

# Every Smile Counts

## The Oral Health of Connecticut's Children



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August 2017



**Connecticut Department of Public Health  
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The Connecticut Department of Public Health wishes to thank all elementary schools, parents, and children that participated in the *Every Smile Counts 2017*.

This publication was supported by the Cooperative Agreement Number **U58DP004888-05** funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.



# The Oral Health of Connecticut's Children

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With the *Every Smiles Counts 2017*, the Connecticut Department of Public Health, Office of Oral Health takes a third look at the oral health status and treatment needs of the children in the state. The 2007, 2012, and 2017 *Every Smiles Counts Reports* support development of state policies and programs to reach the goal of ensuring all Connecticut's children enjoy optimal oral health through receiving appropriate preventive and restorative dental care.

*Every Smile Counts 2017* was a statewide health survey of kindergarten and third grade children from a representative sample of elementary schools. More than 4,400 children received dental screenings and Body Mass Index measurements in 25 districts. The oral health information collected in *Every Smiles Counts 2017* is organized into nine key findings. Data for each finding is presented with graphs or tables. Wherever possible, data from *Every Smiles Counts 2017* was compared to the 2007 and 2012 *Every Smiles Counts* reports results and national averages and objectives.

### Key Findings

1. Dental decay continues to be a public health problem for Connecticut elementary-school children.
2. Fifteen percent of Connecticut children surveyed have not received appropriate dental care.
3. Thirty-nine percent of third grade children surveyed in Connecticut have dental sealants.
4. There are racial and ethnic health disparities in levels of dental disease among Connecticut children surveyed in 2017.
5. There are socioeconomic health disparities in levels of dental disease among Connecticut children surveyed in 2017.
6. Compared to previous *Every Smile Counts* findings, there are changes to the racial and ethnic health disparities in the level of decay experience among Connecticut children surveyed.
7. Sixteen percent of Connecticut children surveyed have untreated decay compared to 14% in previous *Every Smile Counts* surveys.
8. Compared to previous *Every Smile Counts* findings, there are changes to the racial and ethnic health disparities in levels of Connecticut children surveyed with dental sealants.
9. Connecticut exceeded the Healthy People 2020 objectives for reducing the proportion of children aged 6 – 9 years with decay experience and untreated tooth decay and increasing the proportion of third grade children with dental sealants.





### Implications and Next Steps

*Every Smile Counts 2017* provides important information on the oral health of elementary school children across the state in 2017. With the knowledge that oral disease can lead to problems with eating, speaking, playing and learning<sup>3</sup>, the comparison of past state data and national averages can be a basis for developing next steps to address oral health concerns for Connecticut's children. Detected disparities in the oral health of Connecticut children should be addressed by targeted prevention and intervention activities with progress measured by similar surveys done at five-year intervals. The intervention activities should differ depending on the type of disparity being addressed (e.g., race/ethnicity or socioeconomic status).

**To make an impact, it is necessary to increase private and public-sector participation in mobilizing resources and developing policy to pursue and sustain strategies targeted at patients, providers, and systems by:**

- Educating on 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 at reducing racial, ethnic, and socioeconomic disparities in oral health.
- Instilling the concept of a dental home for comprehensive, accessible, and coordinated care starting before the age of one.
- Integrating oral health into medical practices.
- Increasing access and utilization of dental services in school-based, public health, and private settings.
- Increasing knowledge and consumption of fluoridated water to prevent dental decay.
- Increasing access to and utilization of dental insurance.

Achieving the vision that all Connecticut's children have optimal oral health as an integral part of their overall health and well-being will take the commitment from many stakeholders who are willing to make changes, pursue funding, and measure progress. Prioritization of the strategies is needed based on impact, feasibility, and support.

