EVERY SMILE COUNTS

THE ORAL HEALTH OF CONNECTICUT'S CHILDREN

DECEMBER 2022

MANISHA JUTHANI, MD | COMMISSIONER

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH
OFFICE OF ORAL HEALTH

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ACKNOWLEDGMENTS

Connecticut Department of Public Health, Office of Oral Health

Elizabeth J. Conklin, MPH
Health Program Supervisor

Maryanne Goss, MA
Health Program Associate

Lisa Budris, MS, MPH
Epidemiologist 3

Chantelle R. Archer, MPH
Health Program Assistant 2

Carmen Hufcut, CDA, RDH, MSDH
Health Program Assistant 2

Connecticut State Department of Education

John D. Frassinelli
Division Director

Ajit Gopalakrishnan
Chief Performance Officer

Association of State and Territorial Dental Directors

Kathy Phipps, DrPH
Data and Oral Health Surveillance Coordinator

Connecticut Oral Health Initiative, Inc.

Pareesa Charmchi Goodwin, MPH
Former Executive Director

Mary Moran Boudreau, RDH, MBA
Project Coordinator and Trainer

Steve Eppler-Epstein, JD
Interim Executive Director

Gary Turco, MS
Community Engagement Specialist

Sandra Kaye Baker
Office Manager

Samira Abdelrehim
Project Analyst

Megna Senthilnathan
Project Analyst

Christian Kallfelz
General Operations

Screeners (Registered Dental Hygienists)

Celeste Baranowski, RDH
Deanna Broderick, RDH
Rebeca Collado, RDH
Linda Conti, RDH
Kim Hutton, RDH
Robin Knowles, RDH
Diane Labich, RDH
Susan Marchinetti, RDH
Mary Ellen McLoughlin, RDH
Kristin Natali, RDH
Jeanette Riquier, RDH
Jeannie Schnakenberger, RDH
Janine Tighe, RDH

Data Entry Assistants

Linda Conti, RDH
Grace Hetzler
Courtney Johnson
Anne Lillquist
Ginny Murray
Kristin Natali, RDH
Toni Parlanti, RDH
Amber Sagan
Brooke Avery

Tunxis Community College School of Dental Hygiene

Professor Rachel Green, RDH
Angelica Marie Baca, SDH
Samantha Banaszek, SDH
Melissa Bednaz, SDH
Doruntina Berisha, SDH
Corey Buchas, SDH
Margaret Cowen, SDH
Lina Dao, SDH
Emily DeLorenzo, SDH
Madeline Falcetti, SDH
Kelsey Green, SDH
Lindsey Henry, SDH
Elizabeth Lacombe, SDH
Karalyn Mancini, SDH
Briana Mendez, SDH
Tylor Paris, SDH
Tippawan Wongkaew, SDH

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DEFINITION OF TERMS

Dental Caries (or Dental Decay)
Caries is a dental disease process that can result in dental decay (cavity). When left untreated, dental decay can lead to pain, infection, and swelling (abscess).

Dental Decay Experience
The presence of an untreated cavity, a filled tooth or a tooth that is missing because it was extracted due to dental decay. High rates of dental decay experience suggest missed opportunities for preventing dental decay at the population level.

Dental Sealants
Transparent or opaque plastic coatings placed on the top of permanent molar (back) teeth to help prevent dental decay. It is best applied on first molars during first and second grade and on second molars during sixth or seventh grade.

Early Childhood Caries
Presence of decay, fillings, or missing teeth due to dental caries in the baby teeth of children under six years of age. It can be due to the use of baby bottles continuously for nursing, bacterial saliva contamination from mother or caregiver, and/or frequent ingestion of sugar and starches.

Rampant Dental Decay
Presence of five or more teeth that have untreated dental decay, filled or prematurely missing due to caries. Represents high severity of dental decay and suggests low levels of both disease prevention and access to dental care.

Untreated Dental Decay
A cavity or hole in the tooth that is at least ½ mm in size, with a brown to dark-brown color. Suggests difficulty in accessing preventive and dental care.

Potentially Arrested Decay
Areas of decay on the tooth that have potentially stopped progressing and have become inactive due to treatment with non-invasive treatment such as silver diamine fluoride. Often appears as black areas on the tooth that are smooth and hard to the touch, rather than soft and sticky as seen in progressing cavities. Arrested decay typically does not require a filling.[1]

Urgent Need for Dental Care
Signs or symptoms that include pain, infection, or swelling

Early Dental Care
Caries without accompanying signs or symptoms or individuals with other oral health problems requiring care before their next routine.

Dental Home

Refers to an ongoing relationship between a dentist and a patient, inclusive of all aspects of oral health care delivered in a comprehensive, continuously accessible, coordinated and person or family-centered way.[2]

Demographic indicators:[3] — Race*

- American Indian/Alaskan Native (not Hispanic): A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.
- Asian (not Hispanic): A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
- Black/African American (not Hispanic): A person having origins in any of the black racial groups of Africa.
- Hispanic (any race): A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.
- Native Hawaiian or Other Pacific Islander (not Hispanic): A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- White (not Hispanic): A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Gender*

Female, Male or Missing/Unknown

NSLP Eligibility[4]

Determines whether a student is eligible for free or reduced-price meals or free milk in accordance with the Income Guidelines for the National School Lunch Program. Students from households with incomes at or below 130% of the Federal poverty line can receive a free lunch. Students from households with incomes between 130% and 185% of the Federal poverty line can receive a reduced-price lunch. Students from households with incomes above 185% of the Federal poverty can receive a low cost full-price lunch. Non-adjusted eligibility guidelines were used to determine NSLP status.

**(Developed by the Office of Management and Budget (OMB) and published in the Federal Register on October 30, 1997. More detailed information can be found at the following website: www.whitehouse.gov/omb/fedreg_1997standards.)*

ACRONYMS LIST

ASTDD	Association of State and Territorial Dental Directors
CT DPH	Connecticut Department of Public Health
CSDE	Connecticut State Department of Education
COHI	Connecticut Oral Health Initiative, Inc.
FARM	Free and Reduced Meal Program
FQHCs	Federally Qualified Health Centers
NSLP	National School Lunch Program
SBHC	School-based Health Centers

SECTION 1

EXECUTIVE SUMMARY

***Every Smile Counts 2022* is a survey conducted through the Connecticut Department of Public Health, Office of Oral Health to assess the oral health status of children in Connecticut.** This report follows the 2007, 2012, and 2017 *Every Smile Counts* reports, to inform the development of state policies and programs that ensure Connecticut's children have access to preventative and therapeutic dental care for optimal oral health.

The *2022 Every Smiles Counts* statewide health survey of kindergarten and third grade children is based on a representative sample of elementary schools. More than 4,600 children received dental screenings in 46 schools and 37 school districts. The oral health information collected is organized into nine key findings. Where possible, data from the *Every Smiles Counts 2022* survey is compared to data included in the 2017, 2012 and 2007 *Every Smiles Counts* reports.

More than 4,600 children received dental screenings in 46 schools.

IMPLICATIONS AND NEXT STEPS

Every Smile Counts 2022 provides important information on the oral health status of children in Connecticut, as oral disease can impact speech, eating, self-image, social development, and learning.[5,6] This survey gathers information on children's socioeconomic status and race/ethnicity to detect disparities in children's oral health across the state. This data, in conjunction with previous findings of the *Every Smile Counts* surveys in 2007, 2012 and 2017, helps identify areas for system-level interventions with the goal of improving oral health in children in an equitable manner. The surveys, reported in four-to-five-year intervals, provide a basis for measuring the progress of previously implemented prevention and interventional programs and future actions.

To improve children's oral health in Connecticut, there must be robust private and public-sector participation to develop policies that will facilitate the following:

- Educating policymakers, providers, and consumers about the importance of oral health and its contribution to overall health and well-being.
- Promoting culturally and linguistically appropriate dental care for all children.
- Developing and implementing public policies and programs aimed to reduce racial, ethnic, and socioeconomic disparities in oral health.
- Instilling the concept of a Dental Home[7] for comprehensive, accessible, and coordinated care starting before age one.
- Integrating medical and dental health care.
- Increasing access to and utilization of dental services in school-based, public health, and private settings.
- Increasing consumption of fluoridated water to prevent dental decay.
- Increasing access to and utilization of dental insurance.

Stakeholders must commit to making changes, pursuing funding, collecting data, and measuring progress in order to establish the oral health of Connecticut's children as an integral part of their overall health and well-being. Prioritization of the strategies should be based on impact, feasibility, and support.

KEY FINDINGS

DENTAL DECAY CONTINUES TO BE A PUBLIC HEALTH PROBLEM FOR CONNECTICUT KINDERGARTEN AND THIRD GRADE CHILDREN.

15% of Connecticut's kindergarten and third grade children need dental treatment.

16% of Connecticut's kindergarten and third grade children have untreated decay.

THERE ARE RACE-BASED AND ETHNICITY-BASED DISPARITIES IN LEVELS OF DENTAL DISEASE AMONG CONNECTICUT'S KINDERGARTEN AND THIRD GRADE CHILDREN.

There are socioeconomic-based disparities in levels of dental disease among Connecticut's kindergarten and third grade children.

Race-based and ethnicity-based health disparities continue to exist in rates of dental decay experience among Connecticut's kindergarten and third grade children.

28% OF THIRD GRADE CHILDREN IN CONNECTICUT HAVE PROTECTIVE DENTAL SEALANTS.

Race-based and ethnicity-based disparities continue to exist in rates of Connecticut's kindergarten and third grade children who have dental sealants.

! Connecticut has not met the objectives for either national or state improvement plans for third grade children's dental decay experience, untreated dental decay, or dental sealants.

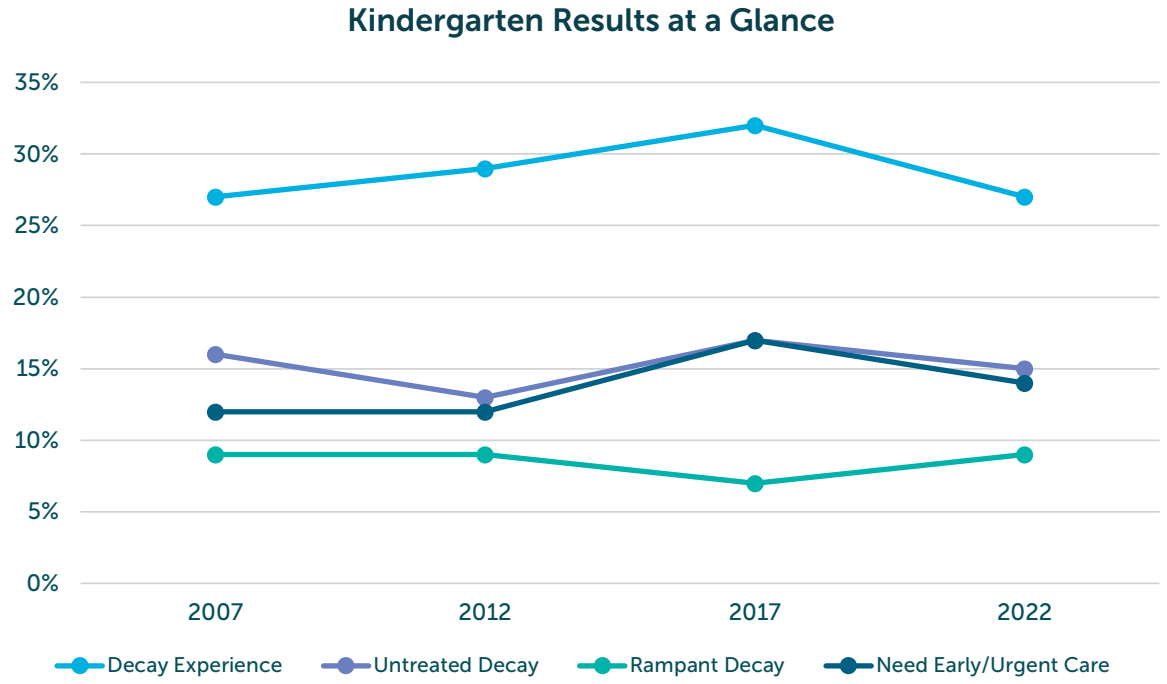
RESULTS AT A GLANCE

Among Connecticut children surveyed in 2022:

KINDERGARTEN

STATUS	FINDINGS
Dental Decay Experience	27% have experienced dental decay, compared to 32% reported in 2017, 29% reported in 2012 and 27% reported in 2007.
Untreated Tooth Decay	15% have untreated dental decay, compared to 17% reported in 2017, 13% reported in 2012 and 16% reported in 2007.
Rampant Tooth Decay	9% have rampant dental decay, compared to 7% reported in 2017, and 9% reported in 2012 and 2007.
Need Early or Urgent Care	14% need early or urgent care, compared to 17% reported in 2017, and 12% in 2012 and 2007.

