IDPH
ILLINOIS DEPARTMENT OF PUBLIC HEALTH

Healthy Smiles Healthy Growth 2023-2025: Assessment of Oral Health Status, Beverage Consumption and Body Mass Index of Third-Grade Children in Illinois

Healthy Smiles Healthy Growth Partners

The Illinois Department of Public Health (IDPH), through its Oral Health Section (OHS), led the Healthy Smiles Healthy Growth project. This initiative is partially supported by the Illinois Maternal and Child Health (Title V) Block Grant Program.

We extend our gratitude to the Illinois State Board of Education, the Oral Health Forum, the Chicago Department of Public Health, Chicago Public Schools, the Association of State and Territorial Dental Directors, the Healthy Smiles Healthy Growth calibrated screeners, as well as the parents and staff of all participating schools for their invaluable support. Without the efforts of dedicated IDPH staff and these partners, this project would not have been possible.

A very special thank you goes to the Illinois Children's Healthcare Foundation and the Delta Dental of Illinois Foundation. Their investment was crucial to the success of this project.

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Executive Summary

The Healthy Smiles Healthy Growth (HSHG) 2023–2025 survey, conducted by the Illinois Department of Public Health (IDPH) Oral Health Section, assessed the oral health, body mass index (BMI), and beverage consumption patterns of over 2,000 third-grade children across 111 Illinois public schools. Following the standardized Basic Screening Survey (BSS) protocol, this fifth statewide assessment provides a comprehensive update on children's oral and physical health and progress toward Healthy People 2030 (HP2030) objectives.

Illinois demonstrated mixed progress toward HP2030 benchmarks. The state met the national target for dental sealants (49.1% vs. 42.5% HP2030 goal), reflecting strong preventive efforts, particularly through school-based oral health programs. However, Illinois did not meet targets for caries experience (53.5% vs. 42.9%), untreated decay (30.7% vs. 10.2%), or childhood obesity (37.0% vs. 15.5%). The data indicate that despite prevention gains, treatment access and overall disease burden remain significant public health challenges.

Between 2018–2019 and 2023–2025, dental caries prevalence rose from 41.6% to 53.5%, and the need for urgent dental care increased to 6.7%, equating to approximately 8,860 Illinois third graders experiencing pain or infection during school. Persistent disparities exist: non-Hispanic Black (37.2%) and Asian (39.6%) children had the highest rates of untreated decay, while Hispanic/Latino children showed the greatest overall disease burden (67.1% caries experience). Children eligible for the Free and Reduced-Price School Lunch (FRPSL) program experienced significantly higher rates of untreated decay (38.8%) and urgent care need (9.2%) compared to non-eligible peers (18.0% and 2.0%, respectively).

Although sealant rates exceeded HP2030 goals statewide, they varied widely by region—from 35.2% in Rockford to 66.6% in Marion—highlighting geographic inequities. Importantly, the Marion region, despite high sealant coverage, also reported one of the highest rates of caries (60%), suggesting that prevention alone cannot offset existing disease or structural barriers to treatment.

Findings on beverage consumption further underscore the connection between diet and oral health. Children who drank sugar-sweetened beverages (SSBs) daily had significantly worse oral health—56.8% caries experience and 33.5% untreated decay, compared to 43.1% and 22.9% among those who abstained. Frequent water consumption (≥4 times/day) was linked to reduced caries and untreated decay.

BMI data revealed growing concern: one in five third graders (22.4%) were obese, and over one in three (37%) were overweight or obese. Rates were highest among Hispanic/Latino children (57.8%) and those from low-income households (45.1%).

Overall, the HSHG 2023–2025 survey illustrates both progress in preventive care and persistent inequities in disease burden, access, and outcomes. These findings emphasize the need for integrated, equity-focused strategies—expanding early education, preventive care, and treatment access; promoting water over sugary beverages; and addressing systemic barriers that perpetuate disparities in oral and overall health among Illinois children.

KEY FINDINGS SUMMARY TABLE

Preventive Care and Treatment Needs:

- **Caries Experience**: The prevalence of decay increased substantially from 41.6% in 2018-19 to 53.5% in 2023-25. Caries experience remains a significant public health issue, affecting more than five out of ten third-grade children in Illinois.
- **Dental Sealants**: Forty-nine percent of third-grade children had at least one dental sealant on a permanent molar, a decrease of 4% from 53.0% in the 2018-19 survey. Non-Hispanic Asian and Black/African American children had the lowest sealant rates at 41.0% and 47.2%, followed by Hispanic/Latino (any race) at 48.3%.
- **Untreated Caries Rates**: The rate of untreated dental caries in 2023-25 (30.7%) increased by 8.5% from 2013-14 (22.2%). The national average for untreated caries among children (2 – 19 years of age) is 46.0% and remains higher among Black and Mexican American children, as well as those living in low-income families. Significant disparities also exist in Illinois, with non-Hispanic Asian and non-Hispanic Black/African American children (39.6%, 95% CI (29.9%-49.2%) and 37.2%, 95% CI (31.2%-43.2%)) having higher rates of untreated dental caries compared to non-Hispanic White children (24.2%, 95% CI (19.0%-29.4%)).
- **Urgent Dental Treatment Need**: Approximately 6.7% of third-grade children required urgent dental care due to pain, swelling, or infection which we estimate equates to over 8,860 children experiencing dental issues in the classroom. This is 2.7% higher than the estimate from 2018-19, with non-Hispanic Black children having the highest burden (10.7%). Children eligible for the free or reduced-price school lunch (FRPSL) program have a significantly higher need for urgent care (9.2%, 95% CI (6.5%-11.9%)) compared to non-eligible children (2.0%, 95% CI (0.8%-3.2%)).

Body Weight Status:

- **Overall Proportion**: The proportion of overweight or obese third-grade children increased from 32.6% in 2018-19 to 37.0% in 2023-25. In 2023-25, Hispanic/Latino third-grade children had the highest rates of overweight/obesity (57.8%), followed by non-Hispanic Black/African American (41.1%).
- **FRPSL Program**: Third-grade children eligible for the FRPSL Program had higher rates of overweight and obesity (45.1%) compared to non-eligible children (25.6%).
- **Obesity Rates**: Nearly one in five third-grade children in Illinois was classified as obese (22.4%) according to Centers for Disease Control (CDC) standards. This is a 4.4% increase over the 2018-19 HSHG survey estimate.

Beverage Consumption:

- **Sugar-Sweetened Beverages**: Children who drank sugar sweetened beverages (SSB) one or more times per day had a caries experience rate of 56.8% compared to children indicating no SSB consumption (43.1%). In addition, untreated caries rates of 33.5% versus 22.9%, respectively.
- **Water Consumption**: Drinking water four or more times per day appears protective, associated with decreased caries experience (49.8% vs. 57.8%) and untreated caries (29.5% vs. 32.6%) when compared to children drinking water <4 times per day.

About Healthy Smiles Healthy Growth

Healthy Smiles Healthy Growth (HSHG) is an oral health and body mass index (BMI) assessment program for third-grade children in Illinois. The program collects data on oral health status, height, and weight from a randomized statewide sample, categorized by geographic areas (e.g., urban, rural, etc.). By fostering collaboration and raising awareness, HSHG highlights the interconnection between oral health and general health. Additionally, conducting this survey in a school-based setting offers a unique opportunity to gather youth data that is not otherwise available in Illinois.

The Purpose of Healthy Smiles Healthy Growth

Oral health problems in school-age children can lead to increased absenteeism, frequent hospital visits, poor concentration, lack of sleep, difficulty eating, undernutrition, decreased school performance, poor self-esteem, higher healthcare costs for parents, social relationship issues, depression and anxiety later in life, and an overall low quality of life (Jackson SL, et al, 2011).

Obesity is linked to chronic diseases such as hypertension, diabetes, asthma, anxiety, and depression (CDC, Consequences of Obesity). Additionally, childhood obesity is often linked to obesity in adulthood, impacting many aspects of a child's physical and mental health (Venn et al., 2007; Kumar & Kelly, 2017). Some of the same strategies used to prevent obesity, which include regular physical activity and consumption of healthy foods and beverages, can also contribute to preventing oral health problems.

The HSHG assessment aims to enable the Illinois Department of Public Health (IDPH), state and local agencies, foundations and other organizations to develop policies and programs to improve children's health. Information and data contained herein will facilitate the creation of data-informed interventions to address oral health and body weight status issues. Furthermore, statewide data for children and adolescents regarding body weight, specifically BMI, is a key health indicator. This metric is included in Healthy People 2030 as part of the objective to reduce the proportion of children and adolescents with obesity (target = 15.5%). Compiling this information is critical for tracking weight trends in this age group and to inform further research and interventions related to childhood obesity and related chronic diseases.

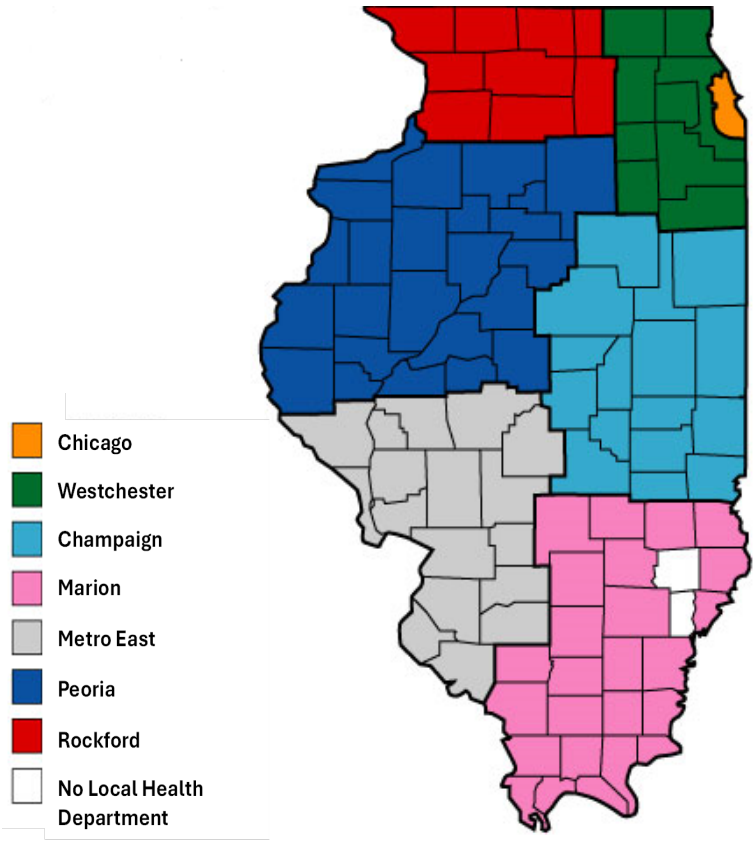
The HSHG 2023-25 project adds to the body of childhood oral health and body weight status knowledge of prior HSHG reports by providing an updated statewide snapshot of body weight and height among third graders. This is the fifth assessment conducted, contributing to twenty years of Healthy Smiles Healthy Growth data. Reports from the previous four surveys are available on IDPH's webpage at Illinois Department of Public Health - Oral Health Data. Statewide assessments like HSHG inform the Illinois Oral Health Surveillance System Plan, support oral health objectives for the national Healthy People 2030 goals (HP 2030), and contribute data to the National Oral Health Surveillance System (NOHSS) maintained by the U.S. Centers for Disease Control and Prevention (CDC).

Methods

This survey occurred during the 2023-24 and 2024-25 school years, with most of the clinical data collection taking place between October 2023 and May 2025. Third-grade children, typically aged eight to nine years, present with both primary (baby) teeth and secondary (adult or permanent) teeth. The presence of mixed dentition allows for the documentation of dental disease, untreated dental disease, and access to preventive dental sealants. The survey follows the Basic Screening Survey protocol developed by the Association of State and Territorial Dental Directors, which was used in all previous Illinois HSHG surveys. The methodology recommends that states conduct this survey every five years; the 2023-25 HSHG is Illinois' fifth such survey.

One hundred and twenty schools were selected with probability proportional to size (PPS) from a statewide sampling frame of 1,707 schools to participate in the survey. The list of schools was stratified and sorted to achieve a representative selection: first by Illinois public health region (Rockford, Peoria, Metro East, Marion, Champaign, Westchester) and the city of Chicago); then by urbanicity within the Rockford, Peoria, Metro East,

and Champaign regions and by county in the Westchester collar county region; and finally, by socioeconomic status, measured by the percentage of children eligible for the free or reduced-price school lunch (FRPSL) program. This survey design ensures proportional representation of the Illinois public school third-grade population by geography and socioeconomic status (SES).



The sample size of 120 schools was considered logistically and economically feasible and ensured that a minimum number of schools were selected from each geographic area in each health region. Originally selected schools that declined were replaced with randomly selected PPS schools in the same region/urbanicity/SES sampling interval to ensure the survey remained representative of the state public school population. In the event replacement schools declined, a two-step matching process was implemented to select the next best replacement school: 1). Exact match selection from the appropriate region and urbanicity classification and 2). A “best match” to the original percentage of children eligible for the FRPSL Program (+/- 5%). A total of 111 of 120 targeted schools were surveyed due to waning interest among schools to participate and survey staff shortages.