## Results at a glance

Status	Findings
<b>Kindergarten</b>	<b>Among Connecticut kindergarten children surveyed in 2017:</b>
<b>Dental Decay Experience</b>	<ul style="list-style-type: none"> <li>• 32% have experienced dental decay, compared to 29% reported in 2012 and 27% reported in 2007.</li> </ul>
<b>Untreated Dental Decay</b>	<ul style="list-style-type: none"> <li>• 17% have untreated dental decay, compared to 13% reported in 2012 and 16% reported in 2007.</li> </ul>
<b>Rampant Tooth Decay</b>	<ul style="list-style-type: none"> <li>• 7% have rampant tooth decay, compared to 9% reported in 2012 and 2007.</li> </ul>
<b>Need Early or Urgent Care</b>	<ul style="list-style-type: none"> <li>• 17% need early or urgent care, compared to 12% in 2012 and 2007.</li> </ul>
<b>Third Grade</b>	<b>Among Connecticut third grade children surveyed in 2017:</b>
<b>Dental Decay Experience</b>	<ul style="list-style-type: none"> <li>• 42% have experienced dental decay, compared to 40% reported in 2012 and 41% reported in 2007.</li> </ul>
<b>Untreated Dental Decay</b>	<ul style="list-style-type: none"> <li>• 16% have untreated dental decay, compared to 12% reported in 2012 and 18% reported in 2007.</li> </ul>
<b>Rampant Tooth Decay</b>	<ul style="list-style-type: none"> <li>• 8% have rampant tooth decay, compared to 13% reported in 2012 and 14% reported in 2007.</li> </ul>
<b>Need Early or Urgent Care</b>	<ul style="list-style-type: none"> <li>• 14% need early or urgent care, compared to 13% reported in 2012 and 2007.</li> </ul>
<b>Dental Sealant</b>	<ul style="list-style-type: none"> <li>• 39% have dental sealants, compared to 43% reported in 2012 and 38% reported in 2007.</li> </ul>

**T**ooth decay, known as dental caries, is a disease process where bacteria in the mouth use sugars in food to make acids which breakdown the tooth enamel. Dental caries bacteria are transmissible.<sup>1</sup> Generally, public perception has been that dental decay is a natural and minor occurrence that deserves little awareness or money for prevention. However, dental caries is preventable, and remains the most common chronic disease affecting children aged 6 to 11 years and adolescents aged 12 to 19 years.<sup>2</sup> Untreated tooth decay can cause pain and infections that may lead to problems with eating, speaking, playing, and learning.<sup>3</sup>

**“Oral health is essential to the general health and well-being of all Americans and can be achieved by all Americans. However, not all Americans are achieving the same degree of oral health.”<sup>4</sup>**

### The results of not treating decay<sup>5</sup>

- **Pain:** Dental decay can cause constant and agonizing pain. Many children do 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.

- **Nutrition Problems:** Chronically painful and infected teeth make chewing and swallowing an uncomfortable and difficult chore. Children with dental disease often do not get the proper nutrition they need to grow.
- **Tooth loss:** Chronic childhood dental disease often causes children’s “baby” teeth to fall out or be removed before their adult teeth are ready to take their place.
- **Sleep deprivation:** Children with chronically painful teeth have trouble getting a good night’s rest.
- **Attention problems:** Children with infected and painful teeth have a difficult time relaxing, sitting still, and paying attention in class.
- **Social development:** Dental problems are associated with shyness, unhappiness, feeling of worthlessness, and reduced friendliness.<sup>6</sup>
- **Missed school days:** Children with infected and painful teeth miss more school days than other children, disrupting their educational and social experiences and increasing costs for school districts.

The mouth reflects general health and well-being. Although the prevalence and severity of tooth decay has declined among school-aged children in the United States, in certain populations, it remains a problem.

On average, low-income children and racial and ethnic minority groups have more untreated tooth decay compared to the U.S. population as a whole. Nationally, the greatest racial and ethnic disparity among children aged 2–4 years and aged 6–8 years is seen in Mexican American and Black, non-Hispanic children.<sup>7</sup>



## The Importance of Oral Health (cont.)

The American Dental Association, the American Academy of Pediatric Dentistry, and the American Association of Pediatricians recommend establishing a dental home within six months of eruption of the first tooth and no later than 12 months of age, to conduct a caries risk assessment and provide parental education for prevention of early childhood caries.

Dental decay, when left untreated, has negative consequences to the overall health and well-being of children. It can affect chronic diseases like asthma, reduce self-esteem, impair speech development, and impact the ability to eat. Poor oral health can lead to decreases in the social, nutritional, and educational development of the child.<sup>8</sup>

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 outlined in the *2000 Oral Health in America: A Report of the Surgeon General*. Some of the approaches to promote oral health include:<sup>4</sup>

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

**The following report provides an analysis of the outcomes of the *Every Smile Counts 2017* Survey outlining survey methods and limitations, outcomes, and providing key strategies and recommendations for improving the oral health of Connecticut's children.**

To increase the awareness of the status of the oral health of Connecticut's children, the Connecticut Department of Public Health Office of Oral Health contracted with the Connecticut Oral Health Initiative, Inc. to conduct Every Smile Counts 2017, a statewide oral health survey, during the spring of the 2016-2017 school year. The focus of the Survey was kindergarten and third grade children enrolled in Connecticut's public elementary schools; more than 4,400 children in kindergarten and third grade were screened. Detailed information on the design of the Every Smile Counts 2017 can be found in the Survey Methods section of this report.