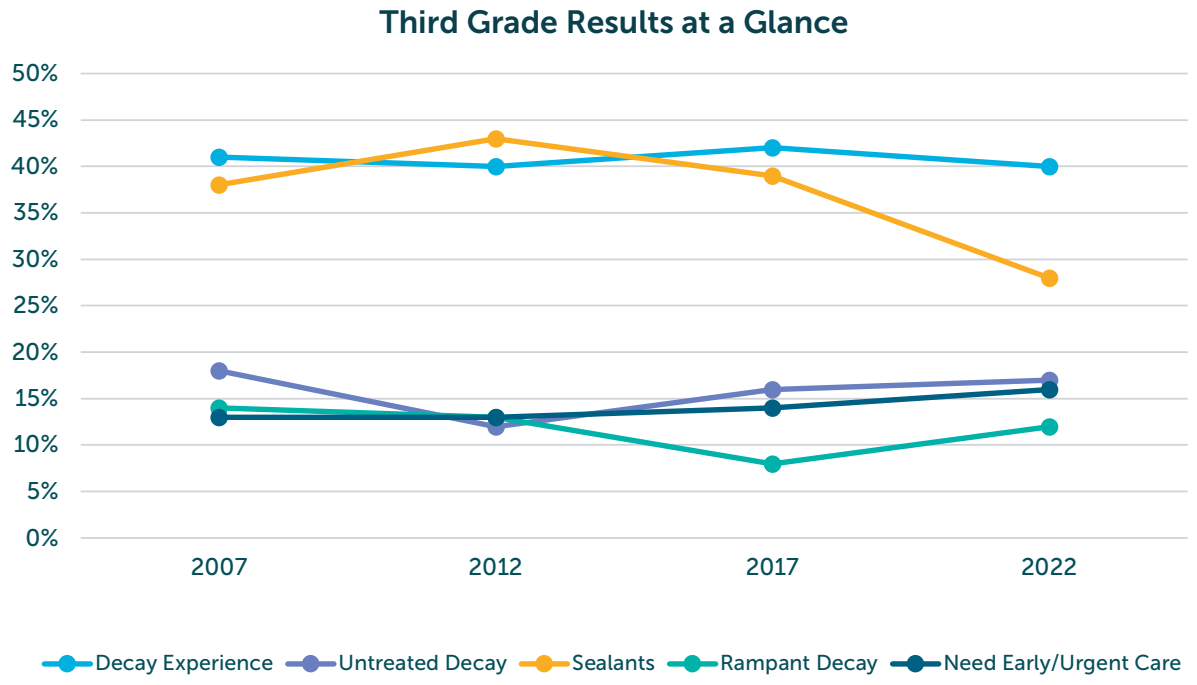
Figure 1A: *Oral Health Status of Connecticut Kindergarten Children, 2007, 2012, 2017, 2022*



THIRD GRADE

STATUS	FINDINGS
Dental Decay Experience	40% have experienced dental decay, compared to 42% reported in 2017, 40% reported in 2012 and 41% reported in 2007.
Untreated Tooth Decay	17% have untreated dental decay, compared to 16% reported in 2017, 12% reported in 2012 and 18% reported in 2007.
Rampant Tooth Decay	12% have rampant dental decay, compared to 8% reported in 2017, 13% reported in 2012 and 14% reported in 2007.
Need Early or Urgent Care	16% need early or urgent care, compared to 14% reported in 2017, and 13% reported in 2012 and 2007.
Dental Sealant	28% have dental sealants, compared to 39% reported in 2017, 43% reported in 2012 and 38% reported in 2007.

Figure 1B: *Oral Health Status of Connecticut Third Grade Children, 2007, 2012, 2017, 2022*



SECTION 2

THE IMPORTANCE OF ORAL HEALTH

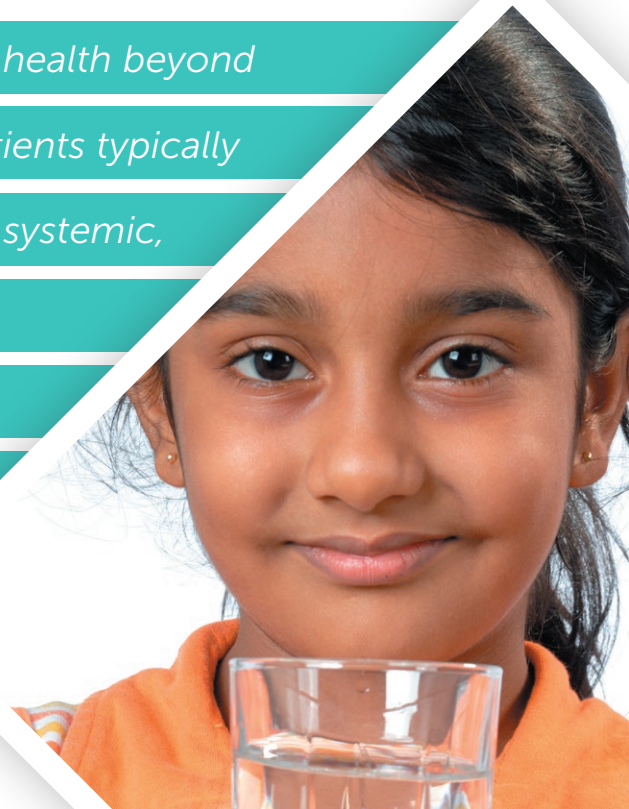
34%

of children in the state of Connecticut are affected by tooth decay.

Dental caries (dental decay) is the most common chronic infectious disease in children and is considered a significant public health challenge. Despite being a preventable disease, caries affect one out of three (34%) children in Connecticut. Dental caries is caused by transmissible oral bacteria that digest sugars from food and drink within the mouth and create acid, which erodes tooth surfaces. There is increasing awareness that oral disease such as dental caries is a multifactorial process, where socioeconomic, behavioral, and psychosocial factors (the social determinants of health) ultimately affect diet and oral health habits, resulting in dental decay.[8] Left untreated, dental decay can lead to problems in overall health and well-being.

"There are several issues that influence oral health beyond the clinical realm in which dentists and their patients typically interact. By considering broad epidemiological, systemic, and policy perspectives and examining the best available data, it can be more clear where oral health is improving and where there is a continued need for concern and action."

—Oral Health in America: Advances and Challenges 2020



RESULTS OF NOT TREATING DENTAL DECAY

SYMPTOMS

- **Pain:** Dental decay can cause constant and agonizing pain.[6,9] Many children may not know that teeth are not supposed to hurt.
- **Infection:** Infected teeth are reservoirs for bacteria that flood the rest of the body, leaving the child prone to many other illnesses, including ear and sinus infections. Antibiotics are often not successful for other infections when dental decay is not treated.[10]

FUNCTIONAL EFFECTS

- **Nutrition Problems:** Chronically painful and infected teeth make chewing and swallowing an uncomfortable and difficult chore.[6] Children with oral health disease often do not get the proper nutrition they need to grow.
- **Influencing other chronic diseases:** Oral diseases can share risk factors with chronic diseases throughout life such as heart disease, hypertension, cancer, strokes, diabetes, and obesity, especially as a result of diet and lifestyle habits.[11]
- **Tooth loss:** Chronic childhood oral health disease often causes children's primary (baby) teeth to break or be removed before their permanent (adult) teeth are ready to take their place.[10]
- **Difficulty with speech:** Tooth pain and missing teeth can make it difficult to pronounce words, which can impact children's ability to communicate.[6]
- **Impact on long-term oral health:** If children are not properly educated on how to take care of their oral health, poor habits can carry into adulthood and can affect the permanent teeth.[11]
- **Missed school days:** Children with infected and painful teeth miss more school days compared to children with healthy teeth,[6] disrupting their educational and social experiences and increasing costs for school districts.

PSYCHOLOGICAL EFFECTS

- **Attention problems:** Children with infected and painful teeth have a difficult time relaxing, sitting still, and paying attention in class.[10]
- **Mood changes:** Children may become irritable or frustrated while experiencing chronic tooth pain.[6]
- **Social development:** Oral health problems are associated with shyness, unhappiness, feelings of worthlessness, avoiding smiling, and reduced friendliness.[6,9]
- **Sleep deprivation:** Children with chronically painful teeth have difficulty getting a good night's rest.[6]
- **Family impact:** The families of children may feel guilty when they are informed of their children's poor oral health status or when their children experience oral pain. They may also experience unexpected financial burden when paying for their children's dental treatment and taking time off work to attend their children's dental appointments.[6,9]

SECTION 2: The Importance of Oral Health

Although the prevalence and severity of dental decay has declined among school-aged children in the United States, disparities are still present in certain populations. **Nationally, dental decay and untreated decay in children are more prevalent and more severe among racial and ethnic minorities and in lower-income households.**[7] As such, it is necessary to develop and implement targeted policies for populations that disproportionately experience dental decay. The American Academy of Pediatric Dentistry encourages oral health professionals and policymakers to formally acknowledge the role that social determinants of health have in producing and perpetuating oral health inequities in children.[12]

The American Dental Association, the American Academy of Pediatric Dentistry, and the Connecticut Department of Public Health (CT DPH) recommend establishing a Dental Home within six months of eruption of the first tooth and no later than 12 months of age. The purpose of early visits to the dentist are to conduct a caries risk assessment and provide parental education for prevention of early childhood caries.[7, 13]

The mouth reflects general health and wellbeing. Untreated dental decay has negative consequences on the overall health of children. It can affect chronic diseases like obesity, reduce self-esteem, impair social development, and impact the ability to speak and eat. Poor oral health can lead to decreases in the social, nutritional, and educational development of children.[5]

By recognizing and understanding the oral health needs of Connecticut's children, corresponding policies can be developed and implemented to ensure that all children receive the oral health care they need.

Effective policies to protect children's oral health should be based upon a few sound principles presented in the *2000 Oral Health in America: A Report of the Surgeon General, which include:*[14]

- Changing perceptions regarding oral health and disease so that oral health becomes an accepted component of general health.
- Accelerating the building of the science and evidence-base and applying science effectively to improve oral health.
- Building an effective health infrastructure that meets the oral health needs of all Americans and integrates oral health effectively into overall health.
- Removing known barriers between people and oral health services.
- Using public-private partnerships to improve the oral health of those who still suffer disproportionately from oral diseases.

The impact of these recommendations was evaluated in a follow up report by the National Institute of Health, *2020 Oral Health in America: Advances and Challenges*[11], which stated that the above recommendations proved to be key in improving national oral health in children over the past 20 years.

The report outlined the following key takeaways,[15] which provide an additional framework to address disparities in children's oral health status and promote the oral health of children in Connecticut.

- In the past 20 years, progress has been made in reducing dental caries, also called tooth decay, but not all children have benefited equally.
- About half of all American children do not receive regular dental care due to social, economic, and geographic obstacles.

- Integrating dental care within family and pediatric medical care settings is improving children's oral health.
- Nearly one in five children have special physical or health care needs. Providers trained in active prevention and management of these children's oral health problems help to support their overall health and quality of life.
- More effective approaches to preventing and treating dental cavities are emerging from a better understanding of the social determinants of health, high-risk behaviors, and caregiver and provider oral health literacy.
- As dental caries become better controlled, other conditions should be addressed, such as dental erosion, which is an increasing cause of tooth destruction in youths.

The following report provides a summary and analysis of the outcomes of the *Every Smile Counts 2022* survey. It outlines survey methodology and limitations, describes the survey results, and provides key strategies and recommendations for improving the oral health of Connecticut's children.

SECTION 3

KEY FINDINGS: THE ORAL HEALTH OF CONNECTICUT'S CHILDREN

4,600

children in kindergarten and third grade were screened.

To increase the awareness of the status of the oral health of Connecticut's children, the Connecticut Department of Public Health's Office of Oral Health contracted with the Connecticut Oral Health Initiative, Inc. to conduct Every Smile Counts 2022, a statewide oral health survey, during the 2021-2022 school year. The focus of the survey was on kindergarten and third grade children enrolled in Connecticut's public elementary schools, where more than 4,600 children in kindergarten and third grade were screened. Detailed information on the design of the survey can be found in the *Survey Methods* section of this report.

Data from *Every Smile Counts 2022* survey is organized into nine Key Findings, which highlight the current oral health of Connecticut's children and disparities in oral health across the state.

