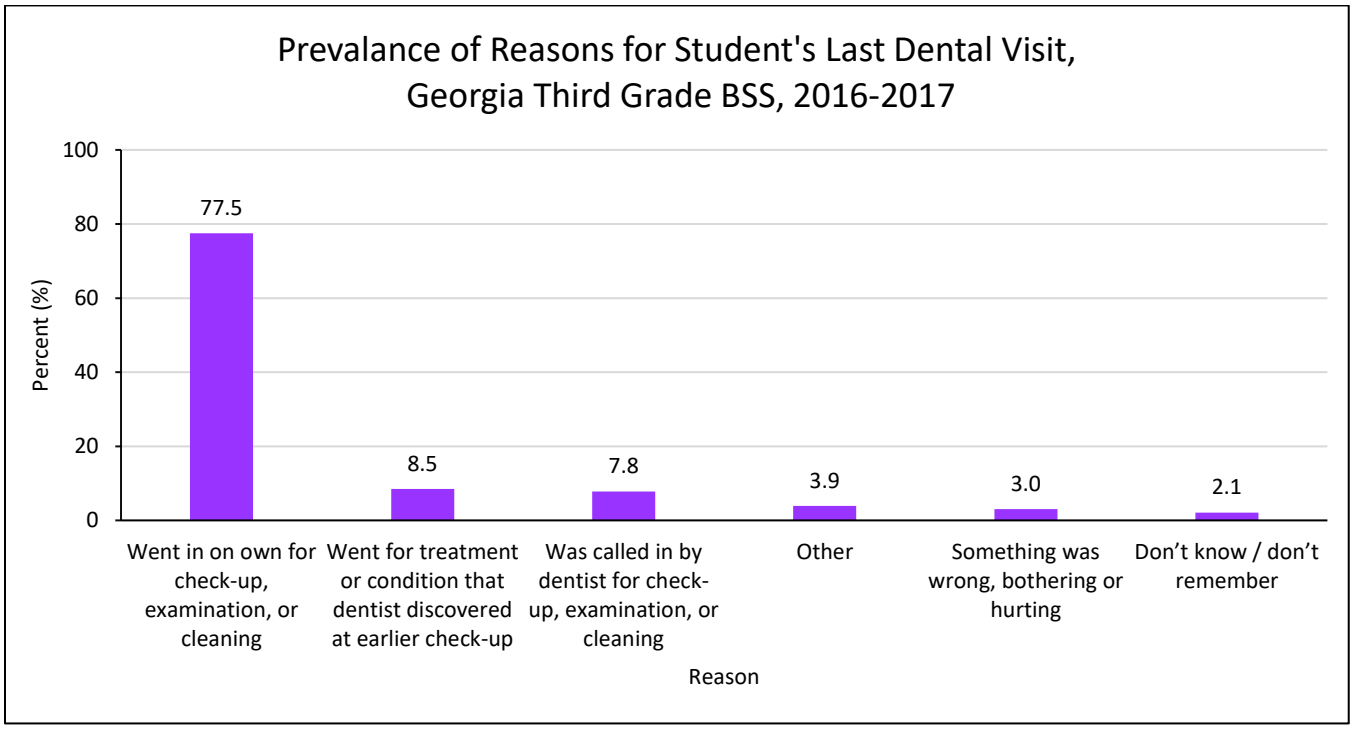
Reason For Child's Last Dental Visit

Reasons for child's last dental visit refers to the reasons parents or caregivers gave regarding why their child last visited a dentist**.**

	Proportion of Children	
Reason	**%**	**95% CI**
Went in on own for check-up, examination, or cleaning	77.5	73.8, 81.1
Went for treatment or condition that dentist discovered at earlier check-up	8.5	7.0, 9.9
Was called in by dentist for check-up, examination, or cleaning	7.8	6.0, 9.5
Other	3.9	2.7, 5.0
Something was wrong, bothering or hurting	3.0	2.2, 3.8
Don't know / don't remember	2.1	1.5, 2.8

Key Findings

- The majority of parents reported the reason for their child's last visit to a dentist was to go in on their own for a check-up, examination, or cleaning (78%)
- Two other reasons parents cited for their child's last dental visit were going in for treatment found at an earlier check-up (9%) and called in by dentist for regular visit (8%)



How Can Georgia Increase the Proportion of Children who Visit a Dentist Every Year?