Data from *Every Smile Counts 2017* is organized into nine key findings, which highlight the current oral health of Connecticut's children and disparities in oral health within the state.

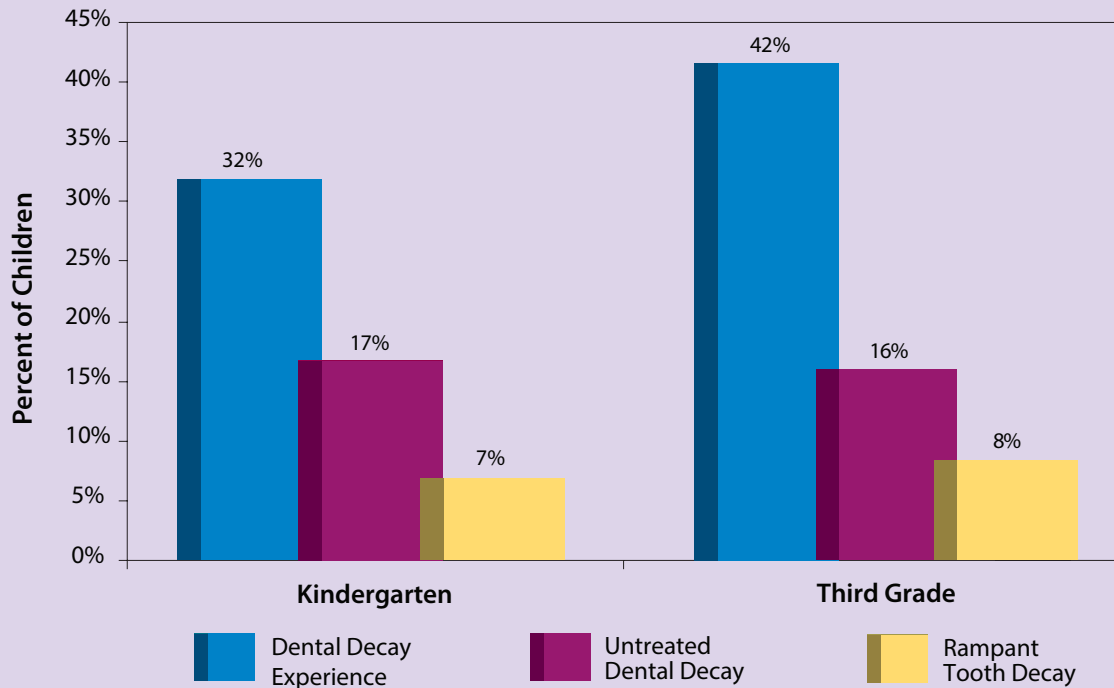
1. Dental decay continues to be a public health problem for Connecticut's elementary school children.
2. Fifteen percent of Connecticut children surveyed have not received appropriate dental care.
3. Thirty-nine percent of third grade children surveyed in Connecticut have dental sealants.
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5. There are socioeconomic health disparities in levels of dental disease among Connecticut children surveyed in 2017.
6. Compared to previous *Every Smile Counts* findings, there are changes to the racial and ethnic health disparities in the level of decay experience among Connecticut children surveyed.
7. Sixteen percent of Connecticut children surveyed have untreated decay compared to 14% in previous *Every Smile Counts* surveys.
8. Compared to previous *Every Smile Counts* findings, there are changes to the racial and ethnic health disparities in levels of Connecticut children surveyed with dental sealants.
9. Connecticut exceeded the Healthy People 2020 objectives for reducing the proportion of children aged 6 – 9 years with dental decay experience and untreated tooth decay and increasing the proportion of third grade children with dental sealants.





## Key Finding #1: Dental Decay Continues to Be a Public Health Problem for Connecticut's Elementary School Children.

Percent of Connecticut Children Surveyed with Dental Decay Experience, Untreated Dental Decay and Rampant Tooth Decay by Grade, 2017



Tooth decay occurs in the primary (baby) and permanent (adult) teeth across the lifespan. Dental decay experience in the past is known through the observation of fillings, crowns, or teeth that have been extracted because of dental decay, or in the present as untreated dental decay or cavities.