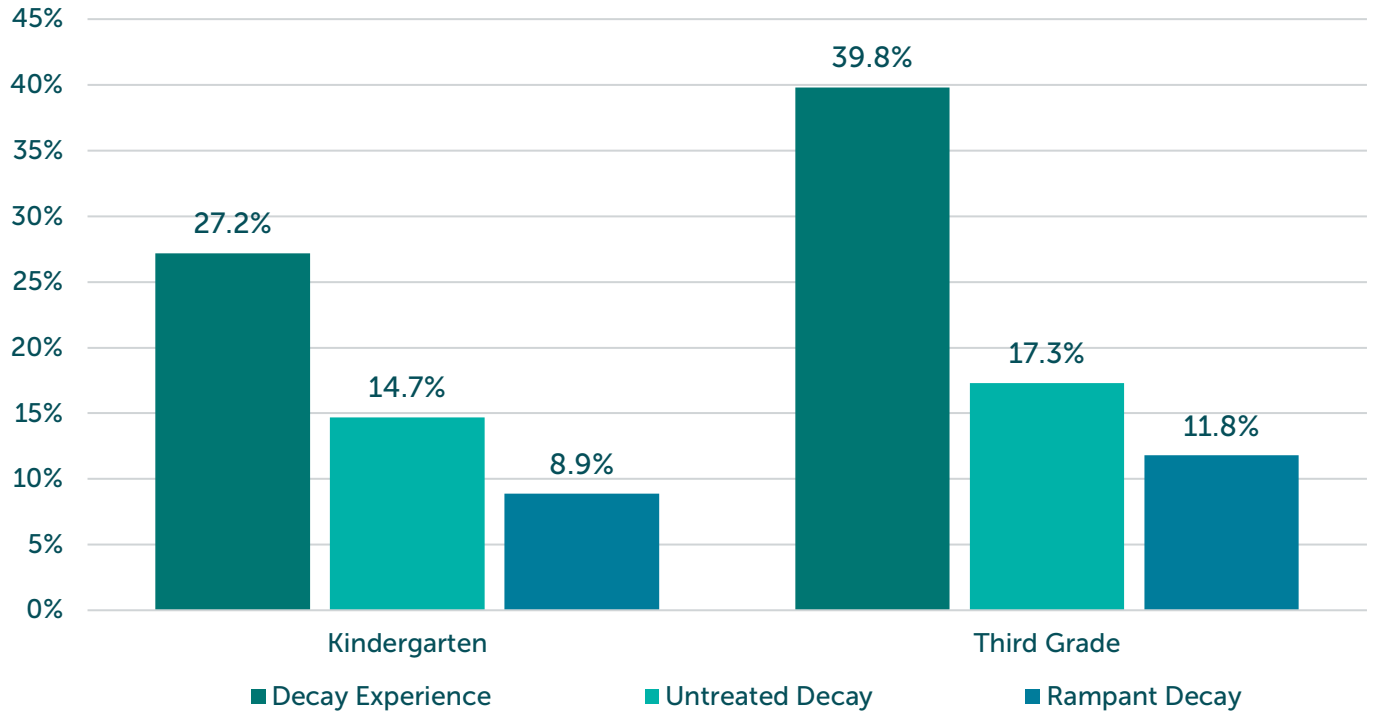
KEY FINDINGS

1. Dental decay continues to be a public health problem for Connecticut's kindergarten and third grade children.
2. Fifteen percent (15%) of Connecticut's kindergarten and third grade children need dental treatment.
3. Sixteen percent (16%) of Connecticut's kindergarten and third grade children have untreated dental decay.
4. There are race-based and ethnicity-based disparities in levels of dental disease among Connecticut's kindergarten and third grade children.
5. There are socioeconomic-based health disparities in levels of dental disease among Connecticut's kindergarten and third grade children.
6. Race-based and ethnicity-based health disparities continue to exist in rates of dental decay experience among Connecticut's kindergarten and third grade children.
7. Twenty-eight percent (28%) of third grade children in Connecticut have dental sealants.
8. Race-based and ethnicity-based disparities continue to exist in the rates of Connecticut children who have dental sealants.
9. Connecticut has not met the objectives for either national or state improvement plans for third grade children's dental decay experience, untreated dental decay or dental sealants.

Data collected on the presence of potentially arrested decay, such as the application of silver diamine fluoride, was too small to provide reportable data for the report. Silver diamine fluoride is an inexpensive and particularly useful method to arrest dental decay in children and in patients with special needs, when performing traditional restorative procedures is deemed difficult.

01 Dental Decay Continues to Be a Public Health Problem for Connecticut's Kindergarten and Third Grade Children.

Figure 2: Percent of Connecticut Children with Dental Decay Experience, Untreated Dental Decay and Rampant Dental Decay by Grade, 2022



Dental decay occurs in the primary (baby) and permanent (adult) teeth across the lifespan. Dental decay experience in the past is identified through the observation of fillings, crowns, or teeth that have been extracted due to dental decay. Dental decay experience in the present is identified through the observation of untreated dental decay or cavities.[8] Rampant dental decay is identified as the presence of five or more teeth that have untreated dental decay, restored or prematurely missing due to caries.

In the *Every Smile Counts 2022* survey, about one out of four children in kindergarten and two out of five children in third grade have experienced dental decay. Third grade children have an increased rate of dental decay experience as well as an increased rate of untreated dental decay compared to children in kindergarten.

As seen in Figure 2, approximately 40% of third grade children in Connecticut have experienced dental decay, which is lower than the national average of 59.5%. About 27% of kindergarten children in the state have experienced dental decay, which is lower than the national average of 42.1% for five-year-old children.[16] The prevalence of untreated dental decay among Connecticut's kindergarten children (14.7%) is slightly lower than the national average for five-year-old children, (15%) and the prevalence of untreated dental decay among the State's third grade children (17.3%) is lower than the national average for third graders (19.9%).[16] A greater percentage of the third grade children had rampant dental decay compared to children in kindergarten. Early and sustained prevention efforts are necessary to eradicate oral health disease in Connecticut's children.

02 Fifteen Percent (15%) of Connecticut Kindergarten and Third Grade Children Need Dental Treatment.

Figure 3A: Percent of Connecticut Children Needing Early or Urgent Dental Care by Grade, 2022

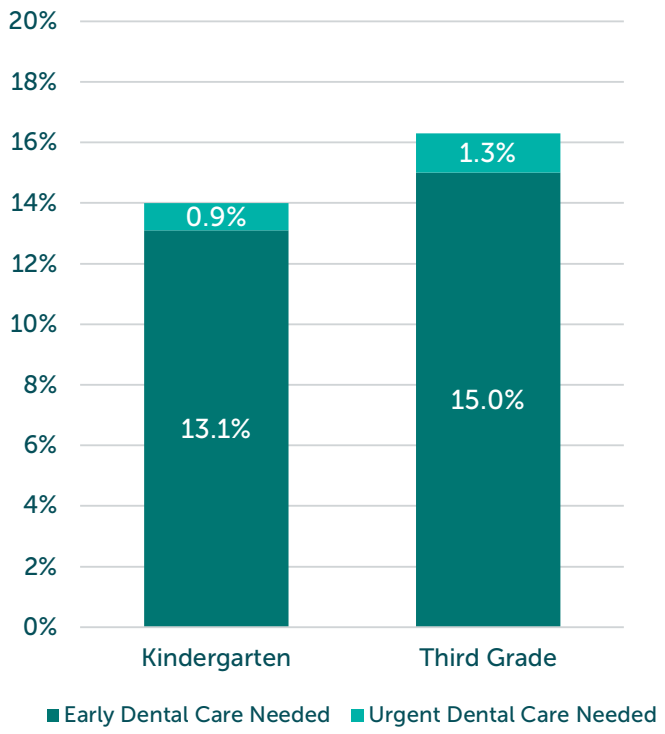
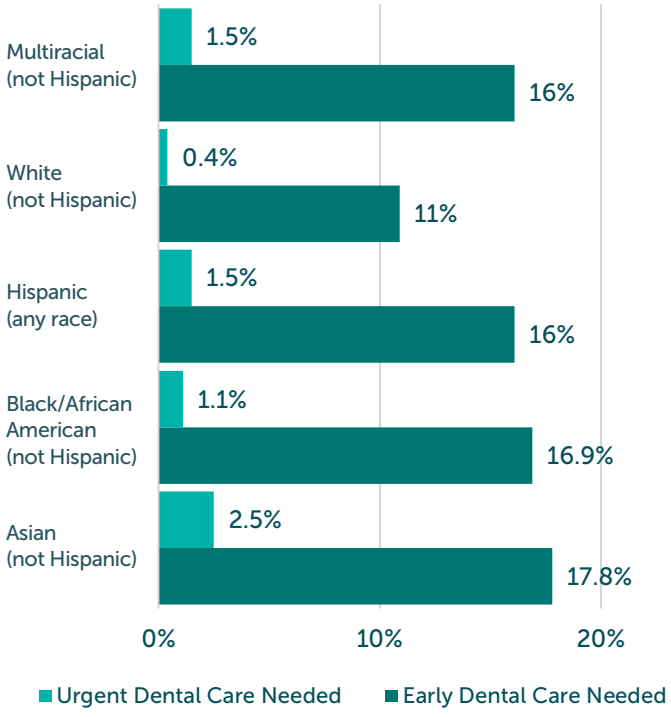


Figure 3B: Percent of Connecticut Children Needing Early or Urgent Dental Care by Race/Ethnicity, 2022



It is recommended that a child with untreated dental decay or a broken filling receive early treatment within several weeks of an oral screening, unless the tooth will soon be lost and replaced by a permanent tooth. If a child has pain or infection due to an oral health problem, they should receive urgent and immediate dental care.

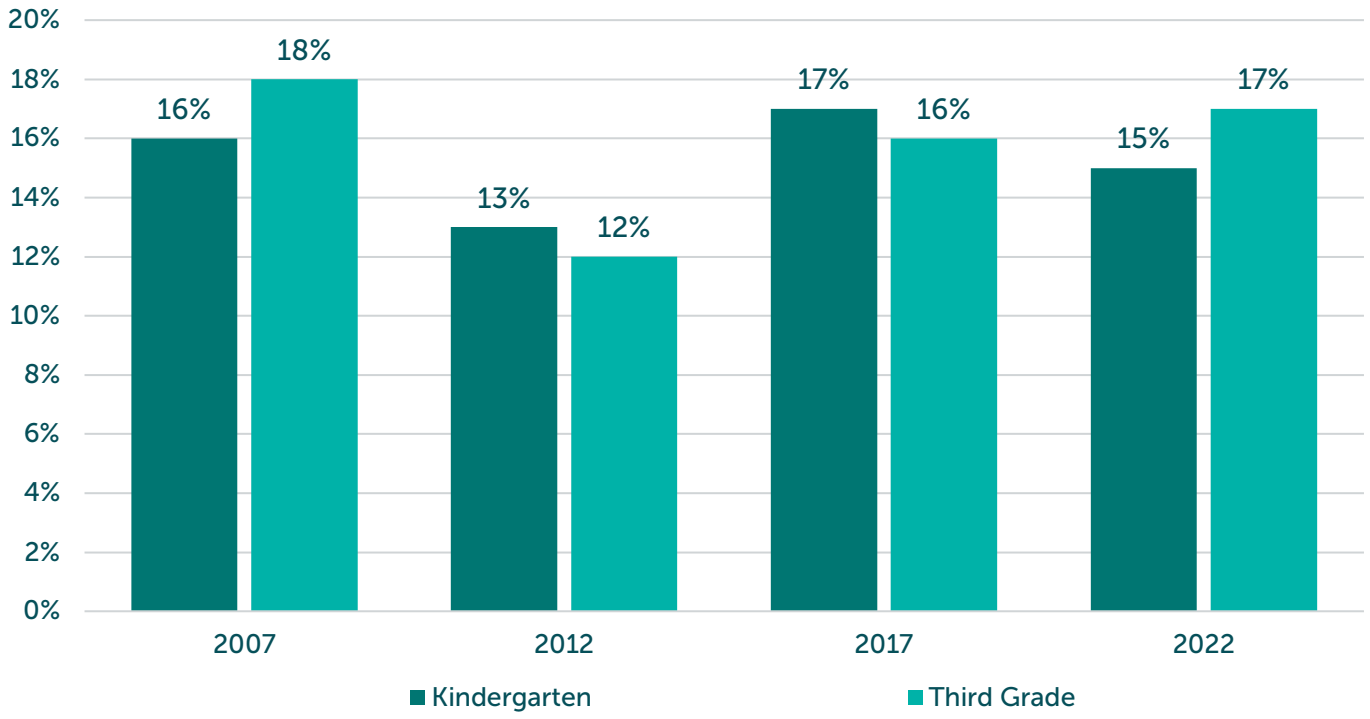
Sixteen percent (16.3%) of third grade children in Connecticut need early or urgent dental care (Figure 3A). Based on race/ethnicity, 20.3% of Asian children needed early or urgent care, 18% of Black children needed early or urgent care, 17.6% of both Hispanic and Multiracial children needed early or urgent care, and 11.3% of White children needed early or urgent care (Figure 3B). The percent of children needing early or urgent care increased from 12.5% in kindergarten and third grade children who are not eligible for participation in the National School Lunch Program to 18.8% in kindergarten and third grade children who do qualify for the program (Table 1.5C).