Survey team members (dentists and dental hygienists) attended a calibration session that reviewed screening methods, dental diagnostic criteria, and standard protocols for collecting and recording oral health as well as height and weight measurements. Survey teams were provided with the Survey Consent and Questionnaire, data collection forms, consent reminder stickers, incentives for children (toothbrush kits, pencils), and IDPH-calibrated scales and stadiometers. Illinois-licensed dentists and dental hygienists conducted the screenings at schools, adhering to the diagnostic criteria outlined by ASTDD. Dental screening measures are presented in Table 1: Basic Screening Survey Measures and Definitions for HSHG 2023-25, Illinois (Appendix: HSHG 2023-25 Tables).

In addition to active consent provided by the parent or guardian, the protocol required positive assent from the child on the day of the survey. Parents or guardians could opt-out of the oral screening, height, and weight assessment, or choose not to answer the optional questions. Demographic and non-clinical information was obtained from parents/guardians using the Survey Consent and Questionnaire. This included the child’s date of birth, gender, race (Black/African American, White non-Hispanic, Hispanic/Latino, Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, Asian, Bi-/multi-racial, Other, and prefer not to answer), primary language spoken at home (free text responses), and the child's eligibility for the FRPSL program (yes, no). Hispanic/Latino refers to children whose ancestors can be traced to Central and South America, Mexico, and the Caribbean.

Parents/guardians were also asked about dental insurance coverage, the condition of their child’s teeth, recent use of dental services, inability to obtain needed dental care and longer-term unmet oral health needs. To understand changes in beverage consumption patterns, parents were asked two questions: one on the daily frequency of plain water intake (tap, bottled, and unflavored sparkling water) and a separate question on the

daily frequency of sugar-sweetened beverage intake, such as soda/pop, fruit juices, sweetened tea or coffee, energy, or other sugary drinks. The Survey Consent and Questionnaire was available in Arabic, Chinese, English, Polish, Spanish, and Ukrainian. A sample Survey Consent and Questionnaire and the Screening Form instrument can be found in the Appendix of this report.

Oral health education was provided in most of the schools before distribution of the Survey Consent and Questionnaire. During this time, goody bags containing a toothbrush, toothpaste, floss, and an oral health education brochure were given to all third-grade children in the participating schools.

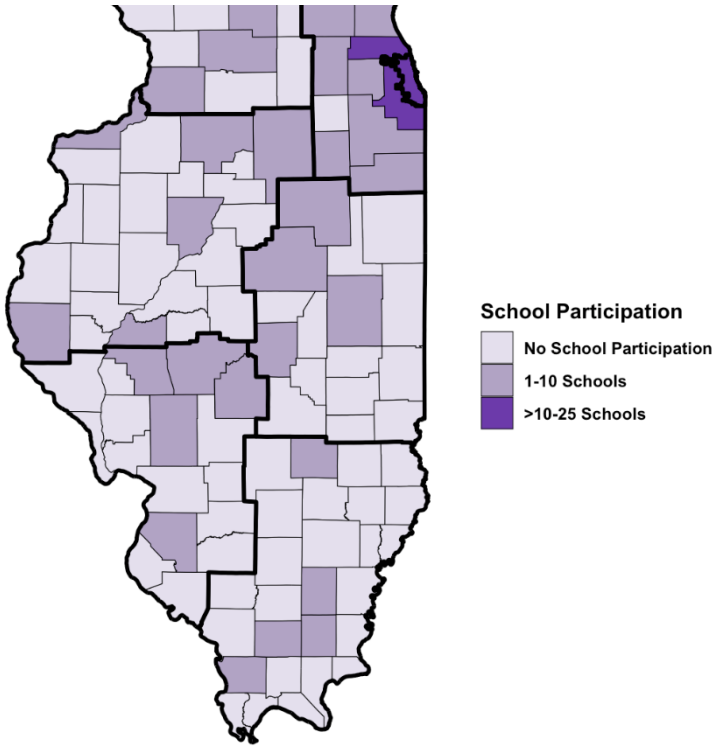
Survey teams used disposable mouth mirrors, light sources, disposable gloves, tongue depressors, and calibrated height and weight measuring equipment to conduct the screenings and collect clinical variables. Cotton gauze and toothpicks were available to clean tooth surfaces but were not routinely used. Children removed shoes and heavy outerwear before weighing. A wooden 90-degree angle portable stadiometer was used for measuring height, and weights were measured with a digital scale. The oral assessment, height, and weight measurements took about five minutes per child and were recorded on the HSHG 2023-25 Data Collection Form (see Appendix A). At the end of the screening, each child received a letter addressed to their parent or guardian noting the results of their oral assessment and selected a pencil or an "I 💔 my teeth" plastic bracelet as a thank you.

Survey data collected on paper were sent to IDPH and entered into a database that was analyzed by an ASTDD consultant using SAS software. The data were weighted to account for the complex sampling scheme design and for non-response. Analyses included frequencies, cross-tabulations, and 95% confidence intervals. Height and weight measurements were used to calculate BMI for each child based on the CDC sex- and age-specific growth charts. Children were ranked into defined percentiles for Healthy Weight, Overweight, and Obese BMI categories (Appendix: Table 2). The Institutional Review Board (IRB) of the IDPH granted an exemption from Human Subjects Research for the survey, and the Chicago Public Schools (CPS) Research Review Board also approved the survey.

RESULTS

A stratified PPS statewide sample of 120 schools was selected for the survey, with 111 schools ultimately participating in the Healthy Smiles Healthy Growth 2023-2025 Survey. These schools represented 34 Illinois counties distributed across the six Illinois public health regions (Figure 1). A total of 6,832 students were enrolled at the 111 schools during the 2023-24 and 2024-25 school years; 2,021 students returned a parental consent, and of these, 2,002 students were screened yielding a 29.3% student participation rate. Demographic characteristics, clinical, and non-clinical data of participating children are presented in tables found in the Appendix of this report.

Figure 1. Number of Schools Participating in the IL Healthy Smiles Healthy Growth 2023-2025 Survey



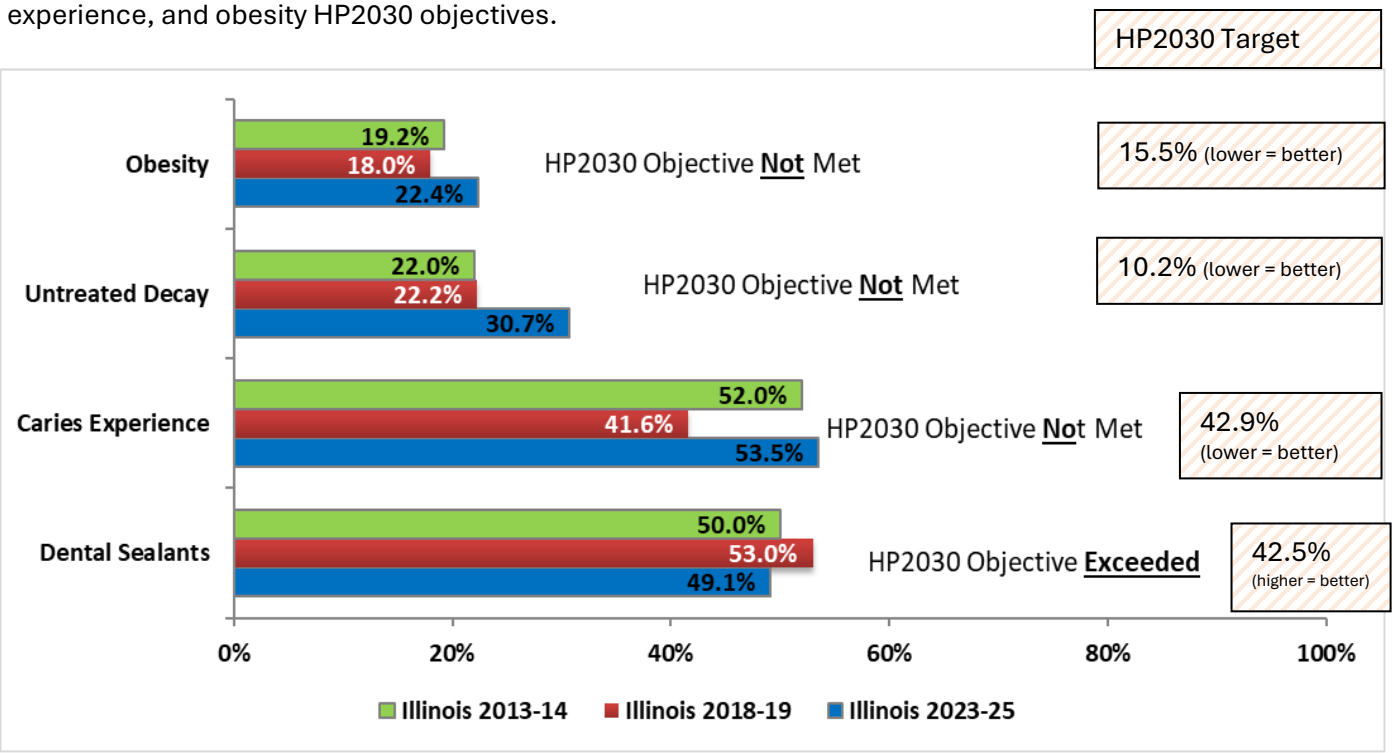
PERFORMANCE ON SELECT NATIONAL OBJECTIVES

Healthy People 2030 (HP 2030) objectives provide the framework for a shared focus to improve the nation's health. The HP2030 oral health objectives for children and adolescents ages 3 to 19 years are dental sealants on 1 or more molars (target: 42.5%), caries experience (target: 42.9%), and active and untreated tooth decay (target: 10.2%). The Nutrition and Weight Status (NWS) HP 2030 objective that coincides with this survey is "reduce the proportion of children and adolescents, 2 to 19 years of age, with obesity" (target: 15.5%).[1]

Illinois' progress toward achieving HP2030 benchmarks was mixed. The HSHG 2023-25 survey indicates that Illinois met the HP2030 objective for dental sealants, but not for caries experience, untreated tooth decay, or obesity for children and adolescents. (Figure 2).

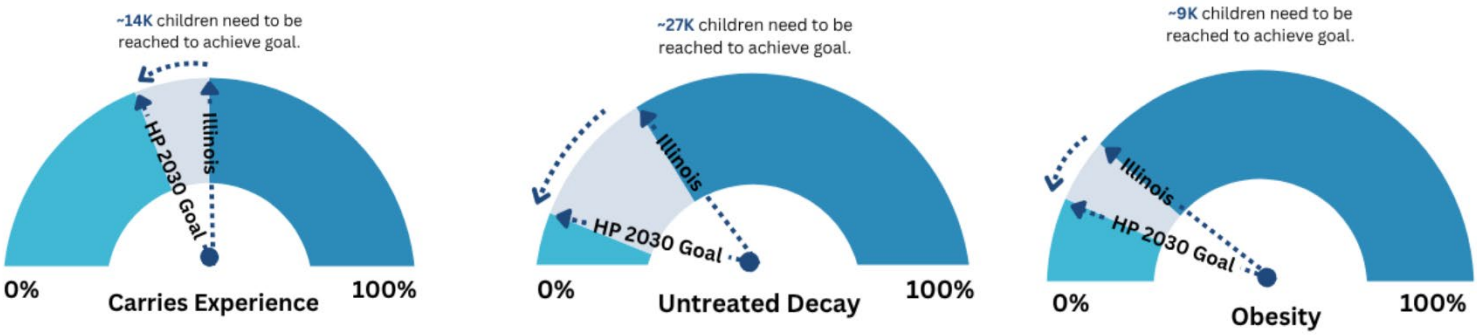
[1]Comparisons to meeting HP 2030 targets should be used with caution due to the variation in the age range for the specified objective(s) versus the age range represented within the HSHG survey report. The range of ages of the HSHG cohort is 8 to 10 years, with a mean age of 9 years.

Figure 2. Healthy People 2030 Objectives by 2013-14, 2018-19, and 2023-25 Performance Illinois is meeting the dental sealants HP2030 objective, but progress is needed on the untreated decay, caries experience, and obesity HP2030 objectives.



Specifically, to meet HP 2030 targets, it is estimated[2] that approximately 9,000 third-grade children across Illinois would need to be reached to prevent or reverse obesity, 14,000 children to prevent caries experience, and 27,000 children to address untreated tooth decay (See **Figure 3**: Estimated number of IL third-grade children to be reached to meet HP2030 goals).

Figure 3. Estimated number of IL third-grade children to be reached to meet HP2030 goals



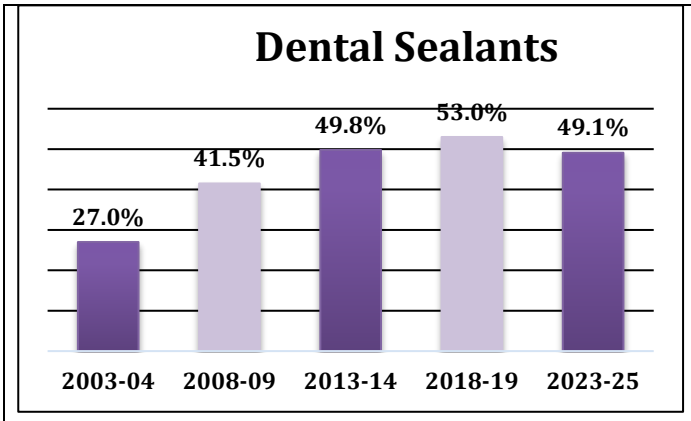
[2]Estimates generated from the Illinois State Board of Education (ISBE) *Fall Enrollment Summary Report* (2023-2024 and 2024-2025), counts of third-grade children enrolled in public schools. Percent toward goal is based on a weighted sample across Illinois.