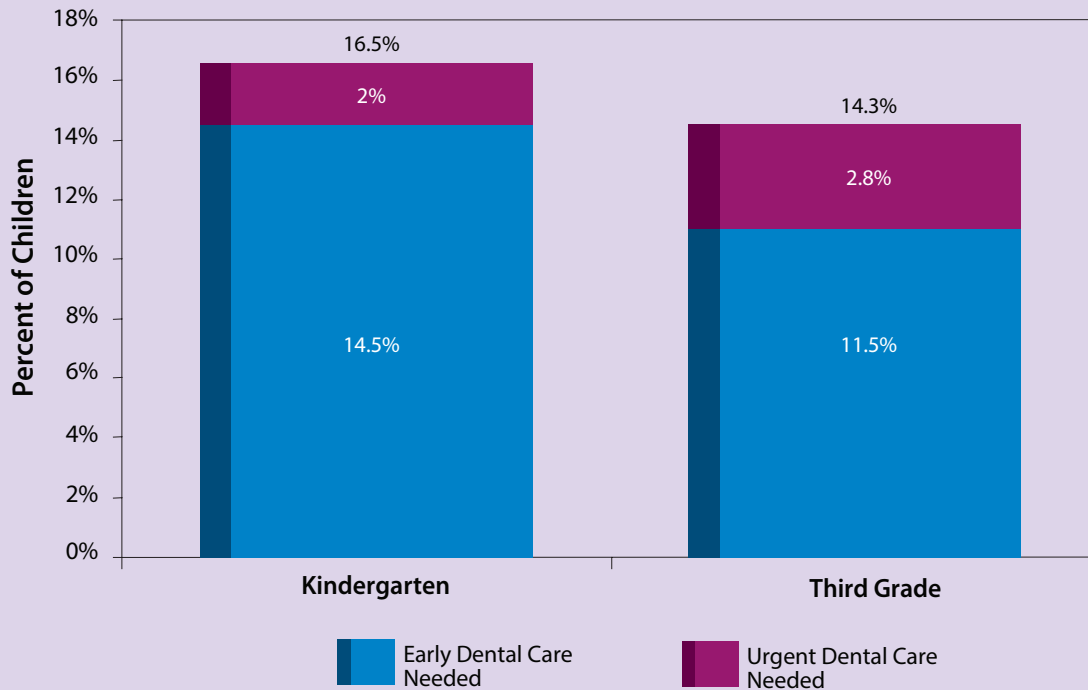
In the *Every Smile Counts 2017* Survey, 1 out of 3 children in kindergarten and 2 out of 5 children in third grade have experienced dental decay. With a higher number of children surveyed experiencing dental decay in older children, it would be reasonable to expect an increased rate of untreated tooth decay, however children in kindergarten have similar rates of untreated dental decay to those in third grade.

When compared to 2005-2010 national averages of 52% of third grade children experienced dental decay, Connecticut's third grade children surveyed had a lower experience of dental decay at 42%. Similarly, 32% of kindergarten children surveyed in Connecticut have experienced dental decay, which is lower than the 2005-2010 national average for 5-year-old children of 36%. The prevalence of untreated dental decay among Connecticut's kindergarten children (17%) is lower than the national average for 5-year-olds (21%) and the prevalence of untreated dental decay among Connecticut's third grade children (16%) is lower than the national average for third graders (23%).<sup>9</sup> Both grades have similar experience with rampant tooth decay leading to a possible conclusion that rampant decay starts early in childhood. Early prevention efforts are necessary to eradicate dental disease in Connecticut's children.



## Key Finding #2: Fifteen Percent of Connecticut Children Surveyed Have Not Received Appropriate Dental Care.

Percent of Connecticut Children Surveyed Needing Early or Urgent Dental Care by Grade, 2017



A child with untreated decay is defined as requiring treatment within the next 6 months of the oral screening, except possibly when the tooth is about to be lost and replaced by a permanent tooth. If a child has pain or infection due to a dental problem, they should receive dental care as soon as possible. Fifteen percent of elementary school children screened in Connecticut need early or urgent dental care. Based on race/ethnicity, 14% of Black children needed early or urgent care, equal to the percentage of White children, while 19% of Hispanic and Asian children needed care. The percent of children needing early or urgent care ranged from 12% in schools with less than 25% of children on the National School Lunch Program to 19% in schools with more than 75% of the students on the program.