Please note that diagnostic oral examinations were not performed during the *Every Smile Counts 2022* survey. It can be assumed that some oral issues were missed and that the survey's findings may underestimate the proportion of children needing dental care.

**The Every Smile Counts 2022 survey used baseline eligibility for the National School Lunch Program, not the expanded standards that were temporarily adopted during the COVID-19 pandemic.*

03 Sixteen Percent (16%) of Connecticut Kindergarten and Third Grade Children Have Untreated Dental Decay

Figure 4: Percent of Connecticut Children with Untreated Dental Decay by Grade and Year, 2007, 2012, 2017, and 2022

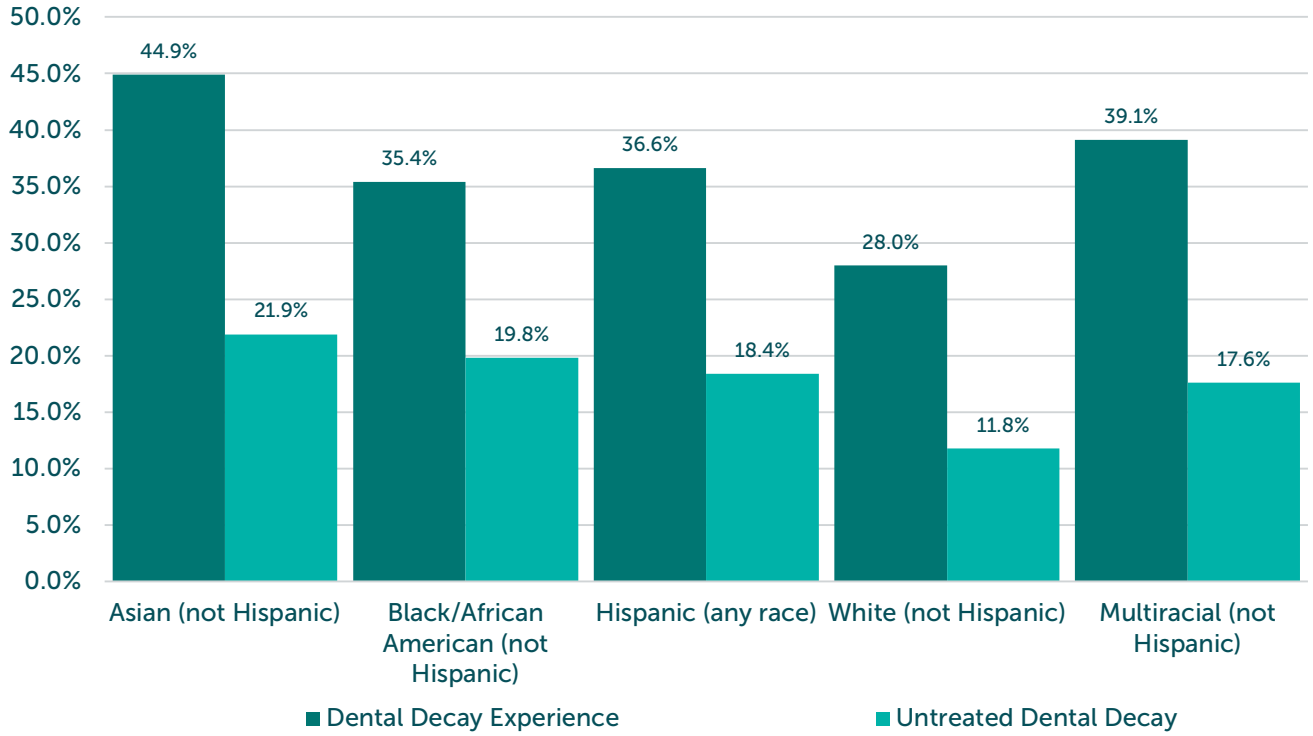


In 2022, 15% of kindergarten children in Connecticut have untreated dental decay, lower than the average of 17% in 2017 (Figure 4). However, almost one in five third grade children in the state have untreated dental decay, slightly higher than the average in 2017. The rates of untreated dental decay for both kindergarten children and third grade children in Connecticut have increased significantly within the past 10 years, and these percentages do not meet the national or statewide targets. Healthy People 2030 set a target to reduce the proportion of children and adolescents with untreated dental decay to 10.2%. The Connecticut Oral Health Improvement Plan's target is to reduce the proportion of third grade children with untreated dental decay to 14%. The rise of untreated dental decay rates among Connecticut's children could be a result of multiple factors. One factor could be the COVID-19 pandemic, during which many dental offices, school-based dental clinics, and community health dental clinics closed temporarily. Additional factors could include changes to social determinants of health, such as household income and food insecurity.

In 2008, there was a significant increase in provider reimbursement rates and a decrease in administrative burden for dental providers resulting in Connecticut experiencing a significant increase in dental provider participation, and subsequently, an increase in access and dental utilization among children covered by HUSKY (Medicaid and CHIP). The reimbursement rate remained level until a decrease of 2% in 2016. The number of children experiencing dental decay increased after that point as evidenced in this survey. As of 2018, CT DPH funds 27 school-based health centers, which provide children with dental care.[17] These services may help to counter the effects of the pandemic and inequities caused by social determinants of health.

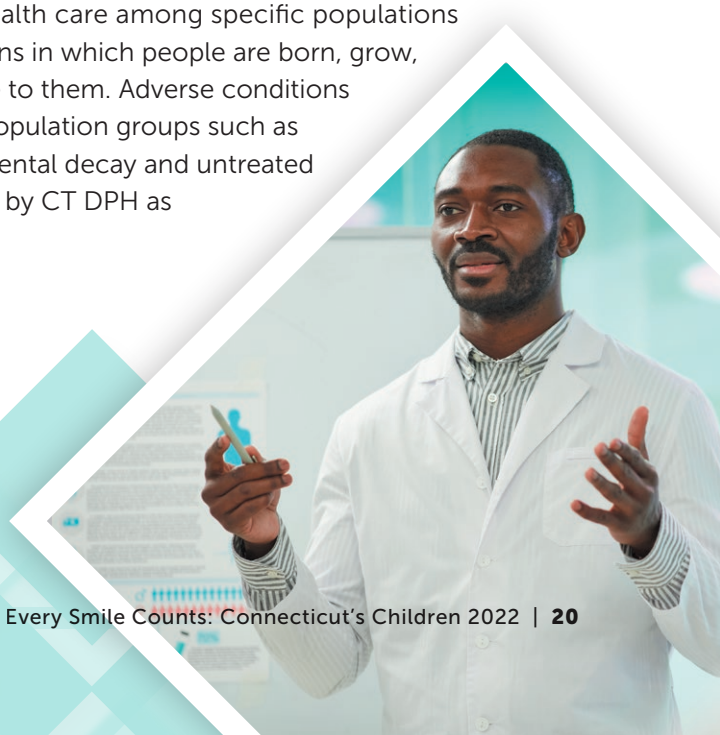
04 There Are Race-Based and Ethnicity-Based Disparities in Levels of Dental Disease Among Connecticut's Kindergarten and Third Grade Children

Figure 5: Percent of Connecticut Kindergarten and Third Grade Children with Dental Decay Experience and Untreated Dental Decay by Race/Ethnicity, 2022



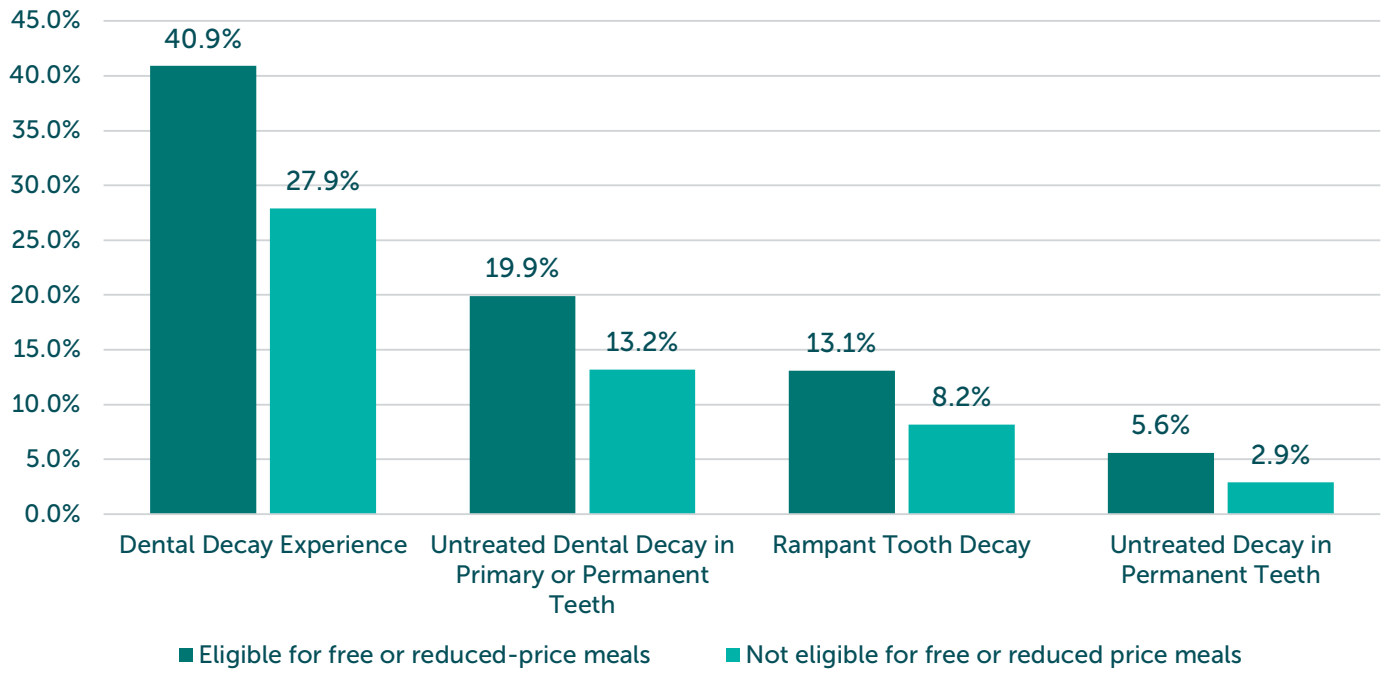
In 2022, White children were the least likely to have dental decay experience, followed by Black, Hispanic, and Multiracial children, with Asian children the most likely to have dental decay experience (Figure 5).

The disparities in dental decay and untreated dental decay experiences can be attributed to social determinants of health, including unequal access to quality health care among specific populations in Connecticut.[18] Social determinants of health are the conditions in which people are born, grow, live, work, age and die, and include the health systems available to them. Adverse conditions result in higher levels of disease and poor health outcomes.[19] Population groups such as Hispanic and Asian children who experienced higher levels of dental decay and untreated dental decay are among the vulnerable populations considered by CT DPH as "priority" populations.[18]



05 There Are Socioeconomic-Based Health Disparities in Levels of Dental Disease among Connecticut's Kindergarten and Third Grade Children

Figure 6: Percent of Connecticut Kindergarten and Third Grade Children with Decay Experience and Untreated Decay by National School Lunch Program Status, 2022