Oral Health Trends

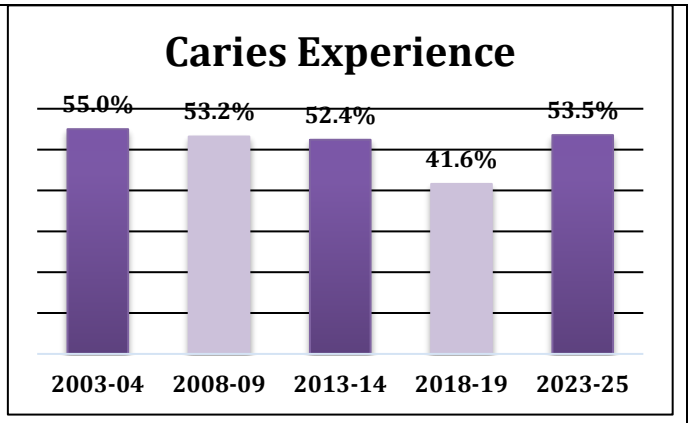
Trends in Healthy Smiles Healthy Growth 2003-04 to 2023-25

Figure 4 shows trends over the last 20 years in presence of dental sealants (A), caries experience (B), untreated caries (C), and rampant caries (D). Presence of dental sealants indicates access to evidenced-based therapies that prevent dental caries, the presence of untreated dental caries (active disease) may indicate a lack of treatment access, treated decay indicates the availability of treatment access, and caries experience describes the burden of dental caries. Rampant caries describes the severity of dental disease and is coded when a child presents with seven or more teeth with untreated and or treated decay.

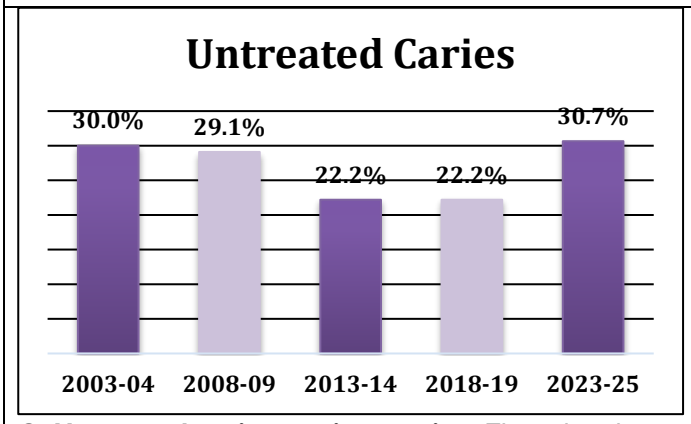
Figure 4. Trend Over Time in Percentage of Illinois Third-Grade Children with Dental Sealants, Caries Experience, Untreated Caries, and Rampant Caries.



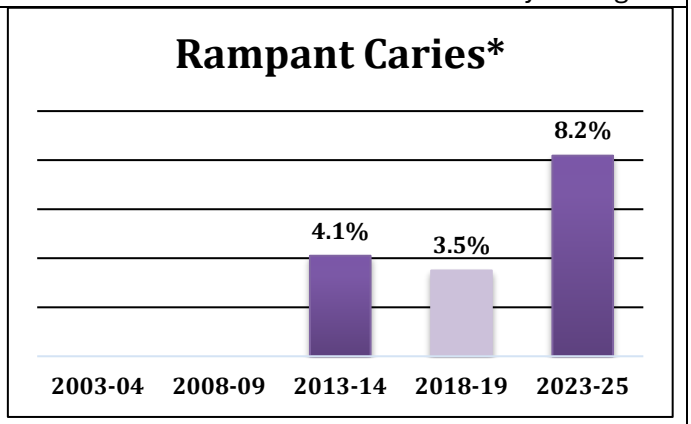
A. Almost half of children had protective sealants on their teeth in 2023-25. Although the sealant rate has remained steady over the past 10 years, the number of children that have protective sealants has increased substantially since 2003-04.



B. Caries experience has increased to rates seen over 15 years ago. There has been a substantial decrease in caries experience among third-grade children in 2018-19, but 2023-25 rates have increased back to rates seen over fifteen years ago.



C. Untreated caries are increasing. There has been a decrease in untreated caries since 2003-04. However, 2023-25 survey data show a significant increase with the highest rates seen in twenty years (30.7%).



D. Rampant caries have doubled. There has been a slight decrease between 2013-14 and 2018-19, but a significant increase in 2023-25. *Data not available

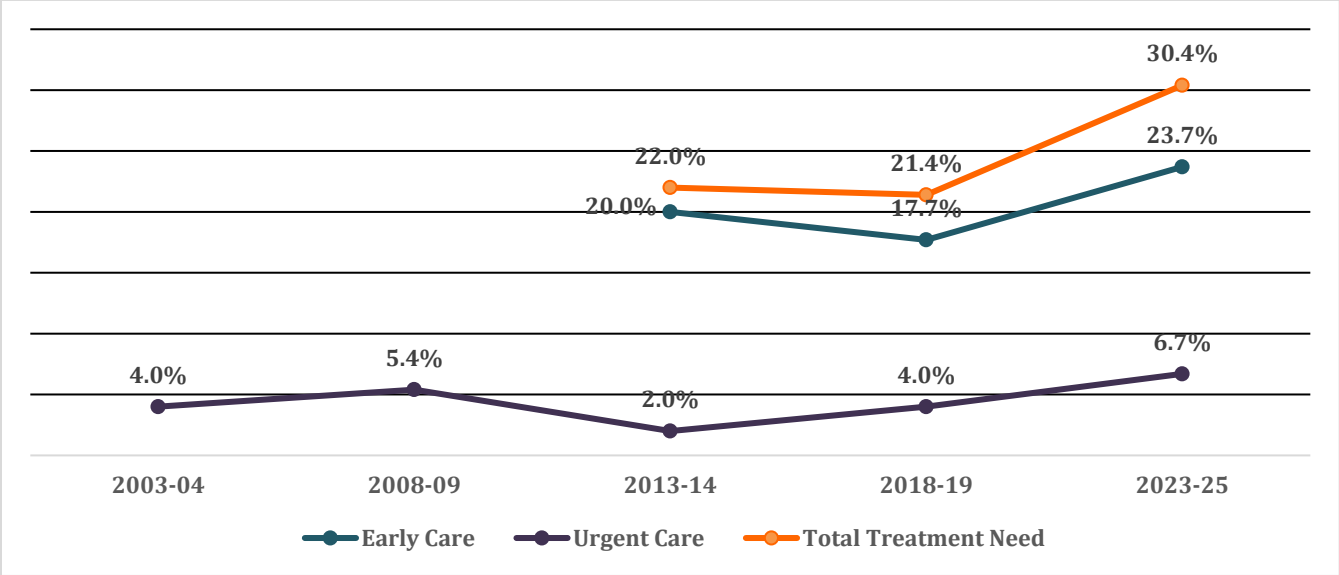
The percentage of children with untreated dental caries decreased between 2008-09 and 2013-14 and remained stable through 2018-19. However, a sharp increase in untreated caries was shown by the 2023-25 survey (30.7%). This finding may indicate insufficient opportunity among Illinois children to access disease corrective services that can be provided by a dentist.

Caries experience, a combination of treated and untreated dental caries in primary and/or permanent teeth and a proxy for disease burden, decreased across the four previous survey periods. However, the 2023-25 survey showed an increase to 53.5%.

Dental sealants prevent the entry of dental caries causing bacteria, have increased consistently with each survey period, with the exception of the 2023-25 survey period. In the baseline survey conducted in 2003-04, less than one child in three had a dental sealant. This proportion increased to more than one in two in the 2023-25 HSHG survey. School-based oral health programs and contributions by private practice providers are largely responsible for the doubling of dental sealant rates (Valencia, 2015).

The data provided in Figure 6 divides the total treatment need (30.4% total) into early need and urgent need for disease-corrective dental care. Children with cavitated lesions without accompanying signs or symptoms were coded as having early dental care needs that should be addressed ideally within one month. The percentage of children with early care needs increased in 2023-25 to 23.7% from 17.7% in 2018-19. Children with signs or symptoms that included pain, infection, or swelling were coded as having urgent care needs that should be addressed within 24 to 48 hours. Children with an urgent care need increased in the 2023-25 survey to 6.7% from 4.0% in 2018-19 (Figure 5).

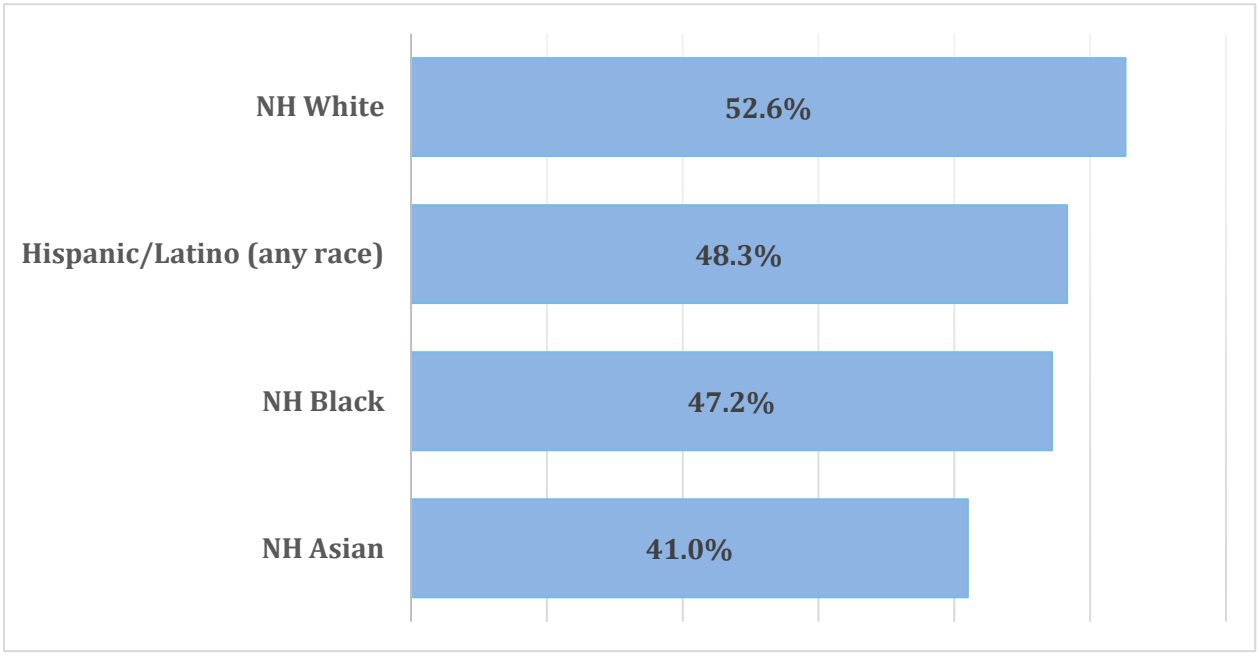
Figure 5. The need for early care and urgent care has increased since 2018-19.
*Early care need data were not collected during the 2003-04 and 2008-09 survey but were collected in subsequent surveys.



The average enrollment in public schools during the 2023-24 and 2024-25 school years among third-grade children was 132,237 (Illinois State Board of Education, 2025). Using this enrollment number and an estimated rate of 6.7% of children needing urgent dental care, we estimate that over 8,860 third-grade children could be in class with pain or swelling. This finding is not only a threat to individual health and wellbeing, but also highly likely to impact these children's academic performance and social interaction with their peers (Jackson, SL).

Children of all race/ethnic groups met the HP2030 objective for dental sealants (Figure 8) of 42.5%. However, non-Hispanic Asian (NH Asian) and non-Hispanic Black (NH Black) children, followed by Hispanic/Latino children of any race, had the lowest percentage of dental sealants. Children's sealant rates by race/ethnic groups are 52.6% of non-Hispanic White (NH White), 48.3% of Hispanic/Latino, 47.2% of NH Black children, and 41.0% of NH Asian children.

Figure 6. Race/Ethnicity is a Factor in the Presence of Dental Sealants. NH Asian children were least likely to have dental sealants followed by NH Black children and Hispanic/Latino children of any race. (2023-2025)



Comparing sealant rates between HSHG survey years 2023-25, 2018-19, and 2013-14 shows the disparity gap by race/ethnicity for dental sealants seems to be decreasing among NH Black children as compared to children of other races/ethnicities. However, Hispanic/Latino children of any race showed a substantial decrease in dental sealant rates between the 2013-14 and the subsequent 2018-19 and 2023-25 survey years. And while NH White children had an increase in dental sealants between 2013-14 and 2018-19, the 2023-25 survey showed an almost 5% decrease (Figure 7). In addition, the 2023-25 survey showed a decrease in sealant rates among NH Asian children.

Figure 7. Variation in Dental Sealants Exists by Race/Ethnicity Comparison of 2023-25, 2018-19, and 2013-14 dental sealant rates show that the presence of dental sealants among NH Black children have increased, although still not as high as Hispanic/Latino children and NH White children.