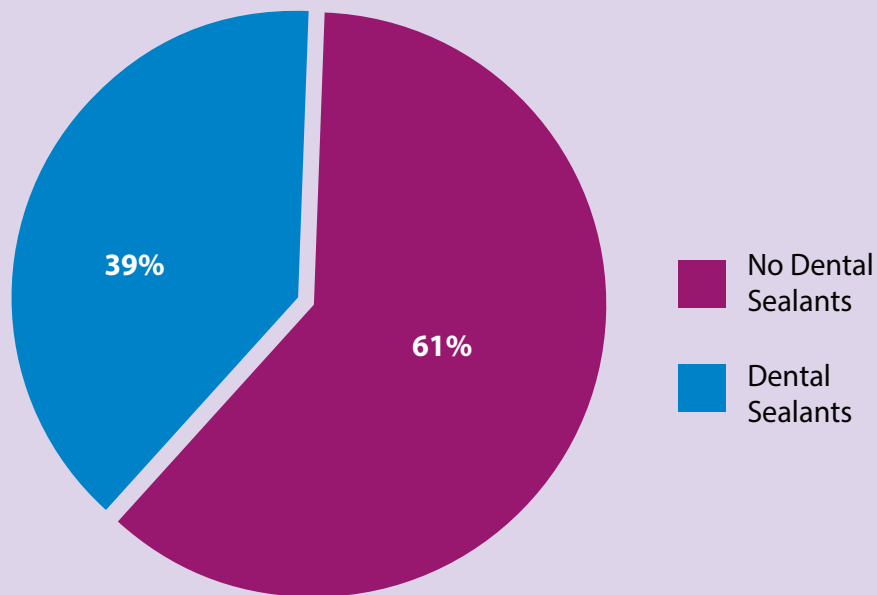
If 2.4% of the approximately 75,400 kindergarten and third grade children in Connecticut had an urgent need for dental care, as seen in this study, then about 1,810 kindergarten and third grade children could be sitting in a classroom with oral pain or infection. If this percent is extrapolated to all children in kindergarten to sixth grade, then approximately 6,500 children could be in need of urgent dental care.

Since diagnostic dental examinations were not performed during the *Every Smile Counts 2017* Survey, it can be assumed that some dental problems were missed and that these numbers may underestimate the proportion of children needing dental care.



### Key Finding #3: Thirty-Nine Percent of Third Grade Children Surveyed in Connecticut Have Dental Sealants.

Percent of Connecticut's Third Grade Children Surveyed with Dental Sealants, 2017



Dental sealants are a well-accepted clinical intervention to prevent tooth decay. They are thin coatings placed on the chewing surfaces of the back teeth (molars) to prevent cavities for many years. School-age children (ages 6-11) without dental sealants have almost 3 times more cavities in their first molars than those with dental sealants.<sup>10</sup> 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.<sup>11</sup>

The *Every Smile Counts 2017* prevalence of dental sealants among Connecticut's third grade children (39%) is slightly higher than the national average (32% in 2005-2010).<sup>9</sup> Forty-one percent of females surveyed had dental sealants compared to 35% of the males. Hispanic children surveyed had the highest prevalence of dental sealants at 44%, while White children surveyed had a prevalence of 38%, Black children 34%, and Asian children 32%. Compared to schools with less than 25% eligible for the National School Lunch Program, schools with 25-49% eligible students are less likely to have protective dental sealants.