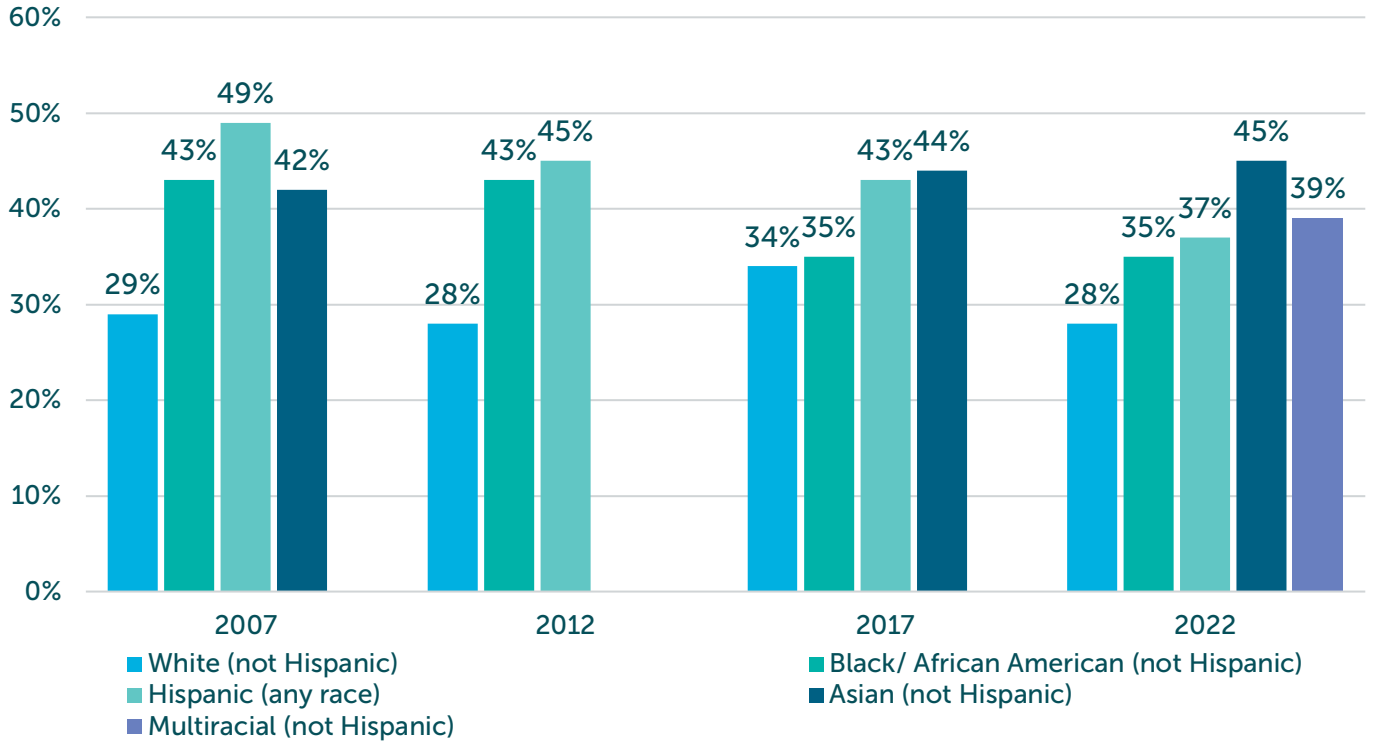


The National School Lunch Program (NSLP) is a federally assisted meal program operating in schools to provide nutritionally balanced, low-cost, or free lunches to children each school day.[20] It is used here as an indicator of overall socioeconomic status. In 2022, each child's NSLP participation status was known; while in previous surveys, individual children's NSLP status was unknown.

Among Connecticut's kindergarten and third graders, children from lower income families who qualified for NSLP had a higher prevalence of every category of dental decay. Children who qualified for NSLP participation were 1.5 times more likely to have dental decay experience and untreated dental decay in primary or permanent teeth compared to children who did not qualify. Children who qualified for NSLP participation were 1.6 times more likely to have rampant dental decay compared to children who did not qualify. The greatest disparity was observed when examining untreated dental decay in permanent teeth. Children who qualify for NSLP participation were nearly twice as likely to experience untreated dental decay in permanent teeth compared to children who do not qualify (Figure 6).

06 Race-Based and Ethnicity-Based Health Disparities Continue to Exist in Rates of Dental Decay Experience Among Connecticut's Kindergarten and Third Grade

Figure 7: Percent of Connecticut Kindergarten and Third Grade Children with Dental Decay Experience by Race/Ethnicity, Grade, and Year - 2007, 2012, 2017, and 2022



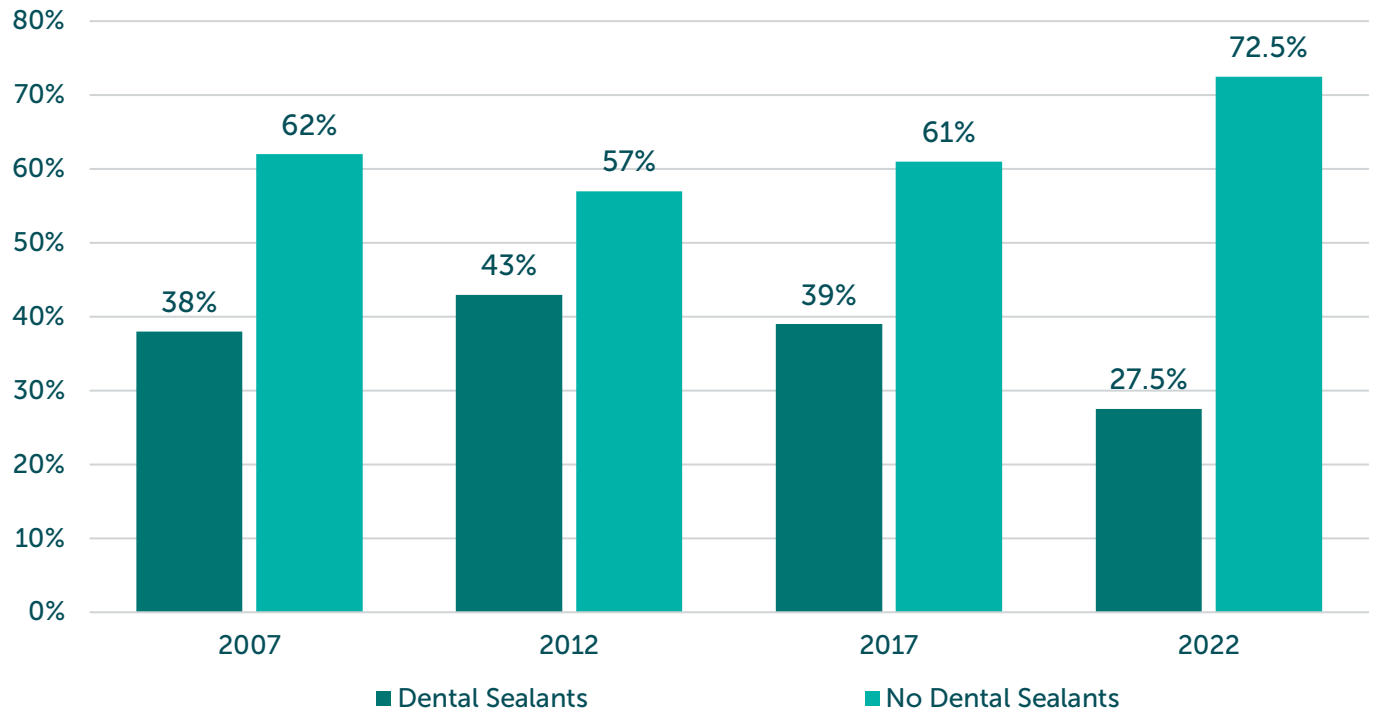
Dental decay experience refers to treated or untreated decay present in primary or permanent teeth. Over one-third of Connecticut's kindergarten and third grade children had dental decay experience. Though children of color have historically had a higher prevalence of dental decay experience when compared to non-Hispanic White children, the 2022 rates of dental decay experience for White, Black, and Hispanic children have largely decreased over a 15-year span (Figure 7).

Asian children have the highest rates of dental decay experience in 2022, followed by Multiracial children. Almost half of Asian children, and two out of every five Multiracial children experienced dental decay in 2022. Efforts to reduce disparities in oral health must address disparities across all groups and for all children of color.

**Note: Data for Asian children in 2012 is not available.*

07 Twenty-Eight Percent of Third Grade Children in Connecticut Have Protective Dental Sealants

Figure 8a: Percent of Connecticut Third Grade Children Who Have Dental Sealants: 2007, 2012, 2017, 2022



Dental sealants, which are thin coatings placed on the chewing surfaces of the back teeth (molars) to prevent cavities, are a well-accepted clinical intervention to prevent dental decay. School-age children (ages 6-11) without sealants have almost three times more cavities in their first molars than those with sealants.[21] Dental health professionals can help with early prevention by using dental sealants, which can prevent 60% of decay for a fraction of the cost of a filling.[22]

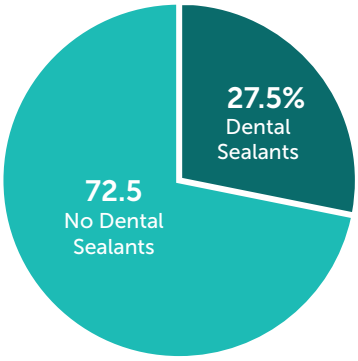


Figure 8b: Percent of Connecticut Third Grade Children Who Have Dental Sealants: 2022

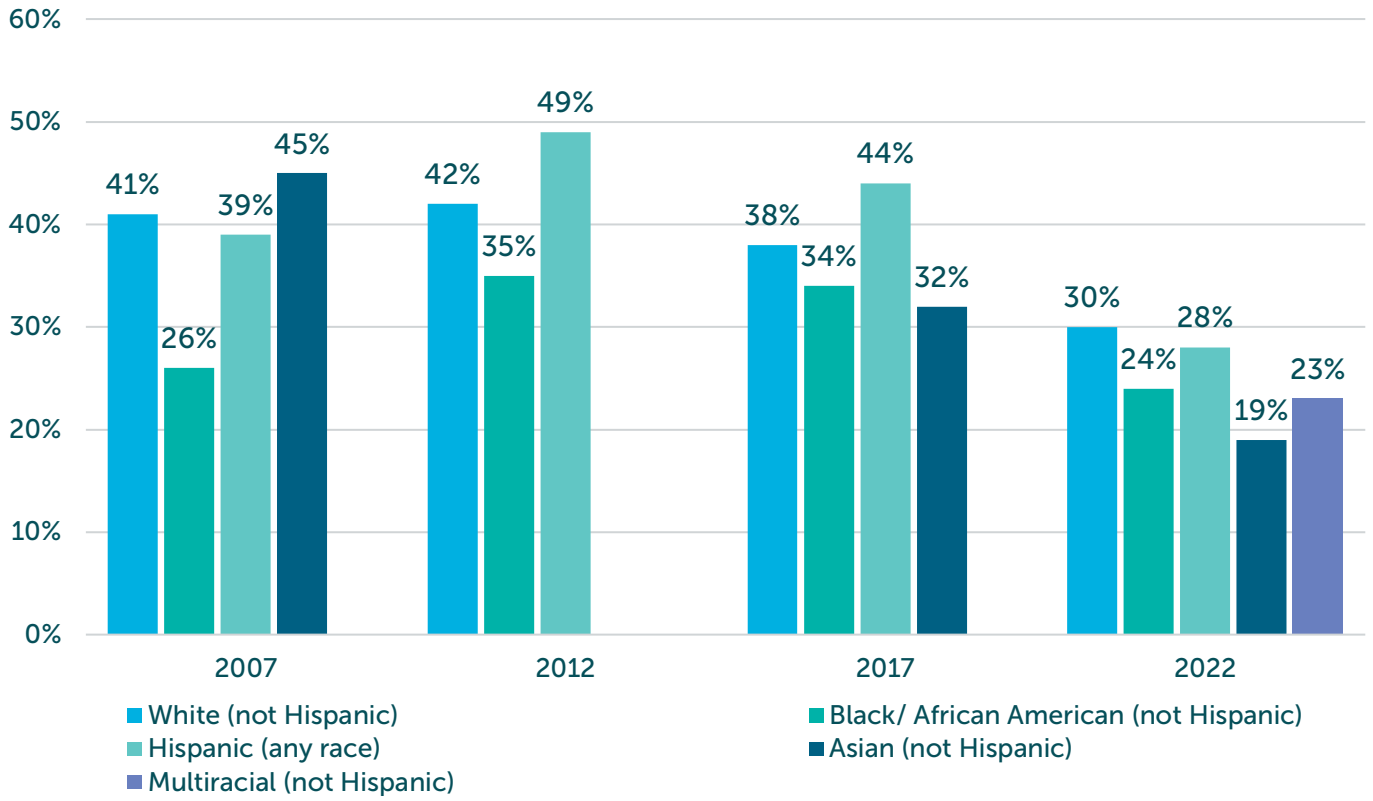
The *Every Smile Counts 2022* survey found the prevalence of dental sealants among Connecticut's third grade children (27.5%) is significantly lower than the national average (41.5% in 2011-2016).[16] Additionally, the prevalence of dental sealants among third grade children is significantly lower in 2022 (27.5%) than found in previous surveys in 2017 (39%), 2012 (43%), and 2007 (38%) (Figure 8).

In 2022, White children had the highest prevalence of dental sealants at 30%, while Hispanic children had a prevalence of 28%, Black children 24%, Asian children 19%, and Multiracial children 23%. Children who were eligible for participation in the NSLP had a lower prevalence of dental sealants than children who were not eligible, with 26.8% of the eligible children and 28.7% of the ineligible children having dental sealants.

**Note: Some dental sealants are clear and may be undetected by visual exam only, leading to possible under-reporting.*

08 Race-Based and Ethnicity-Based Disparities Continue to Exist in Rates of Connecticut's Kindergarten and Third Grade Children Who Have Dental Sealants

Figure 9: Percent of Connecticut Third Grade Children with Dental Sealants by Race/Ethnicity and Year - 2007, 2012, 2017, and 2022



The percentage of third grade children with dental sealants in 2022 is significantly lower than was found in all previous surveys. Less than one-third of surveyed children have sealants. Through all four surveys, White and Hispanic children had the highest proportion of dental sealants, followed by Black children. In 2022, one in three White and Hispanic children had sealants, and one in four Black and Multiracial children had sealants. Asian children had the least presence of sealants, with only one in five (Figure 9).