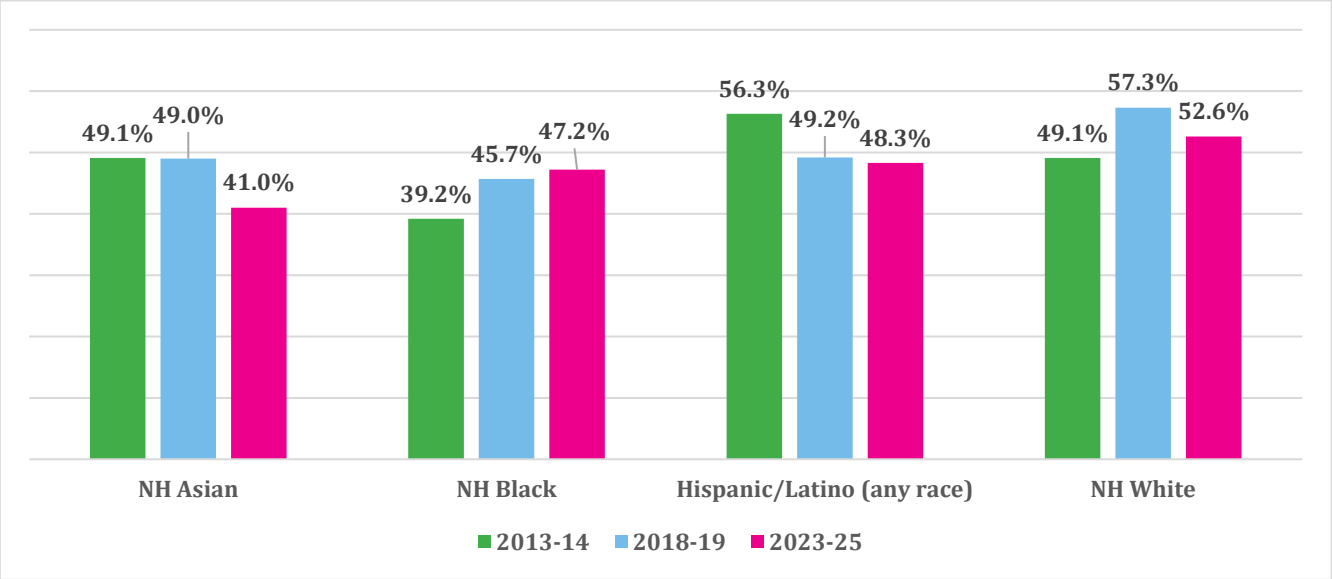


Figure 8 below shows levels of untreated caries and caries experience (untreated decay, treated decay, or both). The proportion of children affected by untreated caries and caries experience differs between racial/ethnic groups. Overall, 24.2% of NH White, 35.6% of Hispanic/Latino, and 37.2% of NH Black/African American third-graders were affected by untreated caries (2023-25). Caries experience was the highest in Hispanic/Latino (67.1%), followed by NH Black/African American (51.7%), and NH White (46.0%) children.

Figure 9 shows disparity by race/ethnicity in clinical variables measured. HSHG 2023-25 showed that NH Black have the lowest dental sealants rates, the highest rate of treatment need, and the highest rate of early and urgent care need. Asian children were the most impacted by rampant caries and had the second highest rate of early and urgent care need These findings indicate that prevention and treatment work need to continue to reduce disparities, with a focus on NH Black and NH Asian children.

Figure 8. Race/Ethnicity can be a Factor in Untreated Dental Caries and Caries Experience Asian children were more likely to have untreated dental caries, while Hispanic/Latino children carried the most disease burden overall with the highest rate of caries experience. (2023-2025)

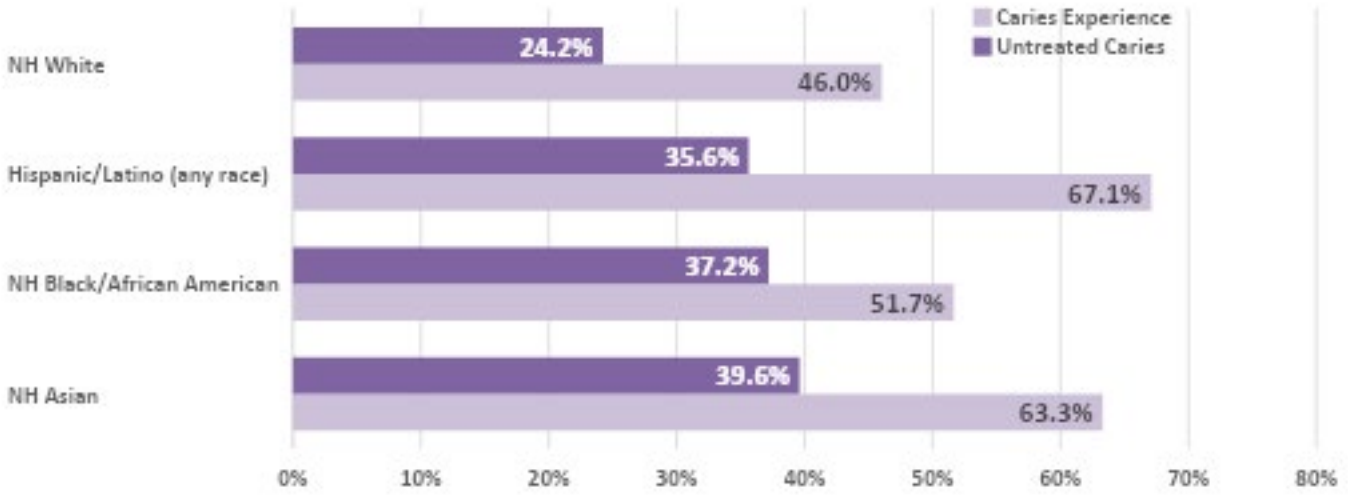
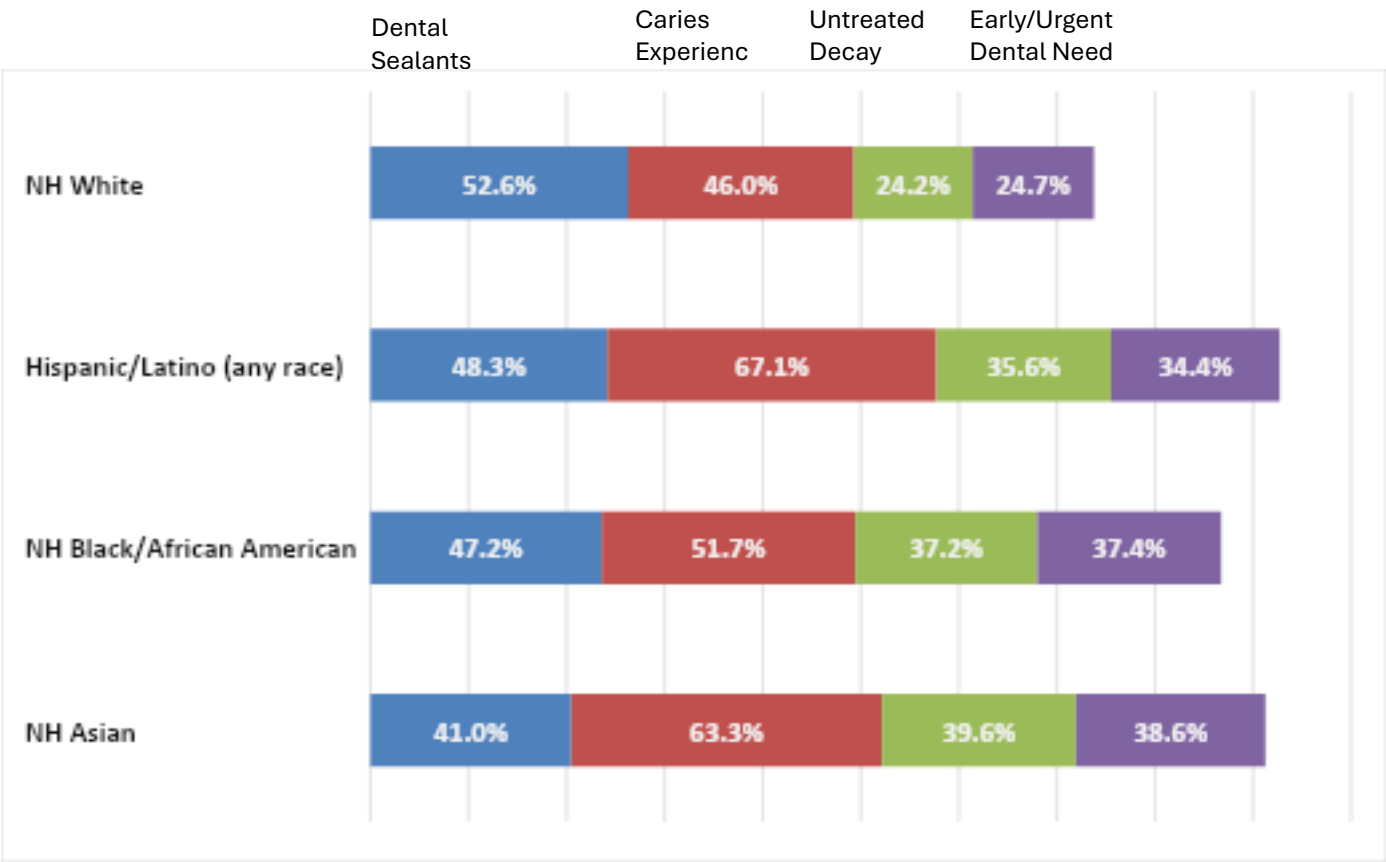


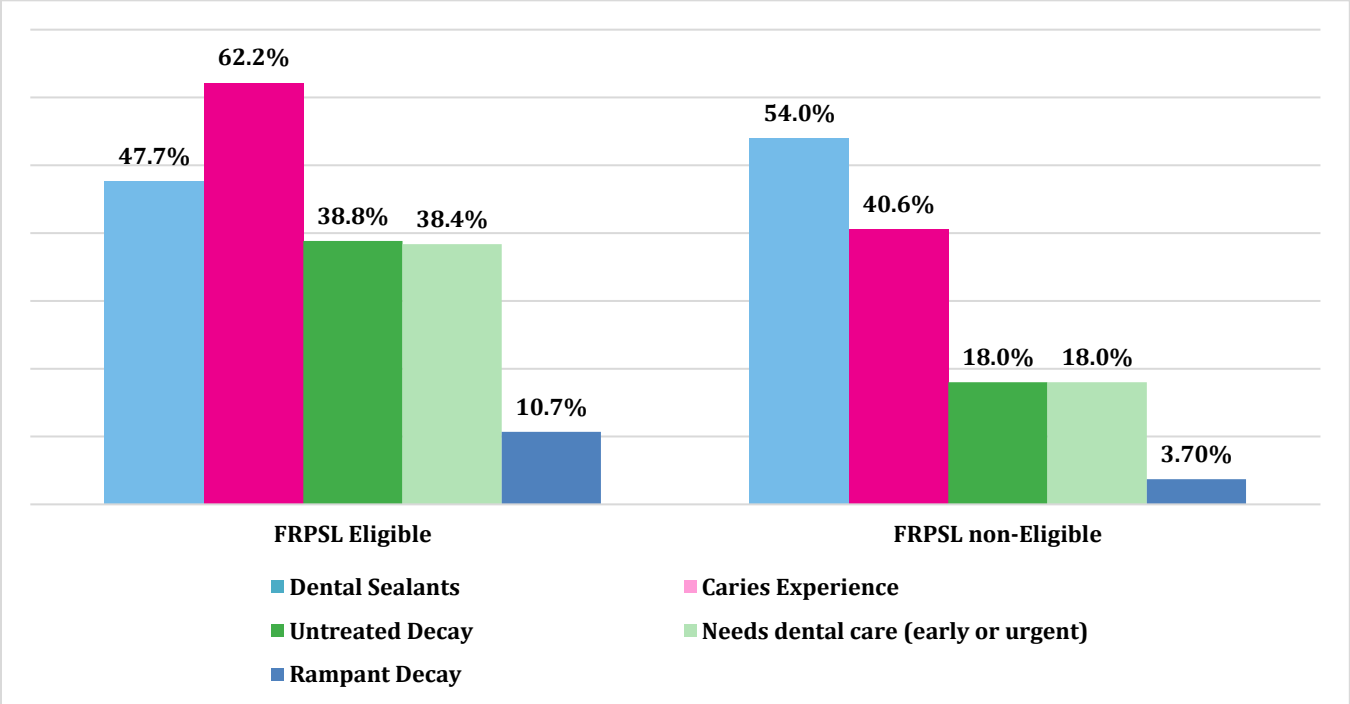
Figure 9. Race/Ethnicity is a Factor in Prevention and Presence of Dental Disease. NH Asian, Black, and Hispanic/Latino children were less likely to have dental sealants and more likely to have active and/or untreated dental disease and immediacy in care needs. (2023-2025)



Dental insurance coverage, and therefore access to care, among children (0 – 18 years) is at an all-time high with 53% privately insured, 38% publicly insured, and 9% uninsured. (American Dental Association, 2024). However, this trend will be monitored closely due to projections that many have or will lose access in the coming year. Many disparities persist, potentially due to additional barriers to care, such as dental workforce shortages, especially in rural areas of Illinois; access to education on the importance of oral health; and other systems/infrastructure barriers (e.g., transportation, access to healthy foods, etc.).

Figure 10 shows that children eligible for the FRPSL Program, a proxy measure for low income, were more affected by all measures of dental disease (caries experience, untreated caries, rampant decay) and needed early and urgent care at higher rates than FRPSL non-eligible third-grade children. Dental sealants were present in 47.7% of low-income children, compared to 54.0% in their high-income counterparts. The disparity in overall dental sealant rate between these two groups of children has continued to decrease steadily over the past decade, suggesting access to preventive services for FRPSL-eligible children in Illinois is improving. The larger disparities in oral disease burden and the need for early and urgent dental care between these two groups indicates a need for disease treating programs that target low-income children attending public schools.