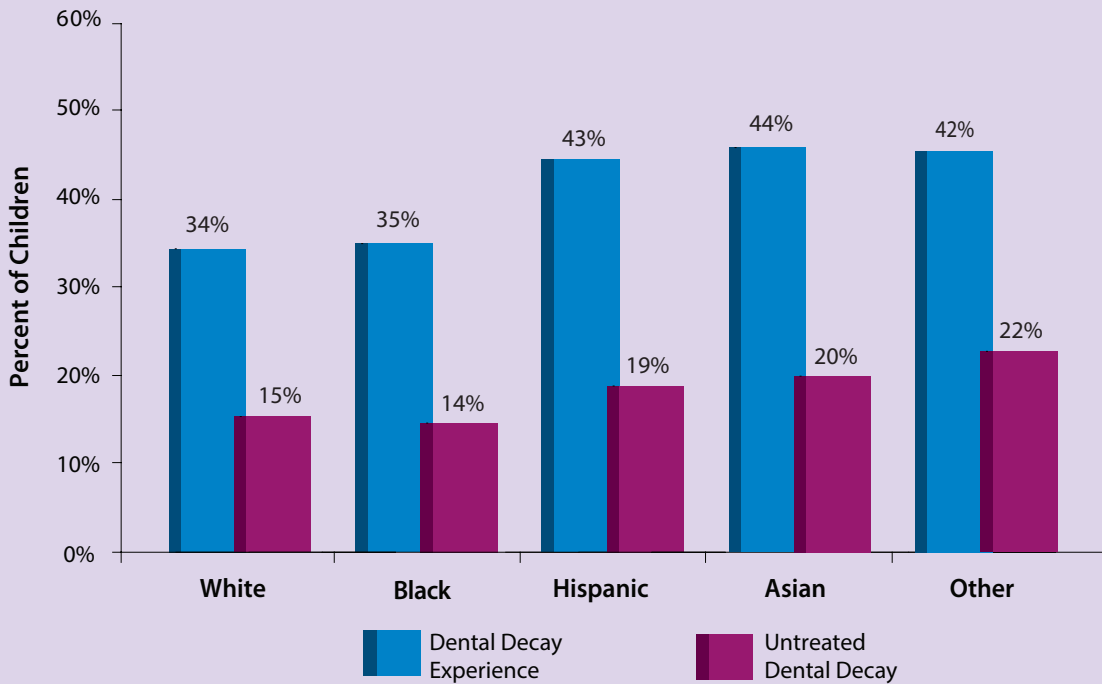
Many dental sealants are clear and may be undetected by visual exam only leading to possible under reporting.





## Key Finding #4: There Are Racial and Ethnic Health Disparities in Levels of Dental Disease among Connecticut Children Surveyed in 2017.

Percent of Connecticut Kindergarten and Third Grade Children Surveyed with Decay Experience and Untreated Decay by Race/Ethnicity, 2017



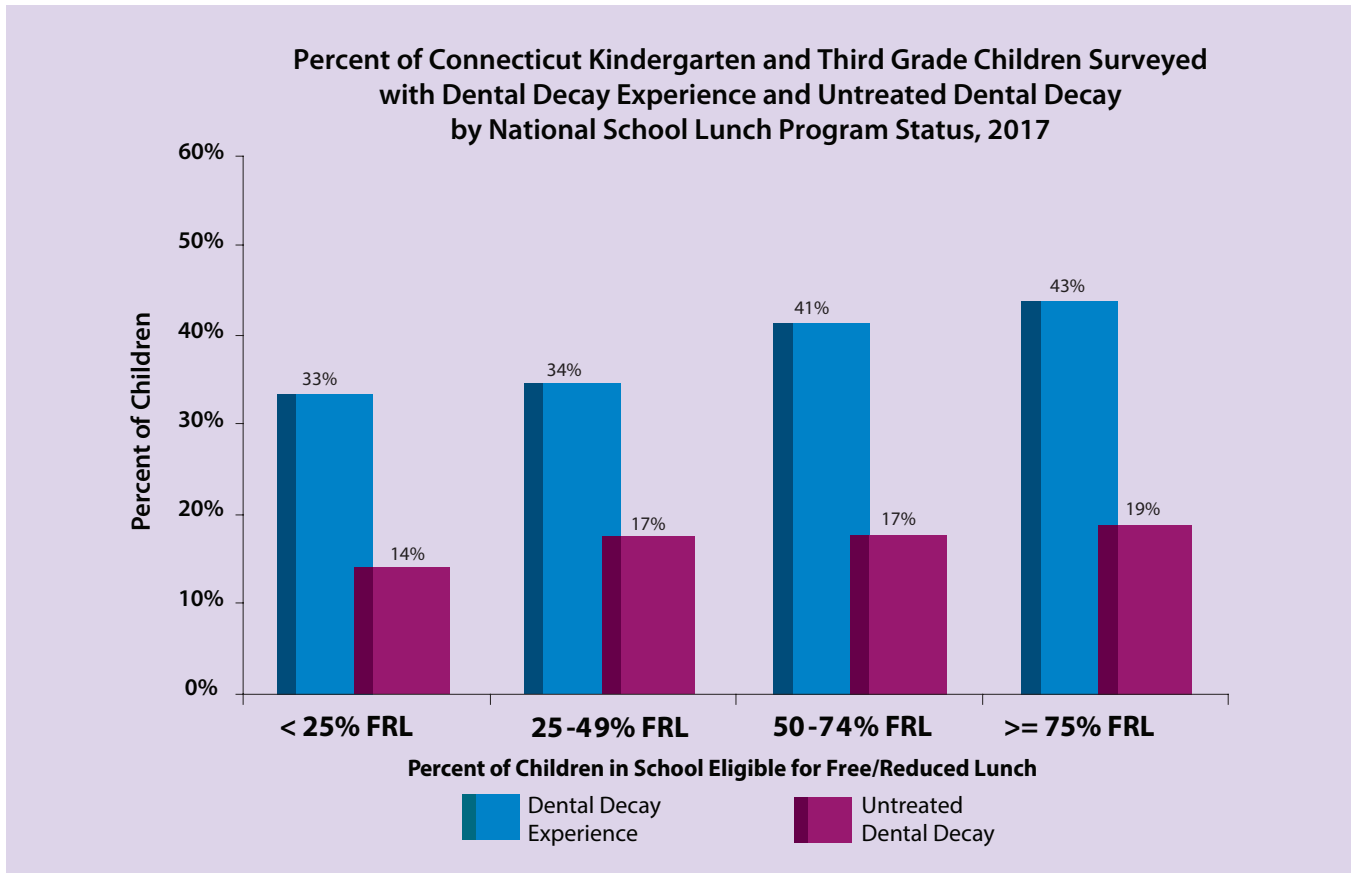
In Connecticut's *Every Smile Counts 2017* Survey, when compared to White and Black children, Hispanic, Asian, and Race or Ethnicity Unknown/Other children were 25% more likely to have dental decay experience. Likewise, when compared to White and Black children, children of other races surveyed experienced a higher prevalence of untreated dental decay.