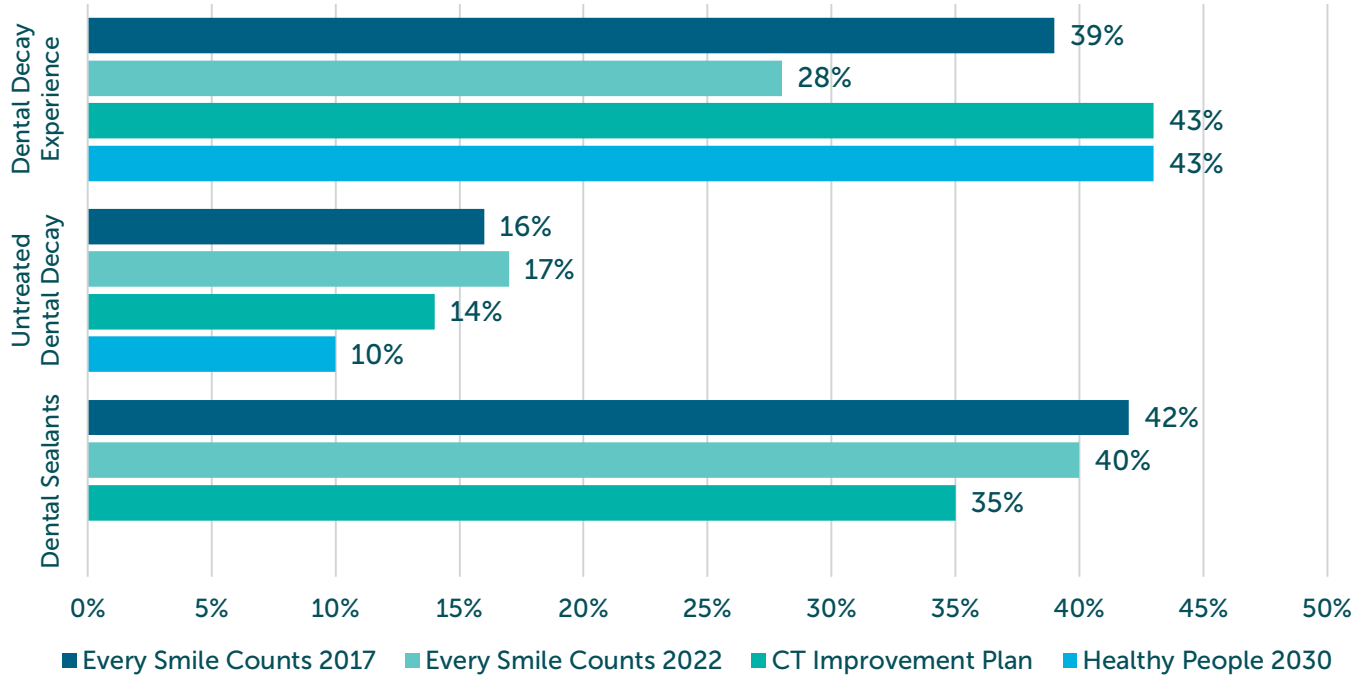
This decrease in third graders obtaining dental sealants could be partially attributed to dental offices, school-based health centers, and community health center dental clinics being closed temporarily during the COVID-19 pandemic. Some sealants are clear and may have been undetected and unreported during the *Every Smile Counts* visual exam.

Sealants are an effective preventative measure.[22] In 2018, the State of Connecticut increased funding for school-based health centers with dental programs to increase the number of schools where sealants are available, with a five-year target of 319 schools. The program targets schools where at least 50% of students are eligible for the Free and Reduced Meal Program (FARM).[23] Further studies are needed to determine the efficacy of these programs in increasing the proportion of students with sealants.

**Note: Data for Asian children in 2012 is not available.*

09 Connecticut Has Not Met the Objectives for Either the National or State Improvement Plans for Third Grade Children's Dental Decay Experience, Untreated Dental Decay or Dental Sealants

Figure 10: Oral Health of Connecticut Third Grade Children Surveyed Compared to Healthy People 2030 Objectives and Oral Health Improvement Plan for Connecticut Objectives



Every decade, the *Healthy People* initiative develops a new set of evidence-based, 10-year national objectives with the goal of improving the health of all Americans. Healthy People 2030 outlined the following oral health status objectives for children:[24]

- **OH-02:** Reduce the proportion of children and adolescents with active and untreated tooth decay. Target: 10.2% *
- **OH-10:** Increase the proportion of children and adolescents who have received dental sealants on one or more of their primary or permanent molar teeth. Target: 42.5% *

In 2019, the CT DPH published the *2019-2024 Connecticut Oral Health Improvement Plan* to develop strategies to improve the oral health of all Connecticut residents. The following objectives were developed for the State's children to achieve by 2024:[23]

- **Objective 1.1:** Reduce to 35%, the proportion of Connecticut children in third grade who have dental caries (tooth decay) experience in their primary or permanent teeth.
- **Objective 1.2:** Increase to 43%, the proportion of Connecticut third grade children who receive dental sealants on at least one of their permanent molar teeth.
- **Objective 2.1:** Reduce to 14%, the proportion of Connecticut third grade children with untreated dental decay.

As of 2022, per the *Every Smile Counts* survey results, Connecticut has not met the objectives for Healthy People 2030 or the Connecticut Oral Health Improvement Plan 2024, with results for third grade children at 28% for sealants, 17% for untreated decay, and 40% for dental decay experience (Figure 10).

**Note: Using data for children in third grade only.*

SECTION 4

KEY STRATEGIES

PARENTS AND OTHER CAREGIVERS

The following key strategies have been identified for parents and others caring for children to improve the oral health of children in Connecticut:

- Make brushing fun for children and celebrate good brushing habits.
- Help children to brush their teeth twice a day with fluoride toothpaste and floss daily.
- Provide children with fluoridated water instead of sugary drinks such as juice or soda.
- Give children nutritious foods that contribute to a healthy mouth and body, such as fruit, nuts, cheese, and vegetables.
- Establish a Dental Home for children within six months of eruption of the first tooth and no later than 12 months of age.
- Bring children to the dentist twice a year for preventive care, cleanings and ask about dental sealants.
- Parents or caregivers with dental anxiety should develop strategies to help ensure they do not pass this on to children.
- Seek out resources to learn how to use the oral health care system and advocate for improving oral health in children.
- Learn how oral health impacts the overall health of children throughout their lifetime.

PROVIDERS

The following key strategies have been identified for medical and oral health providers to improve the oral health of children in Connecticut:

All health professionals:

- Obtain education on the relationship between oral health and overall health including their role in oral disease prevention.
- Recommend children drink fluoridated water or prescribe oral fluoride supplementation at currently recommended doses for children older than six months whose primary water source is deficient in fluoride.
- Provide culturally and linguistically appropriate oral health care by adopting appropriate National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care.[25]
- Develop and disseminate materials to increase oral health literacy for all ages and populations utilizing culturally and linguistically appropriate messaging.
- Raise awareness on the oral health implications of certain medications, such as asthma inhalers and children's medications containing added sugars.

Medical Providers:

- Conduct an oral health assessment, provide oral health education, apply fluoride varnish when appropriate, and refer patients to a Dental Home.
- Promote dental exams before the age of one, as a minimum standard of dental care, particularly for children at moderate or high risk for poor oral health.
- Develop two-way partnerships between medical and dental systems to address health conditions that can affect oral health and overall health (i.e., childhood obesity, childhood diabetes, sleep apnea, etc.)

- Advocate for the sustainability of Federally Qualified Health Centers (FQHCs) and School-Based Health Centers (SBHCs).
- Participate in trainings on conducting oral health risk assessments, oral health instruction and application of fluoride varnish during well-child visits.
- Incorporate oral health risk questions, resources, and referrals to make oral health promotion a standard of care.

Dental Providers:

- Provide a Dental Home that offers comprehensive, continuously accessible, family-centered, coordinated, compassionate, and culturally-effective care for children including acute care and preventive services starting before the age of one.
- Provide services in underserved areas and/or participate in Connecticut's HUSKY program (Medicaid/Children's Health Insurance Program).
- Raise awareness of the availability of care on a sliding scale fee schedule at FQHCs and the availability and benefits of dental insurance plans.
- Increase the proportion of children who receive dental sealants on permanent molars.
- Utilize strategies aimed at reducing barriers to care, such as children's dental anxiety, language, socio-cultural norms, and lack of knowledge about proper oral health habits.
- Utilize silver diamine fluoride when indicated as non-invasive and lower cost treatment for dental decay in children.

POLICYMAKERS

The following key strategies have been identified for policymakers to improve the oral health of children in Connecticut:

- Increase community and public-sector engagement in pursuing and sustaining strategies to improve oral health outcomes for children and families.
- Promote systems to support oral examinations before the age of one, as a minimum standard of dental care.
- Improve and maintain access to dental insurance for all children, especially those of moderate and high-risk for poor oral health.
- Increase capacity of and funding for dental public health services at state and local levels.
- Continue partnering with school districts to improve dental care access for children and provide additional resources to reach additional schools throughout the state.
- Increase the number of dental providers in underserved areas and those participating in Connecticut's HUSKY program (Medicaid/Children's Health Insurance Program).
- Explore other ways to improve access to dental care for underserved populations in public health settings, such as SBHCs, mobile clinics, and dental therapy.
- Increase the number of dental sealants provided in schools, safety-net, and private dental settings.
- Collect and publish statewide data tracking of oral health outcomes by race, ethnicity, language, and socioeconomic status, and other social determinants of health.
- Establish methods to evaluate efficacy of ongoing programs for increasing dental care for children in Connecticut.
- Increase Medicaid reimbursement rates to providers and community health centers who provide oral health care services to children.
- Allocate funding to create oral health resources for dental providers and families to provide care to children with special needs.

SECTION 5

SURVEY METHODS

***Every Smile Counts 2022* screened children in kindergarten and third grade from September 2021 to April of 2022.** The Association of State and Territorial Dental Directors' (ASTDD) *Basic Screening Survey*[26] manual guided the development of the 2022 survey.

The sampling frame for the survey only included in-person public schools in Connecticut with third grade enrollment. If a school with only a third grade was selected, the appropriate kindergarten feeder school was added to the sample.

To assure representation by a variety of demographic and socioeconomic factors, the sampling frame was implicitly stratified by county and the percentage of children eligible for participation in the NSLP. A systematic probability proportional to size sampling scheme was used to select a sample of 47 third grade schools. Seven of the selected third grade schools did not have a kindergarten, so the appropriate kindergarten feeder schools were added to the sample for a total of 54 schools representing 47 sampling intervals.

If a school refused to participate, a replacement school within the same sampling strata was randomly selected. If the sample school plus the replacement school refused to participate, no data were collected in the sampling spectrum. A total of 46 schools, representing 39 sampling intervals participated in the survey. Kindergarten and third grade data is available for 39 of the 47 sampling intervals identified by ASTDD. This survey represents 37 school districts in Connecticut.

Passive (opt-out) and/or positive (opt-in) consent forms were used for student participation. Of the 46 schools, 44 schools used passive parental consent and two schools used both passive and positive consent. Schools that utilized both passive and positive consent had similar rates of student participation compared to schools that used only passive consent. The consent forms and the parent result letters were provided in English, Spanish, Arabic and Portuguese.

Registered Dental Hygienists (RDHs), or screeners, completed the screenings using gloves, penlights, and disposable mouth mirrors or tongue depressors. Data Entry Assistants accompanied the RDHs to record the screening data. The RDHs used diagnostic criteria outlined in ASTDD's *Basic Screening Survey for Children Planning and Implementation Tool Kit*.[26] The screeners and data entry assistants attended a full-day training session, which included a didactic review of the diagnostic criteria along with a visual calibration session.

The RDHs and data entry assistants were required to provide proof of COVID-19 immunizations. Proper infection control measures such as handwashing and personal protective equipment (masks, gloves, and face shields) were used to protect against the transmission of pathogens.

The Connecticut State Department of Education (CSDE) provided information on each child's age, gender, race, ethnicity, eligibility for the NSLP using non-adjusted eligibility guidelines. For data on race and ethnicity, previous *Every Smile Counts* reports did not include classification for Multiracial children. In this report, due to small sample sizes, data for American Indians/Alaska Natives and Native Hawaiians/Other Pacific Islanders are not presented. Classification for Asian children was included in the 2007, 2017, and *2022 Every Smile Counts* reports, but not in the 2012 report. Although the CSDE provided information on English learner status, migrant status, housing status, immigration status, and special education status, these variables are not included in the analyses due to small sample sizes.