Figure 10. Free or Reduced-Price School Lunch Program (FRPSL) Eligibility is a Factor in Oral Disease Burden and Immediacy of Dental Care Needs. (2023 – 2025)

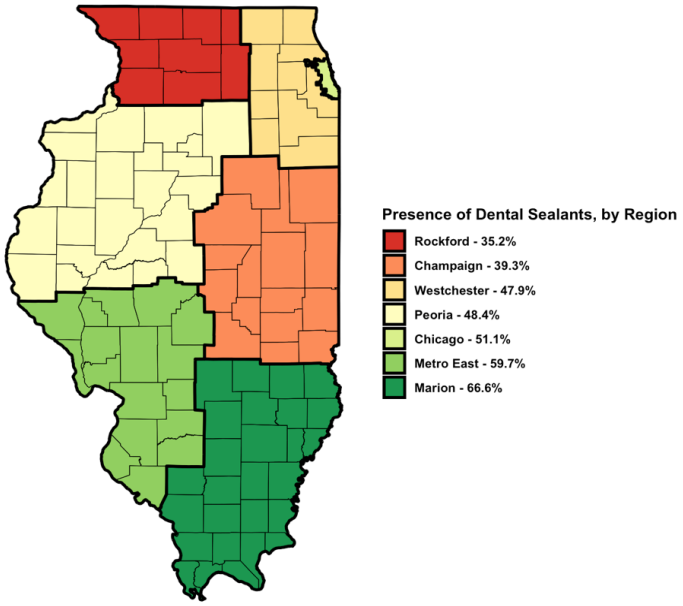


SURVEY MEASURES BY IDPH PUBLIC HEALTH REGIONS

Data from the 2023-2025 survey indicates dental sealant rates exceed HP2030 (42.5%) in five of the six public health regions and the City of Chicago. As can be seen in Figure 11, there is a large geographic variability in the presence of dental sealants.

Additional regional data for HSHG 2023-25 shows that Marion Public Health Region had the highest percentage of children with a dental sealant at 66.6%, caries experience (60.0%) and dental care need (26.2%). Given that even with the very high infiltration of dental sealant services, the burden of oral diseases is highest in children living in the Marion region (60.0%, HSHG 2023-25 Tables, see Appendix), highly successful prevention programs can only go so far to address the overall burden of carious disease. Alternatively, dental disease could become worse in this region if left without a dental sealant program.

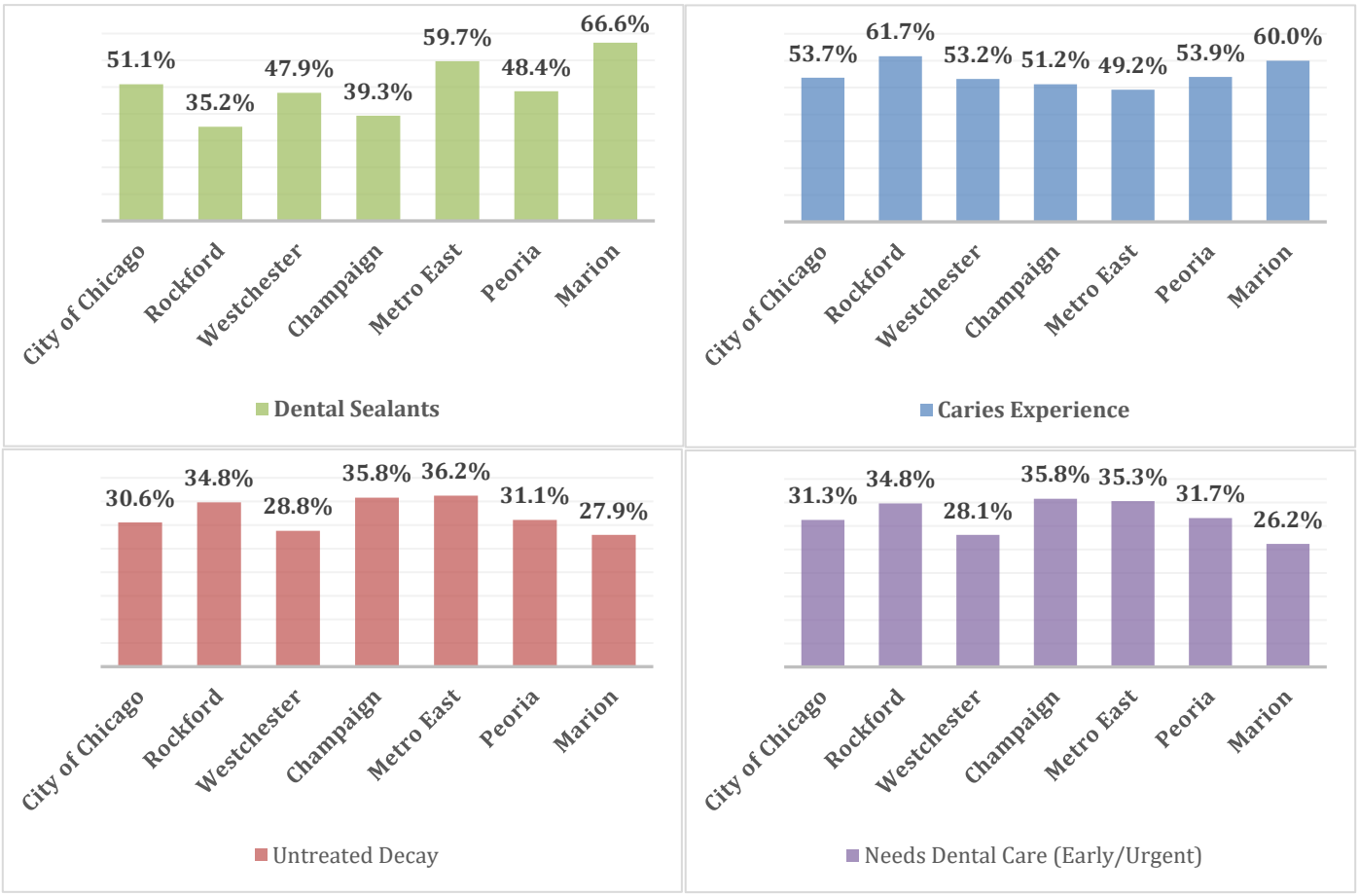
Figure 11. Dental Sealants by IDPH Public Health Region (2023 – 2025)



The summary of oral health data by public health region and the City of Chicago (Figure 12) is as follows:

- Children living in the **Rockford Public Health Region** had the lowest dental sealant rate (35.2%), was slightly above the statewide average for untreated caries (34.8%) and was the third leading region for needing early and urgent dental care (34.8%).
- Children living in the **Metro East Public Health Region** had the second-highest dental sealant rate. However, they had the highest rate of children with untreated caries at 36.2%, more than 5% above the state average.
- Children living in the **City of Chicago** were above the state average for dental sealants (51.1%). However, more work is needed as indicated by levels above the state average for caries experience (53.7%).and the need for early and urgent dental care (31.3%).
- Children living in the **Westchester Public Health Region** had percentages lower than the state average for decay experience (53.2%), dental sealants (47.9%), untreated decay (28.8%), and early and urgent dental care need (28.1%).
- Children living in the **Champaign Public Health Region** were almost ten percent lower than the statewide average for dental sealants (39.3%) and above the statewide average for untreated decay (35.8%)and early and urgent dental care need (35.8%).
- Children living in the **Peoria Public Health Region** were just below the Illinois statewide average for dental sealants at 48.4% while untreated decay and decay experience were just above the statewide average at 31.1% and 53.9%, respectively..
- Children living in the **Marion Public Health Region** had the highest rate of dental sealants (66.6%), but also had the 2nd highest caries experience (60.0%). The untreated caries rate was slightly below the statewide average at 27.9% and early and urgent dental care need was the lowest among all other regions at 26.2%.

Figure 12. Presence of a Protective Dental Sealant, Early and urgent Treatment Need, and Caries Varies by Where a Child Lives. Illinois regions experiencing the highest rates of protective dental sealants may also have the highest unmet treatment need and high oral disease burden. (2023-2025)



BEVERAGE CONSUMPTION

As children consume more sugar-sweetened beverages (SSBs), their intake of plain and fluoridated water may decrease, increasing their risk for dental caries. To better understand this pattern, the HSHG 2023–25 survey used the Survey Consent and Questionnaire to ask parents how often per day their child consumed plain water and SSBs. Frequency of SSBs and water intake were correlated with clinical findings: caries experience, untreated dental caries, rampant caries, and need for early and urgent care (Figures 14 and 15). Figure 13 shows that children who consumed one or more SSB per day had higher rates across all oral health disease measures. A shift in drinking patterns from plain water (tap, bottled, and unflavored sparkling water) to sugar-sweetened beverages may explain the very high rates of documented untreated caries and caries experience found in children who consume any SSBs.

Figure 13. Dental Caries Increases with Frequency of Sugar-sweetened Beverage Consumption

Measures of untreated caries and caries experience for children who consumed SSBs one or more times per day were substantially higher when compared to children who did not consume any SSBs.

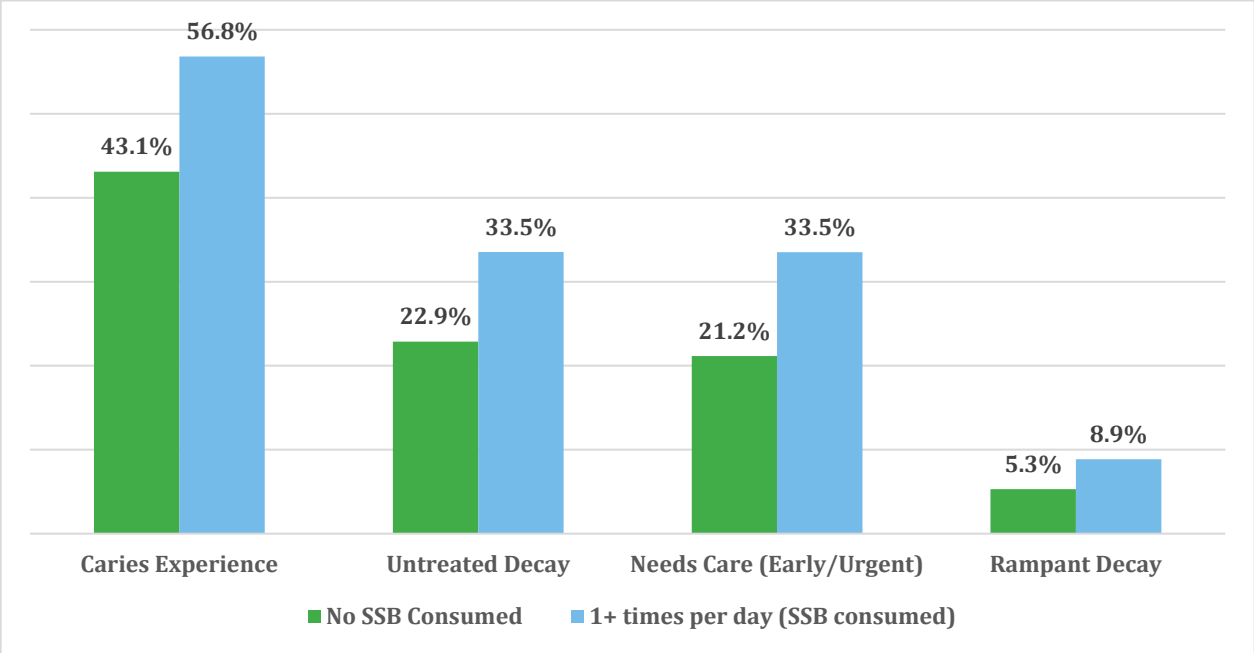
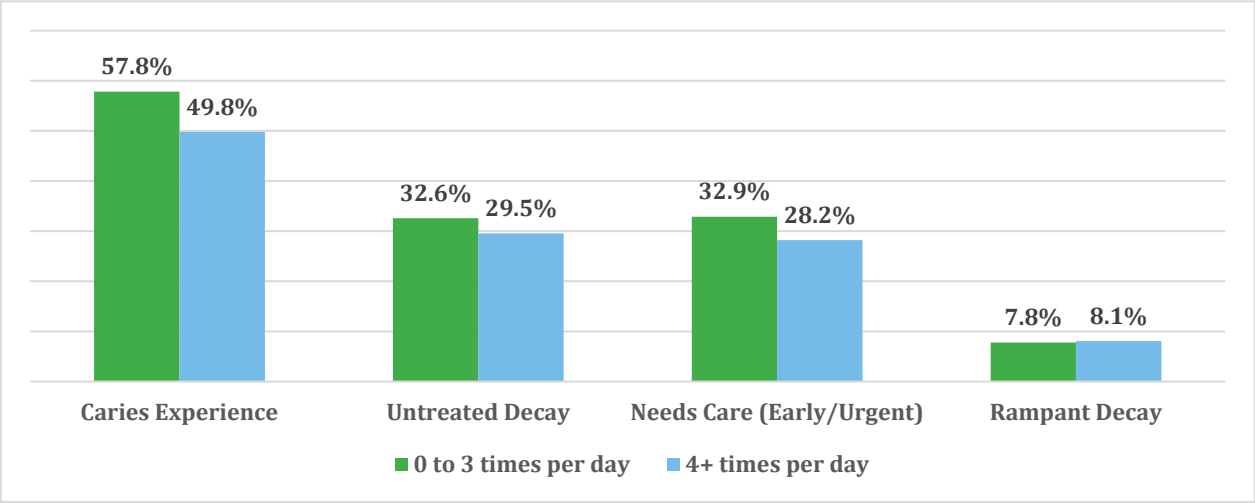


Figure 14 shows data for parent/guardian reports of their child's frequency of drinking plain, tap, or non-flavored sparkling water. Children who drank water zero to three times per day had a higher risk for caries experience, untreated caries, and early and urgent treatment. Drinking water four or more times per day had a small effect on decreasing caries experience, untreated caries, and need for early and urgent care.