By encouraging parents/caregivers to take their child for regular dental visits: The American Academy of Pediatric Dentistry recommends dental check-ups every six months in order to prevent cavities and other dental problems in young children. In children who are at high risk of dental caries, dental check-ups every three or four months may be necessary.[9]

By offering health literacy education to parents/caregivers: Low health literacy is associated with low use of dental care services.

By developing referral pathways for dental services. Creating a robust and widely disseminated referral resource list and ensuring school nurses or counselors are provided information on dental service resources in their community.

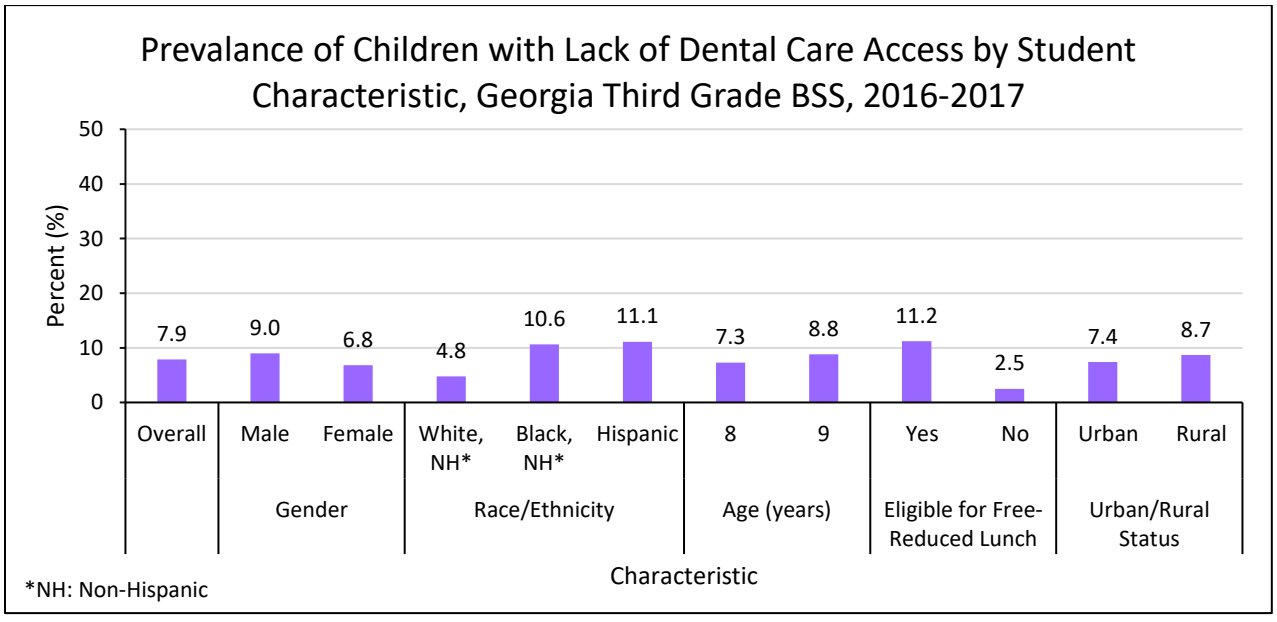
Lack of Dental Care Access

Lack of dental care access refers to parents or caregivers who reported, during the past 12 months, they needed dental care for their child but could not get it.