Possible explanations for the oral health disparities in dental decay and untreated decay experiences in this study could be due to social determinants of health, including unequal access to quality health care that exists among specific population groups in Connecticut.<sup>12</sup> Social determinants of health are the conditions in which people are born, grow, live, work, age and die, and that includes health systems. This results in higher levels of disease and poor health outcomes.<sup>13</sup> Population groups such as the Hispanic and Asian children who experienced higher levels of dental decay and lacking treatment are among the vulnerable populations considered by the State Department of Public Health as "priority" populations.<sup>12</sup>





## Key Finding #5: There Are Socioeconomic Health Disparities in Levels of Dental Disease among Connecticut Children Surveyed in 2017.



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.<sup>14</sup> It is used here as an indicator of overall socioeconomic status. The percentage of children participating in the NSLP in each school was known.

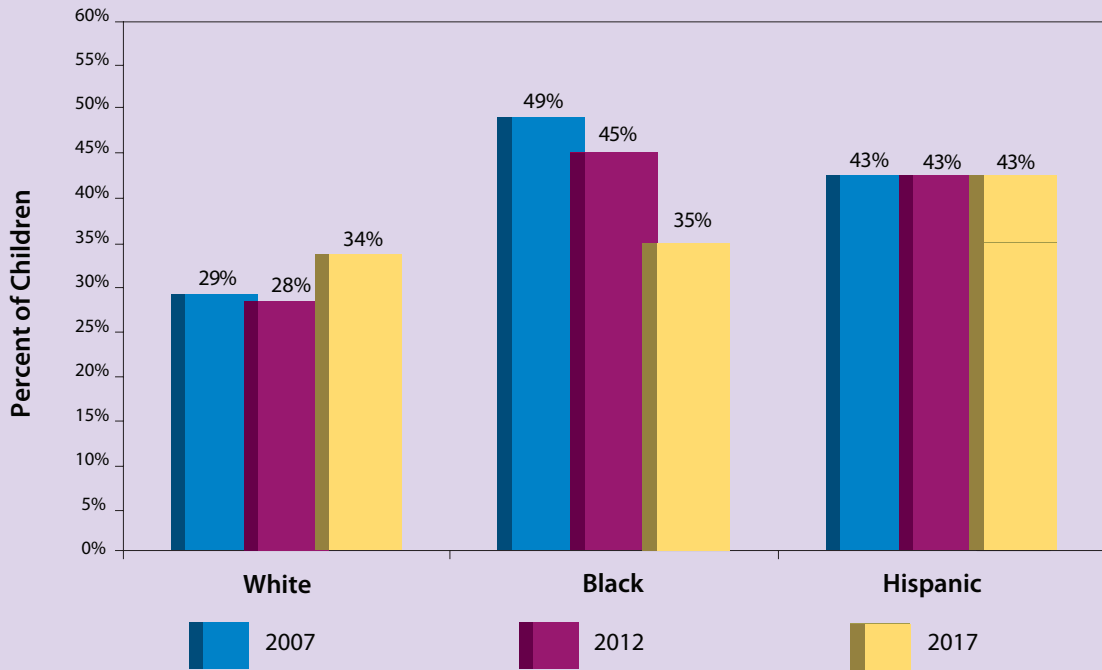
In the Connecticut schools surveyed, lower income schools had children with a higher level of dental decay experience. The surveyed children in the schools with 25% to 49% NSLP participation had 1.25 times likelihood to have untreated tooth decay than those in schools with a status of less than 25% NSLP participation. The likelihood of untreated tooth decay rose to 1.5 times for the schools with greater than 75% NSPL status.