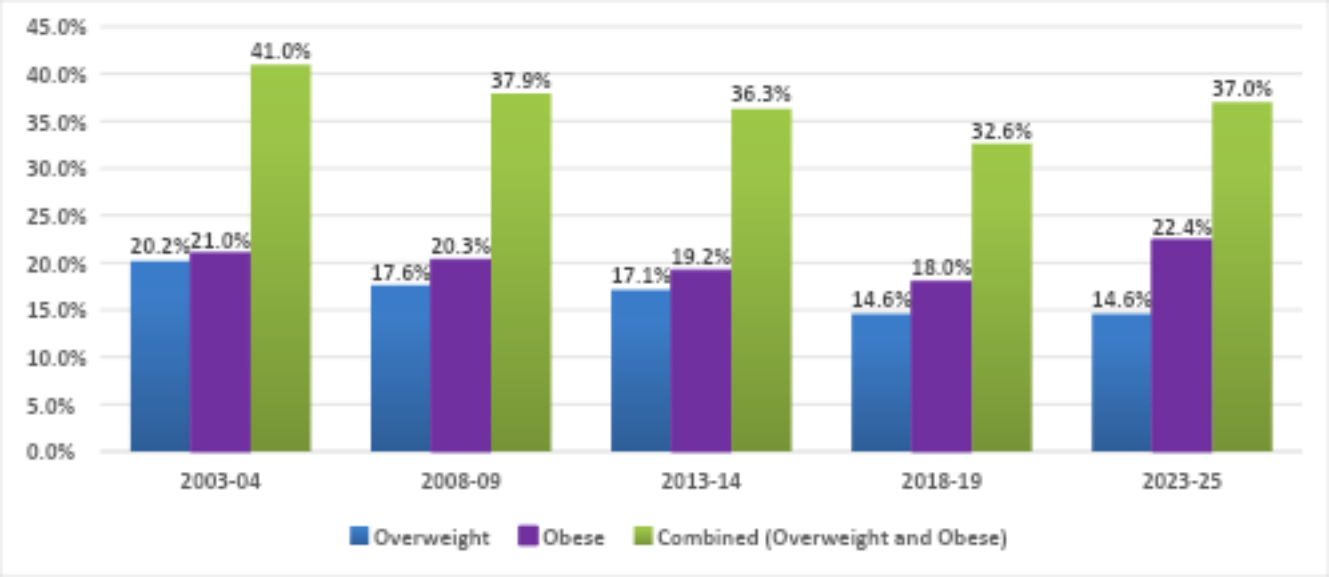
Figure 14. Children Who Drank Higher Levels of Water had Slightly Lower Rates of Untreated Caries and Caries Experience. Drinking water four or more times per day had a mild effect on decreasing caries experience, untreated caries, and need for early and urgent care.



BODY MASS INDEX STATUS

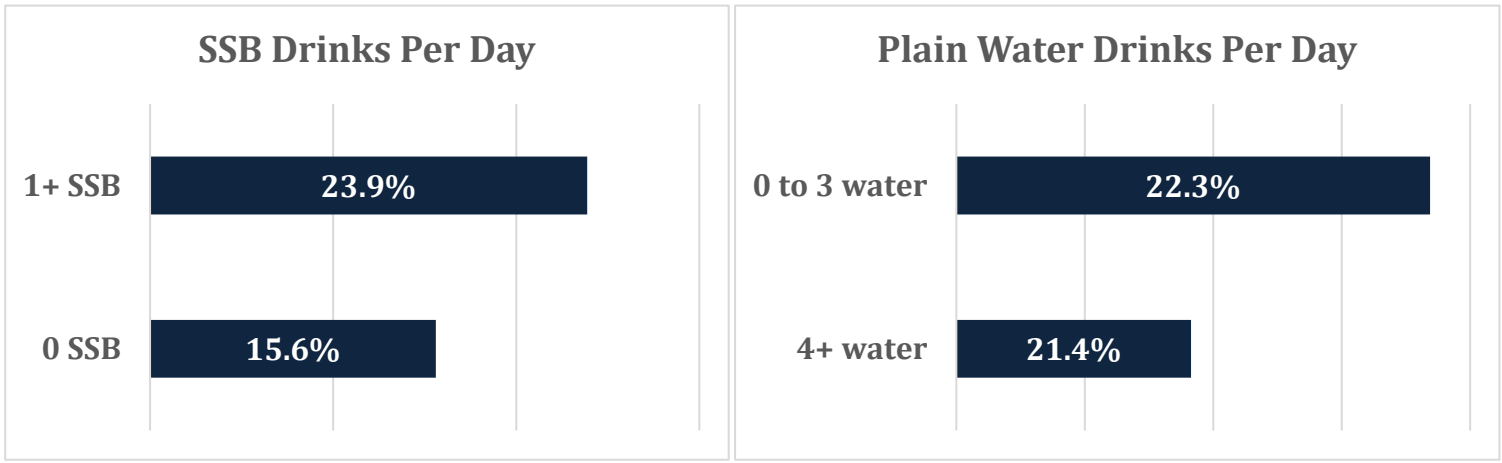
BMI results from the 2023-25 HSHG survey indicated that 22.4% of Illinois third-grade children attending public schools were obese, and over one of three children (37.0%) were either overweight or obese (Figure 15). Illinois third-grade children who were overweight remained stable between 2018-19 and 2023-25.

Figure 15. More than One in Three Children Surveyed Were Overweight or Obese. While the percentage of overweight children did not change between 2018-19 and 2023-25, the percentage of third-grade children who were obese were highest in 2023-25.



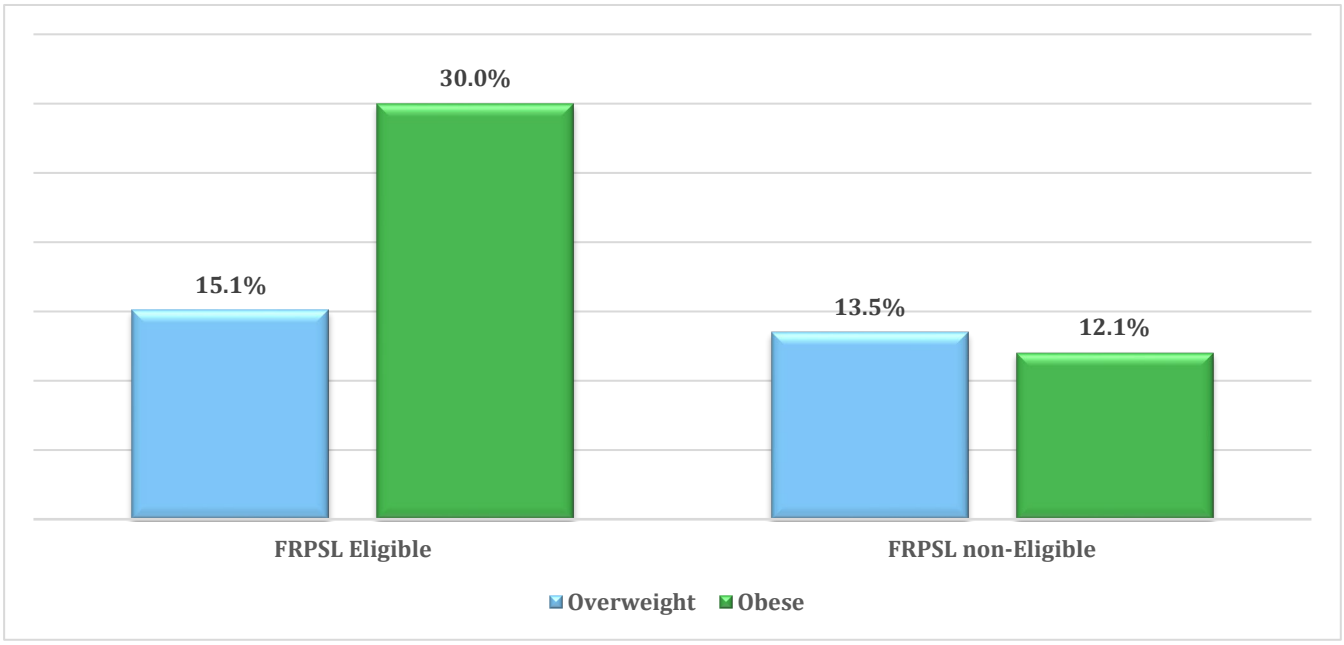
BMI data was analyzed by beverage consumption; number of drinks per day of sugar sweetened beverages (SSB) as well as plain water. Our results indicate a significant difference between children with obesity that indicated consumption of one or more SSBs per day (23.9%, 95% CI (21.5%-26.3%) vs. those that indicated no consumption of SSB (15.6%, 95% CI (12.4%-18.8%). Additional analysis was conducted among third grade children based on the number of times per day plain water is consumed. Although children with a higher daily consumption of plain water, 4 or more times, had a lower percentage with obesity than children indicting zero to three times per day; 21.4% and 22.3% respectively, this finding was not significant (see Figure 16).

Figure 16: Percent of third grade children with obesity, by number of drinks per day (SSB and Plain Water)



When BMI data are examined by FRPSL eligibility (Figure 17), the disparity is stark. The largest disparity is seen in the obesity measure, with 30.0% of FRPSL eligible children being obese compared to 12.1% of FRPSL non-eligible children. When obesity and overweight categories are combined, 45.1% of FRPSL eligible children were

Figure 17. Children who Live in Low-Income Households are at Increased Risk for Overweight and Obesity.



overweight or obese, as compared to 25.6% of FRPSL non-eligible children. Although the overall combined rate of obesity and overweight has been trending down over the last 15 years from a high of 41.0% in 2003-04, it remains a concern that the 2023-25 percentage is back on an upward trajectory and that the percentage of children who are obese is at its highest rate since the 2003-04 survey.

When the BMI data are examined by race/ethnicity, children with the highest burden of overweight or obesity are Hispanic/Latino children (Figure 18), and their rate was higher than recorded in the 2013-14 survey. HSHG 2023-25 findings indicate that children from low-income and minority households are more affected by excessive weight.

Figure 18. Race/Ethnicity is a Strong Factor in BMI Status. Hispanic/Latino children continue to be disproportionately challenged with higher rates of combined overweight and obesity.

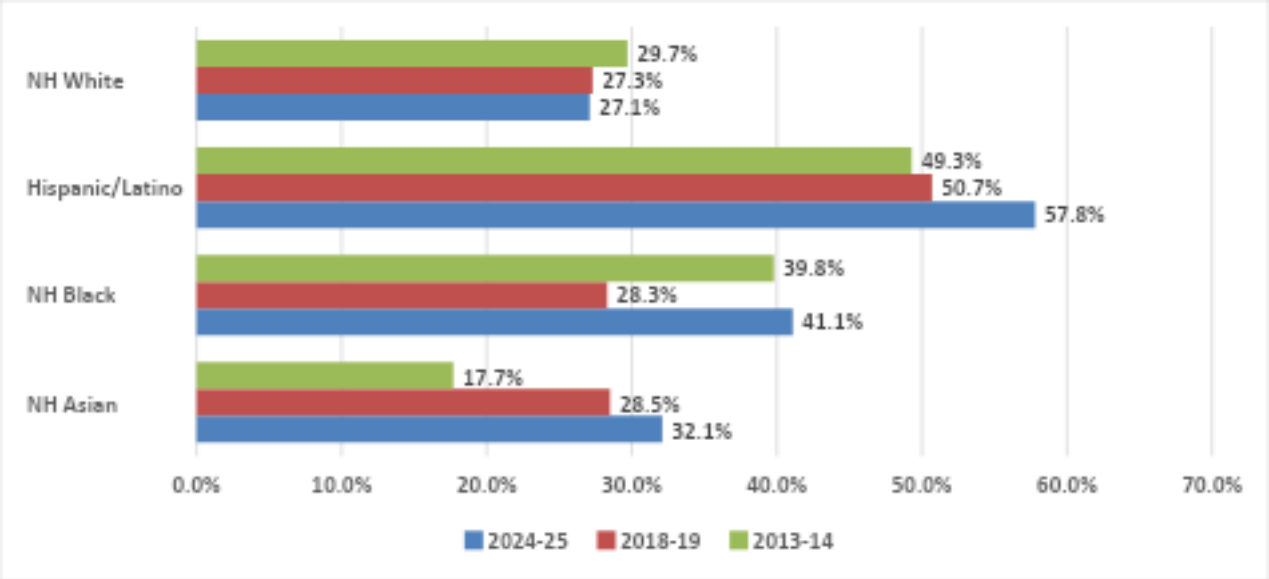
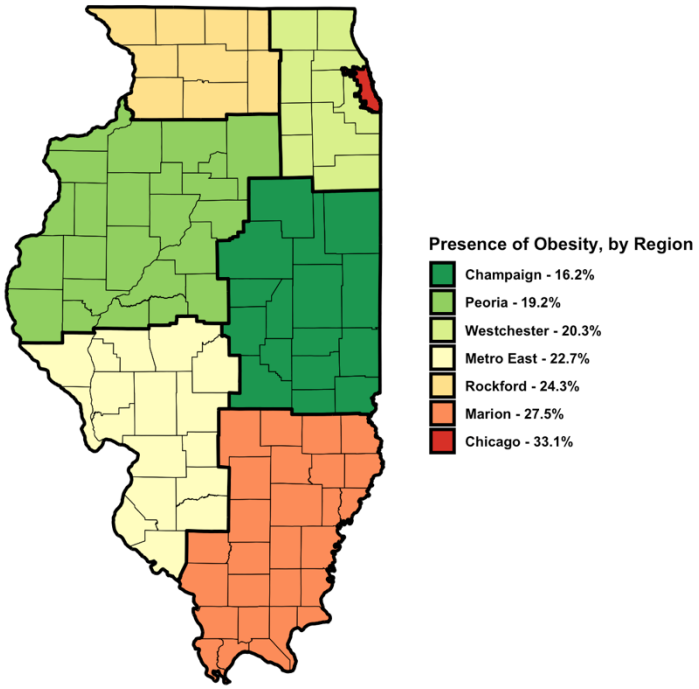


Figure 19 illustrates the wide range in child obesity across Illinois Regions. Children living in the City of Chicago experienced the highest rate of obesity (33.1%, red), and children living in the Champaign Public Health Region had the lowest rate of obesity at 16.2% (dark green). When overweight and obesity rates are combined and examined by Illinois Region, the greatest total burden was also seen in children attending Chicago Public Schools (42.9%).