Characteristic	Lack of Dental Care Access %	95% CI
Overall	**7.9**	**6.1, 9.6**
Gender		
Male	9.0	6.5, 11.4
Female	6.8	4.6, 9.0
Race/Ethnicity		
White, Non-Hispanic	4.8	3.2, 6.4
Black, Non-Hispanic	10.6	7.9, 13.4
Hispanic	11.1	8.7, 13.6
Age		
8 years	7.3	5.5, 9.2
9 years	8.8	5.8, 11.8
Eligible for FRLP		
Yes	11.2	9.3, 13.1
No	2.5	1.2, 3.7
Urban-Rural Status		
Urban	7.4	4.9, 9.8
Rural	8.7	6.8, 10.7

Key Findings

- In the 2016-2017 academic year, 8% of third grade students needed dental care but could not get it in the past year
- Parents of Hispanic (11%) and black, non-Hispanic (11%) students reported the highest prevalence of lack of dental care access
- Parents of students eligible for FRLP had more than three times the prevalence of lack of dental care access (11%) than parents of students not eligible for FRLP (3%)
- Lack of dental care access did not differ by gender, age, or urban-rural status of students



How Can Georgia Increase the Access to Dental Care for Third Grade Children?

Focus on schools with higher percentage of students possibly without a dental home: Identify schools with a majority of students on free and reduced lunch programs and develop strategies to increase resources and provide onsite oral health services for children without a dental home.[5]

By quality improvement in Medicaid: Improve dental provider participation in Medicaid by increasing reimbursement rates to providers for oral health services[4] and reducing administrative burden for providers to enroll and participate.[6]

Integrating medical and dental care: Increasing oral health literacy for medical providers, including identifying common oral diseases, offering caries risk assessments, and fluoride varnish application in their practice, may encourage primary care professionals to integrate with dental care providers and develop referral networks and interdisciplinary patient centered care approaches.[5]

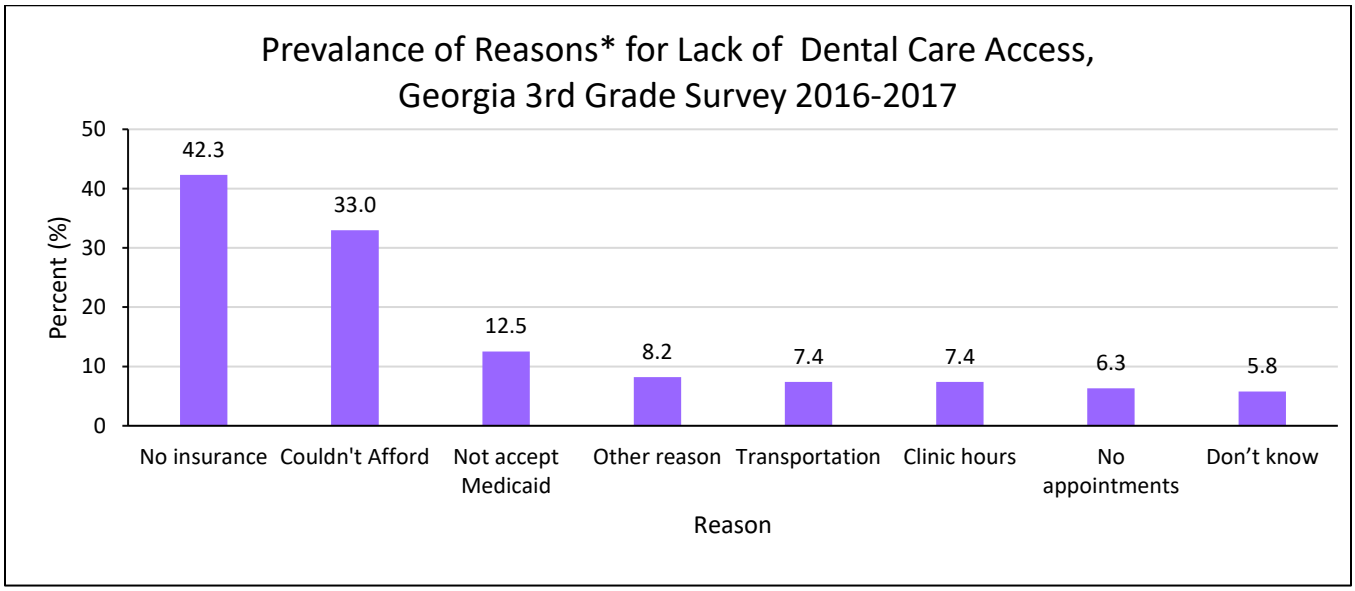
Reasons for Lack of Dental Care Access

Reasons for lack of dental care access refers to reasons parents or caregivers gave regarding why their child could not get the dental care they needed, of those children who needed dental care in the past 12 months but could not get it.