Upon completion of screenings at each school, every child regardless of participation received a toothbrush, fluoridated toothpaste, and floss. Students who participated in the screening also received a results letter to be given to their family to inform them of recommended next steps for dental care.

Of the 3,008 kindergarten and 3,068 third grade children enrolled in the 46 participating schools, 4,642 total children participated in the survey for a child participation rate of 76%.

All data analyses were completed using the complex survey procedures within SAS 9.4 (e.g. Proc SurveyFreq) with the Strata = County and Cluster = Sampling Interval. The data were weighted to represent the kindergarten and third grade population within each sampling interval. Weight equaled the number of children in the sampling interval divided by the number of children screened in the sampling interval. Unless otherwise noted, all results are weighted for the complex sampling scheme.

LIMITATIONS

The COVID-19 pandemic presented a unique challenge to the *Every Smile Counts 2022* survey. Many school districts have been suffering from shortages in staff due to COVID-19, and several districts declined to participate in the study due to these concerns. Other districts declined to participate for various other reasons or for reasons not specified.

SECTION 6

DATA TABLES

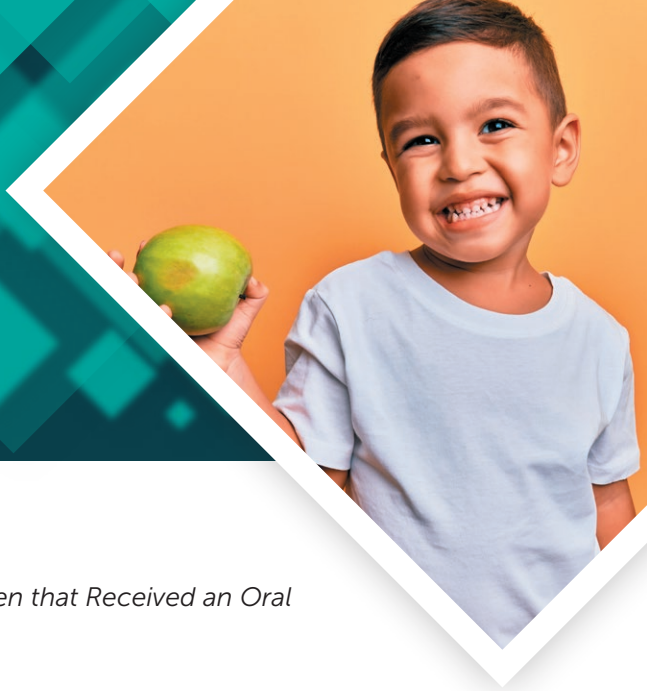


Table 1.1:
Characteristics of Connecticut's Kindergarten and Third Grade Children that Received an Oral Health Screening or a Body Mass Measure, 2021-2022.
(95% Confidence Interval)

	NUMBER OF CHILDREN *(UNWEIGHTED)*	WEIGHTED PERCENT
GRADE		
Kindergarten	2,270	50.0 (49.9-50.2)
3rd	2,366	50.0 (49.8-50.1)
AGE		
5	1,076	24.1 (21.5-26.7)
6	1,123	24.3 (22.0-26.6)
7	29	0.7 (0.2-1.2)
8	1,083	23.4 (20.4-26.5)
9	1,195	24.6 (21.7-27.5)
10	30	0.7 (0.4-1.0)
11	1	0.0 (0.0-0.0)
Missing/Unknown	99	2.2 (1.5-2.9)

Table 1.1 (cont.)

	NUMBER OF CHILDREN *(UNWEIGHTED)*	WEIGHTED PERCENT
GENDER		
Female	2,233	48.3 (46.3-50.4)
Male	2,304	49.5 (47.4-51.6)
Missing/Unknown	99	2.2 (1.5-2.9)
RACE/ETHNICITY		
American Indian/Alaska Native (not Hispanic)	33	0.7 (0.1-1.2)
Asian (not Hispanic)	240	5.2 (4.1-6.3)
Black/African American (not Hispanic)	627	16.1 (9.7-22.5)
Hispanic (any race)	1,346	31.0 (24.1-37.9)
Native Hawaiian/Pacific Islander (not Hispanic)	7	0.2 (0.0-0.3)
White (not Hispanic)	2,097	40.7 (31.3-50.2)
Multiracial (not Hispanic)	187	4.0 (3.1-4.9)
Missing/Unknown	99	2.2 (1.5-2.9)
SCHOOL NSLP PARTICIPATION		
Not eligible	2,665	56.2 (47.2-65.1)
Reduced price eligible	291	6.2 (4.5-7.8)
Free price eligible	1,581	35.5 (27.6-43.4)
Missing/Unknown	99	2.2 (1.5-2.9)

Table 1.2

Oral Health Status of Connecticut's Kindergarten and Third Grade Children Stratified by Grade. (95% Confidence Interval)

	KINDERGARTEN N=2270	THIRD GRADE N=2366	TOTAL N=4636
DECAY EXPERIENCE			
% with dental caries experience - all teeth	27.2 (24.0-30.3)	39.8 (35.5-44.1)	33.5 (30.2-36.7)
% with untreated dental decay - all teeth	14.7 (12.1-17.3)	17.3 (14.4-20.2)	16.0 (13.8-18.2)
% with untreated dental decay - permanent teeth	----	4.2 (2.8-5.5)	----
% with rampant dental caries	8.9 (7.1-10.7)	11.8 (8.8-14.7)	10.3 (8.2-12.5)
TREATMENT NEEDED			
% needing early or urgent dental care	14.0 (11.5-16.4)	16.3 (13.3-19.3)	15.1 (12.7-17.5)
% needing urgent dental care	0.9 (0.4-1.3)	1.3 (0.7-1.9)	1.1 (0.6-1.5)
PREVENTIVE TREATMENT			
% with dental sealants	----	27.5 (24.4-30.7)	----

Table 1.3

Need for Dental Treatment (% of Children). (95% Confidence Interval)

	KINDERGARTEN N=2270	THIRD GRADE N=2366	TOTAL N=4636
DECAY EXPERIENCE			
Needs early or urgent dental care	14.0 (11.5-16.4)	16.3 (13.3-19.3)	15.1 (12.7-17.5)
Needs urgent dental care	0.9 (0.4-1.3)	1.3 (0.7-1.9)	1.1 (0.6-1.5)

Table 1.4A

Oral Health Status of Connecticut's Kindergarten Children Stratified by Race/Ethnicity. (95% Confidence Interval)

	WHITE *(NOT HISPANIC)*	BLACK/ AFRICAN AMERICAN *(NOT HISPANIC)*	HISPANIC *(ANY RACE)*	ASIAN *(NOT HISPANIC)*	MULTIRACIAL *(NOT HISPANIC)*
% with dental caries experience	21.6 (17.8-25.4) n=1,058	31.9 (27.7-36.1) n=292	27.7 (23.0-32.4) n=636	43.0 (34.7-51.3) n=120	36.2 (26.8-45.6) n=94
% with untreated dental decay	10.2 (7.5-12.9) n=1,059	20.5 (16.6-24.3) n=291	16.3 (12.0-20.7) n=636	23.5 (13.6-33.4) n=120	14.9 (6.9-22.8) n=94
% with rampant dental caries	6.5 (4.1-9.0) n=1,058	10.0 (7.2-12.8) n=292	9.5 (6.9-12.0) n=635	20.8 (14.6-27.0) n=120	8.3 (2.0-14.6) n=94
% needing early or urgent dental care	9.9 (6.9-12.9) n=1,060	18.1 (14.5-21.6) n=292	15.8 (12.1-19.4) n=636	22.5 (12.7-32.4) n=120	14.9 (6.9-22.8) n=94
% needing urgent dental care	0.5 (0.0-0.9) n=1,060	0.8 (0.1-1.5) n=292	1.5 (0.4-2.6) n=636	2.0 (0.0-5.0) n=120	0.0 (0.0-0.0) n=94

Table 1.4B

Oral Health Status of Connecticut's Third Grade Children Stratified by Race/Ethnicity. (95% Confidence Level)

	WHITE *(NOT HISPANIC)*	BLACK/ AFRICAN AMERICAN *(NOT HISPANIC)*	HISPANIC *(ANY RACE)*	ASIAN *(NOT HISPANIC)*	MULTIRACIAL *(NOT HISPANIC)*
% with dental caries experience	34.6 (30.4-38.8) n=1,037	38.8 (32.3-45.3) n=333	45.2 (38.8-51.6) n=707	46.9 (32.7-61.1) n=120	42.0 (31.0-53.0) n=93
% with untreated dental decay	13.5 (10.8-16.3) n=1,036	19.1 (13.6-24.6) n=334	20.4 (16.8-24.0) n=708	20.2 (8.4-32.0) n=120	20.3 (11.9-28.8) n=93
% with untreated dental decay -permanent teeth	2.8 (1.2-4.5) n=1,036	5.5 (2.2-8.7) n=334	5.1 (3.3-6.9) n=708	2.2 (0.0-4.8) n=120	5.7 (0.0-11.8) n=93
% with rampant dental caries	9.4 (6.9-11.9) n=1,035	9.9 (6.2-13.6) n=335	14.4 (9.5-19.4) n=708	20.5 (3.7-37.2) n=119	9.3 (3.0-15.7) n=93
% with dental sealants	30.4 (26.8-34.0) n=1,035	24.1 (15.8-32.4) n=335	28.1 (23.6-32.7) n=708	18.9 (9.9-27.9) n=120	22.7 (12.6-32.8) n=93

Table 1.4B (con't)

	WHITE *(NOT HISPANIC)*	BLACK/ AFRICAN AMERICAN *(NOT HISPANIC)*	HISPANIC *(ANY RACE)*	ASIAN *(NOT HISPANIC)*	MULTIRACIAL *(NOT HISPANIC)*
% needing early or urgent dental care	12.7 (10.1-15.4) n=1,037	17.9 (12.5-23.2) n=335	19.3 (15.5-23.0) n=708	17.8 (6.7-28.9) n=120	20.3 (11.9-28.8) n=93
% needing urgent care	0.4 (0.0-0.8) n=1,037	1.5 (0.0-3.2) n=335	1.6 (0.4-2.7) n=708	3.1 (0.0-9.0) n=120	3.0 (0.0-7.0) n=93

Table 1.4C

Oral Health Status of Connecticut's Kindergarten and Third Grade Children Stratified by Race/Ethnicity. (95% Confidence Interval)

	WHITE *(NOT HISPANIC)*	BLACK/ AFRICAN AMERICAN *(NOT HISPANIC)*	HISPANIC *(ANY RACE)*	ASIAN *(NOT HISPANIC)*	MULTIRACIAL *(NOT HISPANIC)*
% with dental caries experience	28.0 (24.3-31.7) n=2,095	35.4 (31.0-39.8) n=625	36.6 (32.2-41.0) n=1,343	44.9 (38.3-51.4) n=240	39.1 (31.5-46.7) n=187
% with untreated dental decay	11.8 (9.6-14.1) n=2,095	19.8 (15.7-23.9) n=625	18.4 (15.4-21.4) n=1,344	21.9 (16.5-27.4) n=240	17.6 (13.0-22.2) n=187
% with rampant caries	7.9 (5.8-10.0) n=2,093	9.9 (7.5-12.3) n=627	12.0 (8.8-15.2) n=1,343	20.6 (11.5-29.8) n=239	8.8 (4.1-13.5) n=187
% needing early or urgent dental care	11.3 (8.8-13.7) n=2,097	18.0 (14.0-21.9) n=627	17.6 (14.7-20.5) n=1,344	20.3 (15.0-25.6) n=240	17.6 (13.0-22.2) n=187
% needing urgent dental care	0.4 (0.1-0.8) n=2,097	1.1 (0.3-2.0) n=627	1.5 (0.8-2.3) n=1,344	2.5 (0.0-5.7) n=240	1.5 (0.0-3.6) n=187

Table 1.5A

Oral Health Status of Connecticut's Kindergarten Children Stratified by National School Lunch Program (NSLP) Eligibility Status. (95% Confidence Interval)

	NOT ELIGIBLE	ELIGIBLE FOR FREE OR REDUCED-PRICE MEALS
% with dental caries experience	24.3 (20.4 - 28.3) n=1,438	31.6 (27.2 - 36.1) n=781
% with untreated dental decay	13.1 (10.3 - 16.0) n=1,438	17.4 (13.3 - 21.6) n=781
% with rampant dental decay	7.8 (5.4 - 10.1) n=1,437	10.6 (8.5 - 12.6) n=781
% needing early or urgent treatment	12.5 (9.6 - 15.5) n=1,439	16.4 (12.9 - 19.9) n=782
% needing urgent care	0.9 (0.4 - 1.4) n=1,439	1.0 (0.2 - 1.7) n=782

Table 1.5B

Oral Health Status of Connecticut's Third Grade Children Stratified by National School Lunch Program (NSLP) Eligibility Status. (95% Confidence Interval)