Figure 19. Percent of Children with Obesity by Region. Children attending Chicago Public Schools experienced the greatest burden.



CONCLUSION

Illinois' Healthy Smiles Healthy Growth 2023-25 survey of third-grade children demonstrated sealant rates that far exceed national targets, showing overall progress in prevention efforts. However, the fact that caries experience and dental decay continue to be significant problems warrants further understanding of this dichotomy. The following factors could potentially undermine the improvement around dental sealant placement: application to chewing surfaces of permanent molars (not all teeth), timing of sealant placement, coverage gaps, sealant quality, high consumption of sugary foods and drinks, limited fluoride exposure, and poor oral hygiene. In addition, low-income and minority children have a lower prevalence of protective dental sealants, a higher burden of oral disease, and have significant unmet treatment needs.

As seen in this report, dental caries disproportionately impacts certain population groups: those who are socioeconomically disadvantaged, are of racial or ethnic minority populations, or are geographically isolated. These are populations that may have limited access to health education, preventive services, and corrective treatment services.

Illinois' Healthy Smiles Healthy Growth 2023-25 survey of third-grade children reveals that the overall proportion of third graders who are overweight and obese increased in the 2023-25 survey. Minority groups continue to live with higher rates of excessive weight, which will have a compounding impact on their overall health. These findings merit approaches directed to lessen the disparities in overweight and obesity burden seen by race, income, and location of residence.

Lastly, the Illinois' Healthy Smiles Healthy Growth 2023-25 survey of third-grade children provides important information on children's sugar-sweetened beverage (SSB) and water consumption behaviors. Findings suggest a significant negative impact on overall oral health and weight status among children who consume one or more SSBs per day as compared to children with no daily consumption. It is important to build on this knowledge in future surveys and to act on these early findings by expanding access to plain water and promoting its consumption in school settings throughout the school day. In addition, utilizing these findings to help inform upstream strategic policy, systems, and environmental changes is a critical step in addressing oral health, obesity, and other health-related conditions.

Challenges with improving children's health and timely access to health services are multifactorial and complex public health issues. Working with an enhanced focus on high risk populations, we can direct data-

driven efforts and resources to groups, communities, and regions of Illinois to improve health and overcome disparities. Widespread efforts in education (self-care, self-action, and understanding of disease processes), health promotion (foundation of health and health behaviors), and access to professional care (evidence-based prevention and treatment therapies) should be the core of health improvement efforts.

LIMITATIONS

Several limitations should be noted. The survey protocol is minimally invasive and thus did not use dental instrumentation, magnification, or radiographs, likely resulting in an underestimate of the true burden of untreated decay and caries experience when compared to findings from a comprehensive clinical examination. The survey used trained calibrated screeners that followed BSS protocols and indicator definitions; however, there may have been differences in clinical judgment that resulted in differences in coding.

School sampling methods were maintained to reflect Illinois demographics. However, a two-year sampling interval was necessary in the 2023-25 HSHG survey year(s) due to under-sampling in the initial sampling interval (2023-24). As such, an additional sampling interval was completed in the 2024-25 school year. Even so, comparisons to the prior years should be used with caution due to the low response rates at the child level, and the estimates presented may not be fully representative of Illinois' third-grade population. In addition, the data are limited as the results presented here are weighted population estimates rather than raw numbers from the sampled children. Point estimates may differ between HSHG 2023-25 and previous surveys due to sampling error/variation. Lastly, responses from the patient questionnaire (e.g., beverage consumption, BMI, etc.) were reported by the parent of the child being surveyed and is subject to recall bias and may be underreported due to perceptions of appropriateness by the parent or caregiver.

RECOMMENDATIONS

The following are recommendations based on the findings in this report:

1. By the time a child reaches third grade in Illinois, over 1 in 2 has a history of dental caries (caries experience). Preventative treatments like fluoride varnish and dental sealants, coupled with health promotion and prevention strategies (consistent drinking of optimally fluoridated water, diet, at-home oral hygiene, self-care programs, etc.) can decrease the incidence of caries and modify the course of the disease. These strategies can be implemented across healthcare settings and further reinforced in community settings (e.g., school, church, food markets/grocery stores). These efforts need to be multi-faceted and widespread to educate parents and families and to reach children as early as possible.
    - Examine national data and research reports on effectiveness of sealing primary molar teeth and the impact of the intervention on caries experience in school age children.

2. Access to early education and prevention programs needs to be strongly coupled with access to disease-treating programs. Placing dental sealants and fluoride varnish alone is not adequate when the adjacent tooth's disease status is also not assessed and/or addressed. It is important to build treatment capacity that ensures timely access for children to disease treatments (National Association of Community Health Centers, 2024).

   Treatment capacity can include but is not limited to the following:

   a) **Infrastructure Investment:** develop systems, relationships, and resources that support an enhanced and integrated public health system with existing healthcare and community networks.
   b) **Workforce Expansion:** implement policies and strategies that support training and securing professionals engaged in prevention education and messaging (e.g., community health workers, case managers, medical providers) and provide incentives for dental professionals, such as Public Health Dental Hygienists, to work in underserved areas.
   c) **System Integration**: integrate oral health services with behavioral health, primary care, and other key settings that serve young children so that early and timely guidance and services can be rendered.

3. Since it was first measured in 2003-04, progress has been made in decreasing the dental sealant disparity gap by race/ethnicity, urban/rural residence, and income status due to continued and strategic expansion of prevention programs and services through traditional dental settings. To further decrease the burden of dental disease, Illinois should continue to build upon the success of existing prevention programs and strive to reach a statewide dental sealant rate of 60% by the next survey period.

4. Concerted primary prevention efforts need to be expanded and integrated within existing systems, such as minimally invasive care, widespread use of fluoride releasing products, sealant of primary molar teeth and expanded use of caries arresting medicaments such as silver diamine fluoride for all ages.

5. Strategies and programs that promote the importance of healthy weight and the relationship between healthy eating, sugar-sweetened beverage consumption, and oral health need to be available, specifically for low-income and minority racial and ethnic groups.

   For example,

   - Enhance the conversations related to nutrition and healthy eating across the healthcare continuum among dentists, pediatricians, primary care providers, counselors, etc.;

   - Offer accessible educational programs (e.g., healthy family weight program, peer support programs, cooking classes); and promote existing community resources such as farmers markets, walking/biking paths, etc.

   - Tailor public health messaging to increase awareness around the intake of sugar-sweetened beverages should be considered. In addition, improved awareness of the benefits and availability of free fluoridated water as an alternate beverage choice is critical. This has the potential to improve oral health measures, as well as improve nutrition and weight status among Illinois third-grade children.

In conclusion, school administrators at each 2023-2025 HSHG participating school should use the individualized school report as a call to action to improve the health and well-being of their student population. By recognizing, understanding and acting on the healthcare needs of their student body, these communities can directly support student health and academic outcomes.

Surveillance activities, such as HSHG 2023-2025, aim to inform professionals, the public, and policymakers about instituting targeted policy, programmatic improvements, and expansions that address important health issues. The data presented here should help state, local, public, and private partners formulate programmatic and policy strategies to address the healthcare needs of all Illinois children.

APPENDIX A
ATTACHMENT 1: HSHG 2023-2025 SURVEY CONSENT AND QUESTIONNAIRE

Please complete this Smile Survey form and return it to your child's teacher. Thank you.

Child's Name: _____

- ❑ YES, I give permission for my child to have their teeth checked and height & weight taken.
- ❑ No, I do not give permission for my child to have their teeth checked and height & weight taken.

Signature of Parent or Guardian: _____ Date: _____

Child's Date of Birth: _____/_____/_____ Child's Gender: ❑ Female ❑ Male ❑ Non-binary/Other

Child's Race (Please check one):

❑ Black / African American – non-Hispanic	❑ Native Hawaiian / Pacific Islander	❑ Bi/ multi-racial
❑ White – non-Hispanic	❑ American Indian / Alaska Native	❑ Other_____
❑ Hispanic/Latino	❑ Asian	❑ Prefer not to answer

What is the primary language spoken at home? _____

Is your child eligible for the free or reduced-price school lunch program? (Select one) ❑ Yes ❑ No

Please answer the following questions. Your answers will remain private and will not be shared. *These questions are optional. You may answer all, any, or none of them.* If you do not want to answer the questions, you may still permit us to check your child's teeth.

1. Which of the following types of dental insurance is your child covered by? (Check one)
❑ Medicaid ❑ Employer ❑ Direct purchase ❑ Other ❑ None

2. How would you describe the condition of your child's teeth? (Check one)
❑ Excellent ❑ Very good ❑ Good ❑ Fair ❑ Poor

3. During the past 12 months, did your child see a dentist for any kind of dental care, including check-ups, dental cleanings, X-rays, or filling cavities? (Check one) ❑ Yes ❑ No

4. During the past 12 months, was there any time when your child NEEDED dental care (including check-ups) but didn't get it because you
   a. could not afford it ❑ Yes ❑ No
   b. could not get an appointment ❑ Yes ❑ No
   c. could not get to the dental office ❑ Yes ❑ No
   d. are afraid or do not like dentists ❑ Yes ❑ No
   e. could not take time off from work ❑ Yes ❑ No
   f. could not find a clinic that spoke your language ❑ Yes ❑ No

5. During the past 12 months, has your child had frequent or chronic difficulty with any of the following? (Check one)
   a. Toothaches ❑ Yes ❑ No ❑ Don't know
   b. Bleeding gums ❑ Yes ❑ No ❑ Don't know
   c. Decayed teeth or cavities ❑ Yes ❑ No ❑ Don't know
   d. Received care for a dental problem in a hospital emergency room ❑ Yes ❑ No ❑ Don't know

6. On average, how many times per day does your child drink plain water? Such as tap, bottled, and unflavored sparkling water. (Check one)
   a. Zero times per day
   b. 1 to 3 times per day
   c. 4 or more times per day
   d. Don't know

7. On average, how many times per day does your child drink a sugar-sweetened beverage? Such as soda/ pop, fruit juices, sweetened tea or Coffee, energy, or other sugary drinks. (Check one)
   a. Zero times per day
   b. 1 to 3 times per day
   c. 4 or more times per day
   d. Don't know

Parents please be aware that under the Protection of Pupils Right Act 20 U.S.C. Section 1232 (c)(1)(A), you have the right to review a copy of the questions asked of or materials that will be used with your students. If you would like to do so, you should contact Mona Van Kanegan at 217-785-4899 or email mona.vankanegan@illinois.gov to obtain a copy of the questions or materials.

Thank you for completing this Smile Survey form and returning it to your child's teacher.

ATTACHMENT 2: HSHG 2023-2025 SCREENING FORM

Oral Health Screening Form 2023-2024

IF THIS DOCUMENT IS FILLED OUT, THIS MEANS THE STUDENT HAS GIVEN VERBAL ASSENT TO BE SCREENED

Screen Date (mm/dd/yy)	School ID	Student Screening ID	Screener's Initials	Assent witness initials
____/____/____	___ ___ ___	___ ___ ___		

Date of Birth (mm/dd/yyyy)	**Gender (circle one)**	**Primary language spoken at home?**
____/____/____	1 - Male 2 - Female 3 – Non-binary/Other	_____

❑ Black / African American – non-Hispanic	❑ Native Hawaiian / Pacific Islander	❑ Bi/ multi-racial
❑ White – non-Hispanic	❑ American Indian / Alaska Native	❑ Other_____
❑ Hispanic/Latino	❑ Asian	❑ Prefer not to answer

Height (nearest ¼ in)_____. ____	**Weight (nearest 10th of a lb)**_____.