Reason	Proportion of Children	
	%	95% CI
No insurance	42.3	33.5, 51.2
Could not afford to go to dentist	33.0	25.0, 41.0
Dentist did not accept Medicaid / insurance	12.5	8.1, 16.9
Other reason	8.2	3.9, 12.5
No way to get there	7.4	3.1, 11.7
Hours not convenient	7.4	2.9, 11.8
Difficulty in getting appointment	6.3	3.2, 9.4
Don't know / don't remember	5.8	1.4, 10.3

Key Findings

- Among parents of third grade students who needed but could not get dental care in the past 12 months, the two most common reasons reported for lack of dental care access were lack of insurance (42%) and not able to afford going to the dentist (33%)
- Approximately 13% of parents of students who could not access care cited dentists not accepting either Medicaid or their own insurance as the reason
- Approximately 7% cited transportation difficulty or inconvenient hours as the reason for lack of care access in the past 12 months



**Note: The following reasons were reported by less than 5% of parents: Not serious enough, Didn't know where to go, Wait too long in office, No dentist available, Don't like/trust believe in dentist, Health of another family member, Speak a different language.*

How Can Georgia Increase the Access to Dental Care for Third Grade Children?

Focus on schools with higher percentage of students possibly without a dental home: Identify schools with a majority of students on free and reduced lunch programs and develop strategies to increase resources and/or provide onsite oral health services for children at those schools who do not have a dental home.[3]

Increase dental provider participation in Medicaid: Increasing dental provider participation in Medicaid may be achieved through higher reimbursement rates to providers for oral health services[4] and reducing the administrative burden for providers to enroll and participate.[6]

Integrating medical and dental care: Identifying common oral diseases in children and providing appropriate referrals to dental providers may encourage primary health care professionals to integrate with dental care providers.[7]

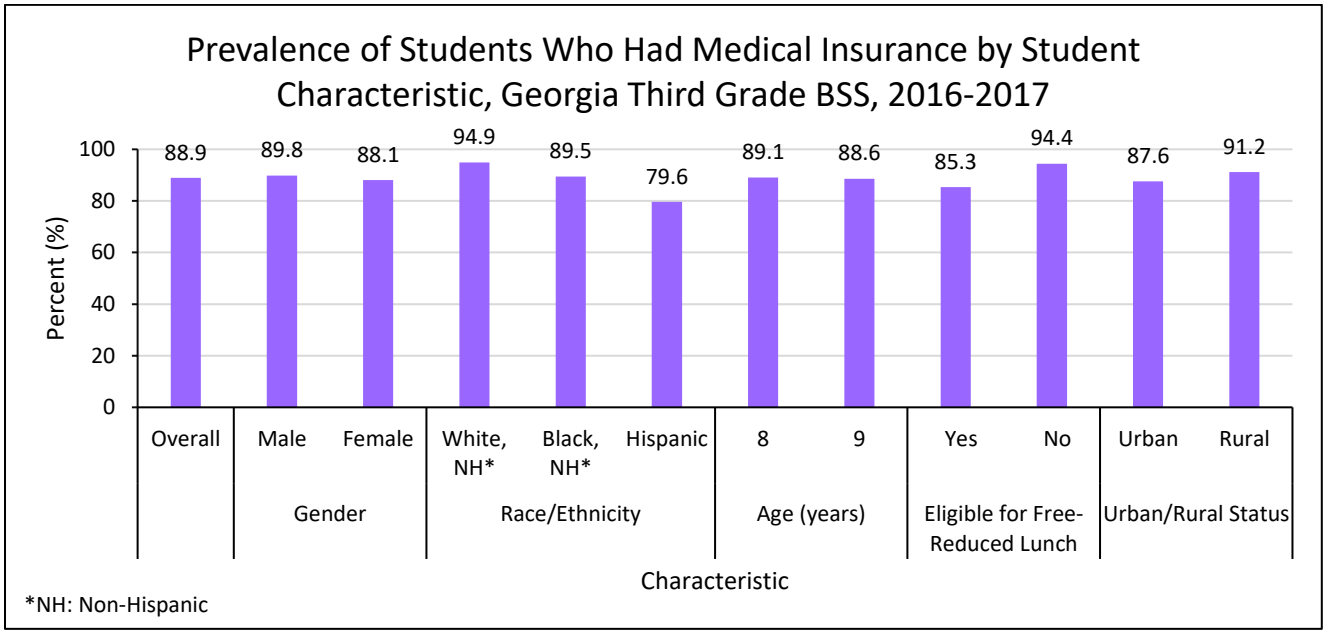
Insurance for Child's Medical or Surgical Care