	NOT ELIGIBLE	ELIGIBLE FOR FREE OR REDUCED-PRICE MEALS
% with dental caries experience - all teeth	32.2 (27.8 - 36.7) n=1,223	48.1 (43.0 - 53.1) n=1,088
% with untreated dental decay - all teeth	13.4 (10.0 - 16.8) n=1,225	21.9 (17.6 - 26.1) n=1,087
% with untreated dental decay - permanent teeth	2.9 (1.6 - 4.2) n=1,225	5.6 (3.5 - 7.7) n=1,087
% with rampant dental decay	8.8 (6.0 - 11.7) n=1,223	15.1 (11.4 - 18.8) n=1,088
% needing early or urgent treatment	12.5 (9.1 - 16.0) n=1,225	20.7 (16.3 - 25.0) n=1,089
% needing urgent care	0.8 (0.1 - 1.5) n=1,225	1.7 (0.9 - 2.6) n=1,089
% with dental sealants	28.7 (24.8 - 32.6) n=1,224	26.8 (22.6 - 31.0) n=1,088

Table 1.5C

Oral Health Status of Connecticut's Kindergarten and Third Grade Children Stratified by National School Lunch Program (NSLP) Eligibility Status. (95% Confidence Interval)

	NOT ELIGIBLE	ELIGIBLE FOR FREE OR REDUCED-PRICE MEALS
% with dental caries experience	27.9 (24.4 - 31.4) n=2,661	40.9 (37.1 - 44.6) n=1,869
% with untreated dental decay	13.2 (10.7 - 15.8) n=2,663	19.9 (17.0 - 22.8) n=1,868
% with rampant dental decay	8.2 (6.0 - 10.5) n=2,660	13.1 (10.6 - 15.6) n=1,869
% needing early or urgent treatment	12.5 (9.8 - 15.3) n=2,664	18.8 (15.8 - 21.8) n=1,871
% needing urgent care	0.9 (0.4 - 1.4) n=2,664	1.4 (0.8 - 1.9) n=1,871

Table 1.6A

Oral Health Status of Connecticut's Kindergarten Students: Comparison of Every Smile Count Reports from 2007, 2012, 2017, and 2022. (95% Confidence Interval)

	2007 N=4,315	2012 N=4,069	2017 N=2,184	2022 N=2,270
% with dental caries experience	27.3 (24.4 – 30.1)	28.6 (25.3 – 31.8)	32.0 (28.2 – 35.9)	27.2 (24.0 - 30.3)
% with untreated dental decay	15.5 (12.9 – 18.0)	12.5 (10.4 – 14.6)	17.3 (14.7 – 20.0)	14.7 (12.1 - 17.3)
% with rampant dental caries	9.1 (7.6 – 10.7)	9.2 (7.3 – 11.1)	6.9 (4.9 – 8.9)	8.9 (7.1 - 10.7)
% needing early or urgent dental care	12.2 (9.7 – 14.6)	11.6 (9.7 – 13.5)	16.5 (13.9 – 19.1)	14.0 (11.5 - 16.4)

Table 1.6B

Oral Health Status of Connecticut's Third Grade Students: Comparison of Every Smile Count Reports from 2007, 2012, 2017, and 2022. (95% Confidence Interval)

	2007 N= 4,440	2012 N=4,339	2017 N-2,234	2022 N=2,366
% with dental caries experience	40.6 (36.3 – 44.8)	39.6 (36.5 - 42.7)	41.5 (37.2 – 45.8)	39.8 (35.5 - 44.1)
% with untreated dental decay	17.8 (14.8 – 20.8)	11.7 (14.8 – 20.8)	15.5 (12.5 – 18.5)	17.3 (14.4 - 20.2)
% with rampant dental caries	13.6 (11.4 – 15.9)	13.3 (11.1 – 16.5)	7.5 (4.4 – 10.6)	11.8 (8.8 - 14.7)
% needing early or urgent dental care	12.5 (10.1 – 14.9)	12.6 (9.4 – 15.8)	9.9 (8.2 – 11.7)	16.3 (13.3 - 19.3)
% with dental sealants	38.1 (34.3 – 42.0)	42.6 (38.6 – 46.6)	38.8 (33.6 – 44.0)	27.5 (24.4 - 30.7)

Table 1.6C

Oral Health Status of Connecticut's Kindergarten and Third Grade Students: Comparison of Every Smile Count Reports from 2007, 2012, 2017, and 2022. (95% Confidence Interval)

	2007 N= 4,440	2012 N=4,339	2017 N-2,234	2022 N=2,366
% with dental caries experience	34.1 (31.4 – 36.9)	34.3 (31.5 – 37.0)	36.8 (33.3 – 40.2)	33.5 (30.2 - 36.7)
% with untreated dental decay	16.7 (14.2 – 19.1)	12.1 (10.5 – 13.7)	16.4 (14.0 – 18.8)	16.0 (13.8 - 18.2)
% with rampant dental caries	11.5 (9.9 – 13.0)	11.3 (9.5 – 13.1)	7.2 (5.2 – 9.2)	10.3 (8.2 - 12.5)
% needing early or urgent dental care	12.4 (10.3 – 14.5)	12.1 (10.1 – 14.3)	15.4 (13.3 – 17.5)	15.1 (12.7 - 17.5)

Table 1.7A

Oral Health Status of Connecticut's White Students: Comparison of Every Smile Count Reports from 2007, 2012, 2017, and 2022. (95% Confidence Interval)

	2007 N=5,579	2012 N=5,164	2017 N=4,418	2022 N=2,097
% with dental caries experience	28.9 (26.4 – 31.3)	28.1 (25.9 – 30.3)	33.6 (9.2 – 37.9)	28.0 (24.3 - 31.7)
% with untreated tooth decay	13.0 (10.7 – 15.3)	8.9 (7.6 – 10.2)	15.2 (12.5 – 17.8)	11.8 (9.6 - 14.1)
% with rampant dental caries	7.9 (6.6 – 9.1)	8.0 (6.7 – 9.3)	6.0 (4.4 – 7.7)	7.9 (5.8 - 10.0)
% needing early or urgent dental care	9.1 (7.5 – 10.6)	9.5 (7.1 – 11.9)	13.6 (11.1 – 16.0)	11.3 (8.8 - 13.7)
% with dental sealants – third grade only	40.9 (36.7 – 45.0)	41.9 (38.0 – 45.9)	38.3 (33.6 – 44.0)	30.4 (26.8 - 34.0)

Table 1.7B

Oral Health Status of Connecticut's Black Students: Comparison of Every Smile Count Reports from 2007, 2012, 2017, and 2022. (95% Confidence Interval)

	2007 N=859	2012 N=1,644	2017 N=1,094	2022 N=627
% with dental caries experience	49.3 (43.7 – 55.0)	45.3 (41.3 – 49.4)	42.6 (35.4 – 49.7)	35.4 (31.0 - 39.8)
% with untreated dental decay	26.9 (22.1 – 31.7 0	16.9 (22.1 – 31.7)	13.9 (9.3 – 18.5)	19.8 (15.7 - 23.9)
% with rampant dental caries	18.1 (11.3 – 34.9)	16.5 (13.0 – 20.1)	6.3 (3.3 – 9.3)	9.9 (7.5 - 12.3)
% needing early or urgent dental care	15.3 (8.5 – 22.2)	15.1 (11.8 – 18.4)	18.8 (13.4 – 24.2)	18.0 (14.0 - 21.9)

Table 1.7C

Oral Health Status of Connecticut's Hispanic Students: Comparison of Every Smile Count Reports from 2007, 2012, 2017, and 2022. (95% Confidence Interval)

	2007 N= 938	2012 N=997	2017 N=497	2022 N=1,346
% with dental caries experience	42.8 (37.6 – 48.0 0)	43.3 (39.5 - 46.6)	35.2 (29.9 – 40.4)	36.6 (32.2 - 41.0)
% with untreated tooth decay	25.0 (20.6 – 29.4)	18.1 (15.6 – 20.5)	13.9 (9.3 – 18.5)	18.4 (15.4 - 21.4)
% with rampant dental caries	16.4 (13.2 – 19.6)	17.4 (14.8 – 20.0)	11.3 (4.7 – 17.9)	12.0 (8.8 - 15.2)
% needing early or urgent dental care	19.8 (16.4 – 23.2)	18.3 (15.7 – 20.8)	14.4 (9.8 – 19.0)	17.6 (14.7 - 20.5)
% with dental sealants – third grade only	25.5 (20.3 – 30.7)	34.9 (28.6 – 41.3)	33.8 (18.4 – 49.1)	28.1 (23.6 - 32.7)

ORAL HEALTH RESOURCES FOR CONNECTICUT

American Dental Hygienists' Association - Connecticut
https://www.adha-ct.com/
203-210-5600

- Dental hygiene resources

Association of State & Territorial Dental Directors
http://www.astdd.org/

- Basic screening surveys
- Dental public health policy

CareQuest Institute for Oral Health
https://www.carequest.org/

- Resources for dental equity advocacy

Centers for Disease Control and Prevention
https://www.cdc.gov/OralHealth/index.html

- Oral health basics
- Community water fluoridation

Community Catalyst
https://www.communitycatalyst.org/initiatives-and-issues/initiatives/dental-access-project

- Oral health policy solutions

Community Health Centers Association of CT
http://www.chcact.org
860-667-7820

- List of community health centers
- Resources for community health centers

Community Health Center, Inc.
https://www.chc1.com/
860-347-6971

- List of health center sites

ConneCT
https://connect.ct.gov/access/jsp/access/Home.jsp

- HUSKY login

Connecticut Association of School Based Health Centers
http://www.ctschoolhealth.org/
203-230-9976

- School based dental services

Connecticut Dental Health Partnership
https://www.ctdhp.com/default.asp
888-CT DENTAL

- Care coordination for Dental HUSKY patients
- Information for Provider Partners
- List of safety-net providers

Connecticut Department of Developmental Services
https://portal.ct.gov/DDS/Legal/Eligibility/Eligibility-for-DDS-Services
860-263-2449

- CT HUSKY/ Medicaid Agency

Connecticut Department of Public Health, Office of Oral Health
http://www.ct.gov/dph
860-509-7382

- Connecticut oral health information and technical assistance
- *Every Smile Counts* surveys
- State Oral Health Plan
- List of safety-net providers

Connecticut Department of Social Services
http://www.ct.gov/dss/site/default.asp
866-420-2924

- Medicaid/HUSKY

Connecticut Foundation for Dental Outreach
https://cfdo.org/
860-863-5940

- Mission of Mercy charitable dental care

Connecticut Oral Health Initiative, Inc.
http://www.ctoralhealth.org/
860-246-2644

- Oral health advocacy

Connecticut Primary Care Association
https://www.ctpca.org/

- Community health centers

Connecticut State Dental Association
http://www.csda.com/
860-378-1800

- Dental resources
- List of CT community health centers with dental clinics

Goodwin College, Dental Hygiene
http://www.goodwin.edu
800-889-3282

- Dental hygiene school
- Preventive dental services

Head Start Program
https://www.benefits.gov/benefit/1901
866-763-6481

- Program for promoting school readiness of children

Healthy People
https://www.healthypeople.gov/

- Healthy People 2030 Objectives

HRSA Maternal and Child Health Bureau
https://mchb.hrsa.gov/

- Funding opportunities
- Maternal & child health topics
- Data, research & epidemiology

National Health and Nutrition Examination Survey
https://www.cdc.gov/nchs/nhanes/nhanes_products.htm

- National data on health measures

National Health Service Corps
https://www.nhsc.hrsa.gov/

- Federal loan repayment program
- Scholarships

National School Lunch Program
https://portal.ct.gov/SDE/Nutrition/National-School-Lunch-Program

- Free or reduced lunch eligibility for school children

Oral Health Nursing Education and Practice
http://ohnep.org/

- Interprofessional oral health integration advocacy

Oral Health Progress and Equity Network
https://openoralhealth.org/

- Advocacy for equitable oral health

The PEW Charitable Trusts
http://www.pewtrusts.org/en

- Public policy and research

Tunxis Community College, Dental Hygiene
https://www.tunxis.edu
860-773-1673

- Dental hygiene school
- Preventive dental services

University of Bridgeport, Fones School of Dental Hygiene
http://www.bridgeport.edu/
203-576-4137

- Dental hygiene school
- Preventive dental services

University of Connecticut School of Dental Medicine
https://health.uconn.edu/dental/
844-388-2666

- Dental school
- Dental services

University of New Haven, Dental Hygiene
http://www.newhaven.edu
203-931-6028

- Dental hygiene school
- Preventive dental service

SECTION 8

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Connecticut Department of Public Health
Office of Oral Health
410 Capitol Avenue, MS # 11 DNT
Hartford, Connecticut 06134-0308
www.ct.gov/dph/oralhealth