Untreated Decay / Cavitated Lesion 0 - No 1 - Yes	At least ½ mm of tooth structure loss at the enamel surface. This applies to pit and fissure as well as those on smooth surfaces. If retained root, assume that the whole tooth was destroyed by caries. Broken or chipped teeth, plus teeth with temporary fillings, are considered sound unless a
Treated Decay 0 - No 1 - Yes	A filling (temporary/permanent, OR a tooth is missing because it was extracted as a result of caries OR missing permanent first molars.

Sealants on Permanent First Molars 0 - No 1 - Yes	

Treatment Urgency Code/Category	
Code	**Criteria**
1 - No obvious problem	No problems observed
2 - Early dental care is needed	Cavitated lesion without accompanying signs of symptoms. Suspicious white or red soft tissue areas.
3 - Immediate dental care is needed	Signs or symptoms include pain, infection, or swelling.
Rampant decay 0 - No 1 - Yes	An individual has seven or more teeth with untreated and/or treated decay

Comments:

APPENDIX B: HSHG 2023-2025 TABLES

Table 1. Basic Screening Survey Measures and Definitions for HSHG 2023-2025, Illinois

Basic Screening Survey Measures	Definition
Untreated Dental Caries (Decay)	The presence of dental caries in which the screener can readily observe the breakdown of the enamel surface. Only cavitated lesions with at least ½mm of tooth structure loss were considered untreated decay.
Treated Caries (Decay)	The presence of any type of filling, including a temporary filling. Teeth that were extracted due to dental decay were also included.
Caries Experience	Children with treated decay, untreated decay, or both.
Dental Sealants on Permanent Molars	The presence of at least one sealant on a permanent first molar. The sealant can cover all or part of the pits or fissures or it can be partially lost.
Treatment Need for Dental Care Early Care Immediate Care	Children with no observed problems were classified as having no treatment needs. Children with cavitated lesions without accompanying signs or symptoms were coded as having early dental care needs. Children with signs or symptoms that included pain, infection or swelling were coded as having immediate treatment needs.
Rampant Caries	Children with seven or more teeth with untreated and/or treated decay.
Height	The stature of the child was recorded to the nearest 0.25 inches (rounded up to the nearest quarter).
Weight	Weight measures were recorded to the nearest 10th of a pound (000.0).

Table 2. Body Mass Index (BMI) Categories and Definitions, CDC

BMI Category	Definition
Underweight	BMI Less than the 5th Percentile
Healthy Weight	BMI 5th percentile to less than the 85th percentile
Overweight	BMI 85th percentile to less than the 95th percentile
Obesity	BMI 95th percentile or greater
Severe Obesity	120% of the 95th percentile or greater, or 35 kg/m^2 or greater.

Table 3. Demographic Characteristics of Participating Third-grade Children, HSHG 2023-2025, N=2,010 (Results from the Parent Questionnaire)		
Variable	N	Percent of Sample
Gender		
Male	946	47.1
Female	1,018	50.7
Missing/Unknown	46	2.3
Race/Ethnicity		
American Indian/Alaska Native (non-Hispanic)	9	0.5
Asian (non-Hispanic)	174	8.7
Black/African American (non-Hispanic)	302	15.0
Hispanic/Latino (any race)	438	21.8
Native Hawaiian/Pacific Islander (non-Hispanic)	2	0.1
White (non-Hispanic)	891	44.3
Multi-racial (non-Hispanic)	115	5.7
Another race (non-Hispanic)	8	0.4
Missing/Unknown	71	3.5
Primary Language Spoken		
English or English Plus Another Language	1,525	75.9
Spanish	253	12.6
Another Language	165	8.2
Missing/Unknown	67	3.3
FRPSL Program Eligibility		
Yes	1,001	49.8
No	791	39.4
Missing/Unknown	218	10.9
Dental Insurance		
Medicaid	857	42.6
Employer	859	42.7
Direct Purchase	29	1.4
Other	47	2.3
Missing/Unknown	218	10.9
Condition of Child's Teeth		
Excellent	189	9.4
Very Good	535	26.6
Good	805	40.1
Fair	362	18.0
Poor	41	2.0
Missing/Unknown	78	3.9
Dental Visit in the Last 12 Months		
No	343	17.1
Yes	1,589	79.1
Missing/Unknown	78	3.9
Number of Times per Day Child Drinks Plain Water		
0	22	1.1
1 to 3	859	42.7
4+	1,039	51.7
Missing/Unknown	90	4.5
Number of Times per Day Child Drinks Sugar-Sweetened Beverages		
0	534	26.6
1 to 3	1,250	62.2
4+	85	4.2
Missing/Unknown	141	7.0

*Note: all response categories are included in the table above except for "missing/unknown" values.

For Tables 4-11: Prevalence estimates and 95% Confidence Intervals (CI)s are provided for oral health, BMI, and beverage consumption indicators in the following tables: the percentages have been weighted to be representative of all third-grade children attending public schools in Illinois.

Table 4. Oral Health Status of Illinois' Third-Grade Children, Overall, HSHG 2023-2025

Variable	Weighted Percent (95% CI)
Dental Sealants (n=2,001)	49.1 (45.0-53.2)
Caries (Decay) Experience (n=2,000)	53.5 (49.5-57.6)
Untreated Dental Caries (Decay) (n=2,000)	30.7 (27.0-34.3)
Total Treatment Need (Early and Urgent) (n=2,001)	30.4 (26.7-34.1)
Urgent Dental Care Need (n=2,001)	6.7 (4.9-8.6)
Rampant Caries (Decay) (n=1,986)	8.2 (6.2-10.2)

Table 5. Oral Health and BMI, Illinois Third-Grade Children by Gender, HSHG 2023-2025

Variable	Male Weighted Percent (95% CI)	Female Weighted Percent (95% CI)
Untreated Dental Caries (Decay)	32.5 (28.1-36.9)	28.6 (24.5-32.8)
Caries (Decay) Experience	53.6 (48.5-58.6)	53.1 (48.3-57.8)
Dental Sealants	48.9 (43.2-54.7)	49.4 (44.9-54.0)
Dental Care Need (Early and Urgent)	32.2 (27.7-36.7)	28.4 (24.1-32.6)
Urgent Dental Care Need	6.9 (4.5-9.2)	6.8 (4.5-9.0)
Rampant Caries (Decay)	9.5 (6.8-12.3)	6.8 (4.9-8.8)
Obesity	23.1 (20.4-25.9)	21.8 (19.2-24.4)

Table 5. Oral Health and BMI, Illinois Third-Grade Children by Race/Ethnicity, HSHG 2023-2025

Variable	NH White Weighted Percent (95% CI)	NH Asian Weighted Percent (95% CI)	NH Black Weighted Percent (95% CI)	Hispanic/Latino Weighted Percent (95% CI)
Untreated Dental Caries (Decay)	24.2 (19.1-29.4)	39.6 (29.9-49.2)	37.2 (31.2-43.2)	35.6 (28.8-42.4)
Caries (Decay) Experience	46.0 (40.3-51.7)	63.3 (53.2-73.4)	51.7 (44.7-58.6)	67.1 (60.4-73.8)
Dental Sealants	52.6 (46.8-58.3)	41.0 (30.4-51.6)	47.2 (39.1-55.3)	48.3 (41.3-55.3)
Dental Care Need (Early and Urgent)	24.7 (19.4-30.1)	38.6 (28.7-48.5)	37.4 (29.9-45.0)	34.4 (28.0-40.8)
Urgent Dental Care Need	4.4 (2.4-6.4)	*	10.7 (4.7-16.7)	6.1 (3.9-8.4)
Rampant Caries (Decay)	6.2 (4.2-8.3)	15.1 (8.1-22.0)	10.8 (4.5-17.1)	8.9 (5.4-12.3)
Obesity	14.3 (11.9-16.7)	15.8 (10.2-21.3)	23.5 (18.6-28.4)	42.0 (37.0-46.9)

* Unstable estimate (relative standard error > 30%)

Table 7. Oral Health and BMI, Illinois Third-Grade Children by Sugar-sweetened Beverage (SSB) and Water Consumption (Number of Times Per Day), HSHG 2023-2025

	SUGAR SWEETENED BEVERAGE (SSB) CONSUMPTION				PLAIN WATER CONSUMPTION			
	0 per day		1+ times per day		0 to 3 times per day		4+ times per day	
Variable	Weighted Percent	(95% CI)	Weighted Percent	(95% CI)	Weighted Percent	(95% CI)	Weighted Percent	(95% CI)
Untreated Dental Caries	22.9	(17.2-28.5)	33.5	(29.4-37.7)	32.6	(28.5-36.7)	29.5	(24.9-34.2)
Caries Experience	43.1	(36.5-49.7)	56.8	(52.7-60.9)	57.8	(53.4-62.2)	49.8	(44.8-54.8)
Dental Sealant	53.2	(47.6-58.9)	47.9	(43.0-52.8)	47.4	(42.2-52.6)	50.8	(46.0-55.6)
Dental Care Need (Early and Urgent)	21.2	(15.7-26.6)	33.5	(29.4-37.6)	32.9	(28.6-37.2)	28.2	(23.7-32.7)
Urgent Dental Care Need	2.7	(0.8-4.7)	7.6	(5.5-9.7)	7.2	(4.8-9.6)	5.6	(3.6-7.6)
Rampant Caries	5.3	(3.0-7.7)	8.9	(6.6-11.1)	7.8	(5.5-10.0)	8.1	(5.6-10.6)
Obesity	15.6	(12.4-18.8)	23.9	(21.5-26.3)	22.3	(19.5-25.2)	21.4	(18.8-24.0)

Table 8. Oral Health and BMI, Illinois Third-Grade Children Stratified by Eligibility for Free and Reduced Priced School Lunch (FRPSL) Program, HSHG 2023-2025

Variable	FRPSL Eligible		FRPSL non-Eligible	
	Weighted Percent	(95% CI)	Weighted Percent	(95% CI)
Untreated Dental Caries	38.8	(34.3-43.4)	18.0	(14.4-21.6)
Caries Experience	62.2	(57.9-66.4)	40.6	(35.5-45.7)
Dental Sealant	47.7	(42.4-53.0)	54.0	(48.4-59.7)
Dental Care Need (Early and Urgent)	38.4	(33.7-43.1)	18.0	(14.4-21.6)
Urgent Dental Care Need	9.2	(6.5-11.9)	2.0	(0.8-3.2)
Rampant Caries	10.7	(7.8-13.7)	3.7	(2.1-5.2)
Obesity	30.0	(27.0-33.0)	12.1	(9.7-14.4)

Table 9. Oral Health, Illinois Third-Grade Children Stratified by Schools that had an Oral Health (OH) Prevention Program, HSHG 2023-2025

Variable	With OH Prevention Program		Without OH Prevention Program	
	Weighted Percent	(95% CI)	Weighted Percent	(95% CI)
Untreated Dental Caries	33.6	(28.4-38.7)	28.3	(23.3-33.3)
Caries Experience	55.9	(50.1-61.7)	51.7	(46.0-57.4)
Dental Sealant	50.5	(45.4-55.7)	47.9	(42.0-53.9)
Dental Care Need (Early and Urgent)	33.6	(28.2-39.0)	27.8	(22.9-32.8)
Urgent Dental Care Need	8.3	(5.3-11.4)	5.4	(3.2-7.7)
Rampant Caries	8.9	(5.6-12.1)	7.6	(5.2-10.1)

Table 10. Oral Health, Illinois Third-Grade Children Stratified by IDPH Public Health Region, HSHG 2023-2025

Variable	Chicago Weighted Percent (95% CI)	Westchester Weighted Percent (95% CI)	Rockford Weighted Percent (95% CI)	Peoria Weighted Percent (95% CI)	Champaign Weighted Percent (95% CI)	Metro East Weighted Percent (95% CI)	Marion Weighted Percent (95% CI)	Total Weighted Percent (95% CI)
Untreated Dental Caries	30.6 (21.6-39.5)	28.8 (23.9-33.7)	34.8 (24.2-45.4)	31.1 (13.6-48.6)	35.8 (25.3-46.3)	36.2 (24.8-47.7)	27.9 (17.0-38.9)	30.7 (27.0-34.3)
Caries Experience	53.7 (43.4-64.0)	53.2 (47.5-58.9)	61.7 (53.6-69.8)	53.9 (37.7-70.2)	51.2 (42.7-59.8)	49.2 (38.9-59.5)	60.0 (37.5-82.4)	53.5 (49.5-57.6)
Dental Sealant	51.1 (41.8-60.3)	47.9 (42.9-52.8)	35.2 (13.5-56.8)	48.4 (34.5-62.4)	39.3 (21.2-57.5)	59.7 (43.1-76.3)	66.6 (46.3-86.8)	49.1 (45.0-53.2)
Dental Care Need (Early and Urgent)	31.3 (22.7-39.9)	28.1 (22.9-33.3)	34.8 (24.2-45.4)	31.7 (14.3-49.1)	35.8 (25.3-46.3)	35.3 (24.2-46.4)	26.2 (16.5-36.0)	30.4 (26.7-34.1)
Urgent Dental Care Need	*	6.1 (3.8-8.3)	*	*	*	*	*	6.7 (4.9-8.6)
Rampant Caries	*	8.7 (6.1-11.4)	*	*	*	*	*	8.2 (6.2-10.2)
Obesity	33.1 (27.2-38.9)	20.3 (17.8-22.8)	24.3 (16.2-32.4)	19.2 (11.6-26.8)	16.2 (10.0-22.4)	22.7 (16.5-28.9)	27.5 (18.3-36.7)	22.4 (20.6-24.3)

* Unstable estimate (relative standard error > 30%)

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