Insurance for child's medical or surgical care refers to medical insurance that pays for some or all of a child's medical or surgical care, including insurance obtained through work, purchased directly, or obtained through government programs like Medicaid and Peachcare.

	Insurance for Child's Medical Care	
Characteristic	**%**	**95% CI**
Overall	**88.9**	**86.2, 91.6**
Gender		
Male	89.8	86.6, 92.9
Female	88.1	84.7, 91.4
Race/Ethnicity		
White, Non-Hispanic	94.9	93.2, 96.7
Black, Non-Hispanic	89.5	87.0, 92.0
Hispanic	79.6	74.6, 84.7
Age		
8 years	89.1	86.2, 92.0
9 years	88.6	84.9, 92.3
Eligible for FRLP		
Yes	85.3	82.1, 88.5
No	94.4	92.2, 96.6
Urban-Rural Status		
Urban	87.6	83.5, 91.7
Rural	91.2	89.4, 93.0

Key Findings

- In the 2016-2017 academic year, 89% of third grade students had medical insurance that payed for some or all of their medical or surgical care
- Medical insurance coverage was lowest among Hispanic students (80%) and highest among white, non-Hispanic students (95%)
- Students eligible for FRLP had a lower prevalence of medical insurance coverage (85%) than students who were not eligible for FRLP (94%)
- Though not statistically significant, a higher percentage of rural students had medical insurance (91%) than urban students (88%)



How Can Georgia Increase the Proportion of Children Covered by Medical Insurance?

Increase dental provider participation in Medicaid: Increasing dental provider participation in Medicaid may be achieved through higher reimbursement rates to providers for oral health services[4] and reducing the administrative burden for providers to enroll and participate.[6]

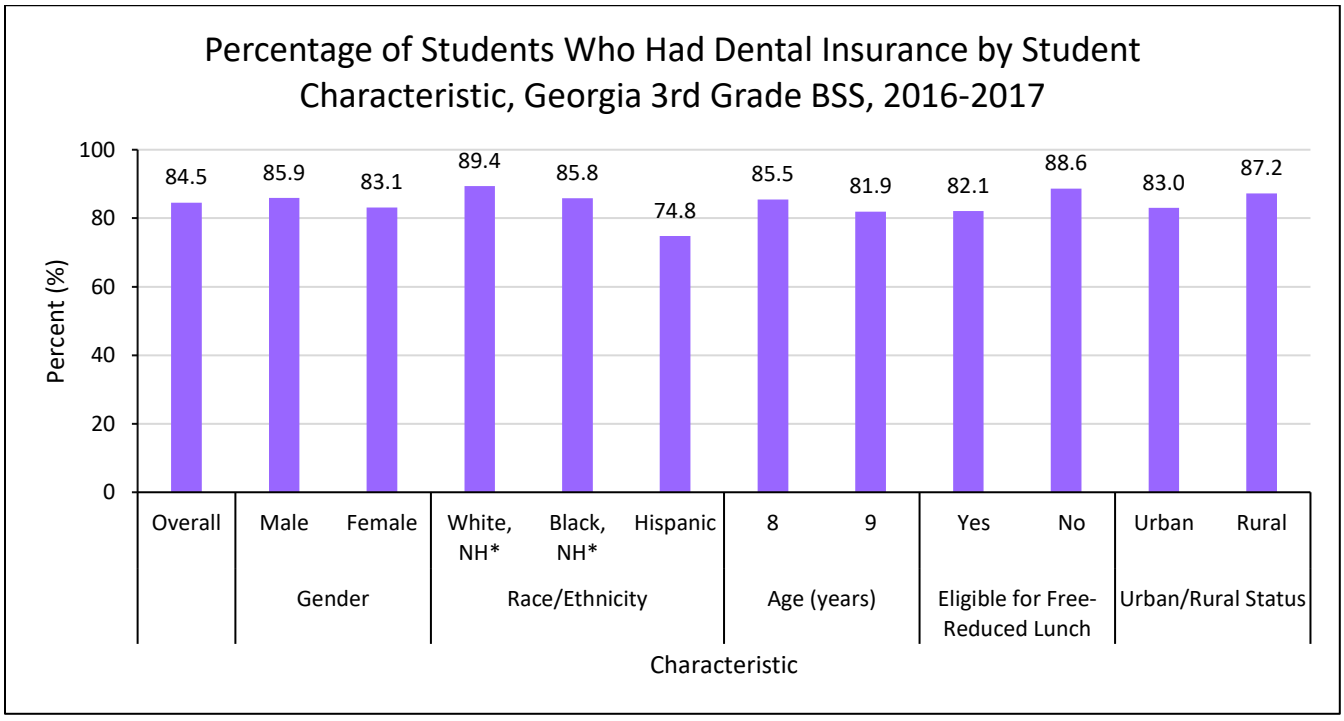
Insurance for Child's Dental Care

Insurance for child's dental care refers to dental insurance that pays for some or all of a child's dental care, including insurance obtained through work, purchased directly, or obtained through government programs like Medicaid and Peachcare.

Characteristic	Insurance for Child's Dental Care %	95% CI
Overall	**84.5**	**81.7, 87.4**
Gender		
Male	85.9	82.8, 89.0
Female	83.1	79.5, 86.7
Race/Ethnicity		
White, Non-Hispanic	89.4	86.1, 92.7
Black, Non-Hispanic	85.8	83.3, 88.3
Hispanic	74.8	67.4, 82.1
Age		
8 years	85.5	82.5, 88.4
9 years	81.9	76.7, 87.0
Eligible for FRLP		
Yes	82.1	78.6, 85.5
No	88.6	85.1, 92.1
Urban-Rural Status		
Urban	83.0	78.6, 87.3
Rural	87.2	85.5, 88.9

Key Findings

- In the 2016-2017 academic year, 85% of third grade students had dental insurance that payed for some or all of their dental care
- Like medical insurance, dental insurance coverage was lowest among Hispanic students (75%) and highest among white, non-Hispanic students (89%)
- Though not statistically significant, dental insurance coverage was lower among students eligible for FRLP (82%) than students not eligible for FRLP (89%)
- A higher percentage of students in rural areas had dental insurance coverage (87%) than students in urban areas (83%), though this difference was not statistically significant



How Can Georgia Increase the Proportion of Children Covered by Dental Insurance?

Increase dental provider participation in Medicaid: Increasing dental provider participation in Medicaid may be achieved through higher reimbursement rates to providers for oral health services[4] and reducing the administrative burden for providers to enroll and participate.[6]

Conclusions

Overall

In the 2016-2017 academic year, nearly one out of every five Georgia third grade students had *untreated* dental caries. Half of all third grade students had experienced *any* caries, regardless of treatment status. Third grade students eligible for FRLP were about twice as likely to have dental caries than students not eligible for FRLP. Encouraging and educating parents about early and consistent dental care, offering children regular dental assessments, and providing fluoride varnish application could help decrease the prevalence of dental caries experienced by children.

Main outcomes

The prevalence of children who experienced dental caries, untreated caries, and needed early or emergency dental care was consistently higher among third grade students who were as compared to those who were not eligible for FRLP. This disparity serves as an indicator that children from low-income households may have poorer oral health outcomes than children who were not eligible for FRLP. The prevalence of dental sealants was higher among children not eligible than those eligible for FRLP. Black, Non-Hispanic and Hispanic children had a greater prevalence of dental caries experienced, untreated caries, and need for early or emergency care than white, non-Hispanic children.

Home and neighborhood characteristics

Rural students had a significantly lower prevalence of accessing drinking water not from a private well than urban students. Similarly, students eligible for FRLP had a lower prevalence of accessing drinking water not from a private well than students who were not eligible for FRLP. A private well drinking water source may reduce consumption of optimally fluoridated drinking water. Collaborating with partners like Georgia Rural Water Association could help ensure public/community water systems implement optimal fluoridation serving rural areas.

Child Behavior

The prevalence of consuming three or more sugar-sweetened beverages daily was highest among black, non-Hispanic students than other racial and ethnic groups and among children eligible for FRLP than students not eligible for FRLP. Discussing daily consumption of sugar-sweetened and other fruit beverages and their effect on oral and general health in a culturally sensitive way with parents of third grade students could help parents make informed choices to reduce sweetened beverage intake.

Health Care Access

Children eligible for FRLP had a significantly lower prevalence of dental visits in the last year than children who not eligible for FRLP. This disparity was consistent with the finding of a significantly higher proportion of students eligible for FRLP lacked dental care access when needed than students who were not eligible for FRLP. Black, non-Hispanic and Hispanic students were less likely to report a visit to the dentist in the past year than white, non-Hispanic students. Hispanic students were less likely to report medical and dental insurance than white, non-Hispanic students. The top reasons for lack of dental care access were lack of insurance and inability to pay for dental care. Increasing dental provider participation in Medicaid by increasing reimbursement rates to providers for oral health services, integrating medical and dental care, and providing appropriate referrals to dental providers could improve insurance coverage and overall access to dental care among all children.

References

1. Griffin SO, Wei L, Gooch BF, Weno K, Espinoza L. Vital signs: Dental sealant use and untreated tooth decay among U.S. school-aged children. *MMWR* 2016; 65(41): 1141-1145.
2. Ruff FF, Senthi, S, Susser SR, Tsutsui A. Oral health, academic performance, and school absenteeism in children and adolescents. *JADA* 2019; 150(2): 111-121.
3. Centers for Disease Control and Prevention. Strategies to Prevent Obesity and Other Chronic Diseases: The CDC Guide to Strategies to Increase the Consumption of Fruits and Vegetables. Atlanta: U.S. Department of Health and Human Services; 2011.
4. American Academy of Pediatric Dentistry (AAPD), Council on Clinical Affairs, Policy on Snacks and Beverages Sold in Schools, 2017
5. Georgia Oral Health Coalition – 2012 Oral Health Plan
6. Georgetown University Health Policy Institute - Oral Health Care: Can access to services be improved?
7. White Paper: Integrating Oral Health with Primary Health Care, Association of State & Territorial Dental Directors (ASTDD) 2016
8. Forman, J. Norman, A. Very Well Health-Dental Heath. Symptoms, Causes, Diagnosis, and Treatment of Fluorosis. https://www.verywellhealth.com/fluorosis-4174226 ; 2019.
9. American Academy of Pediatric Dentistry (AAPD), Clinical Affairs Committee, The Reference Manual of Pediatric Dentistry: Periodicity of Examination, Prevention, and Guidance, 2018