It is important to note that the majority of schools that did not participate (6 out of 9 sampling intervals) had less than 25% of the children enrolled in the National School Lunch Program, which means that higher income schools were less likely to participate in the Survey. Since dental caries is associated with income, this may bias the results towards more dental disease.<sup>15</sup>



**Key Finding #6: Compared to Previous *Every Smiles Counts* Findings, There Are Changes to the Racial and Ethnic Health Disparities in Levels of Dental Decay Experience among Connecticut Children Surveyed.**

**Percent of Connecticut Kindergarten and Third Grade Children Surveyed with Dental Decay Experience by Race/Ethnicity and Years - 2007, 2012, 2017**



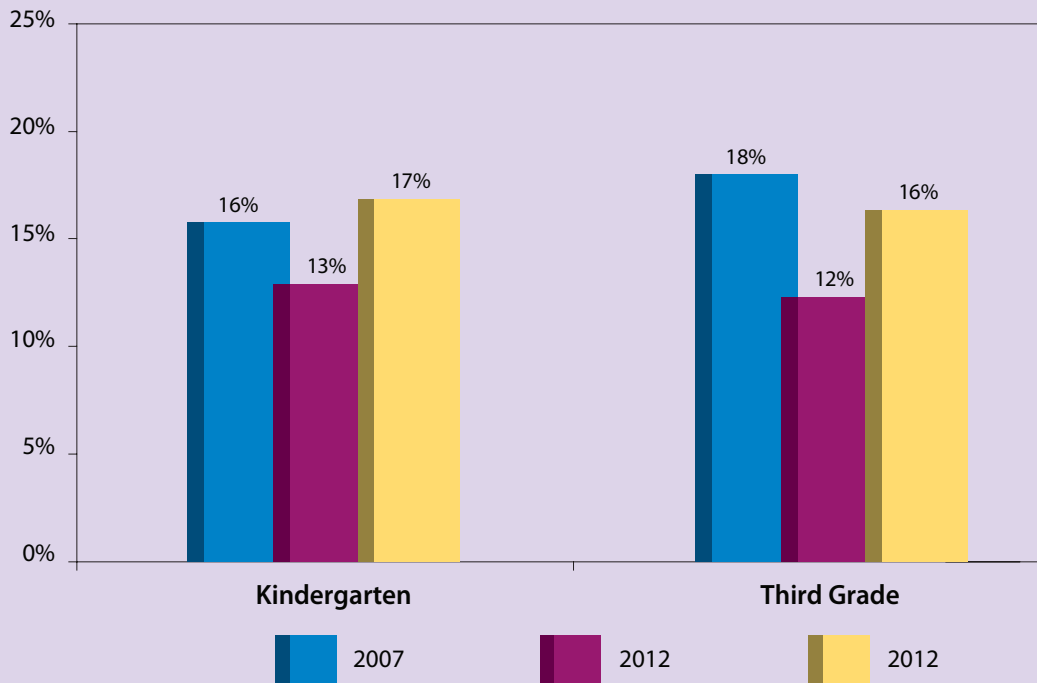
In the 2007, 2012 and 2017 *Every Smile Counts* reports spanning ten years, more than one-third of the children in the study had dental decay experience, with the highest number in 2017 at 37%. As noted in Key Finding #5, the *Every Smile Counts 2017* Survey had lower school participation, which could result in a higher decay experience reported for the population.

In 2017, 1 in 3 White and Black children had dental decay experience, and 4 out of 10 Hispanic children experienced dental decay. After controlling for Socioeconomic Status (SES), Hispanic children have a trend towards higher prevalence of dental decay experience when compared with White children, however, the difference is not statistically significant.



## Key Finding #7: Sixteen Percent of Connecticut Children Surveyed Have Untreated Dental Decay Compared to 14% in Previous *Every Smile Counts* Surveys.

Percent of Connecticut Children Surveyed with Untreated Tooth Decay by Grade and Years - 2007, 2012, and 2017



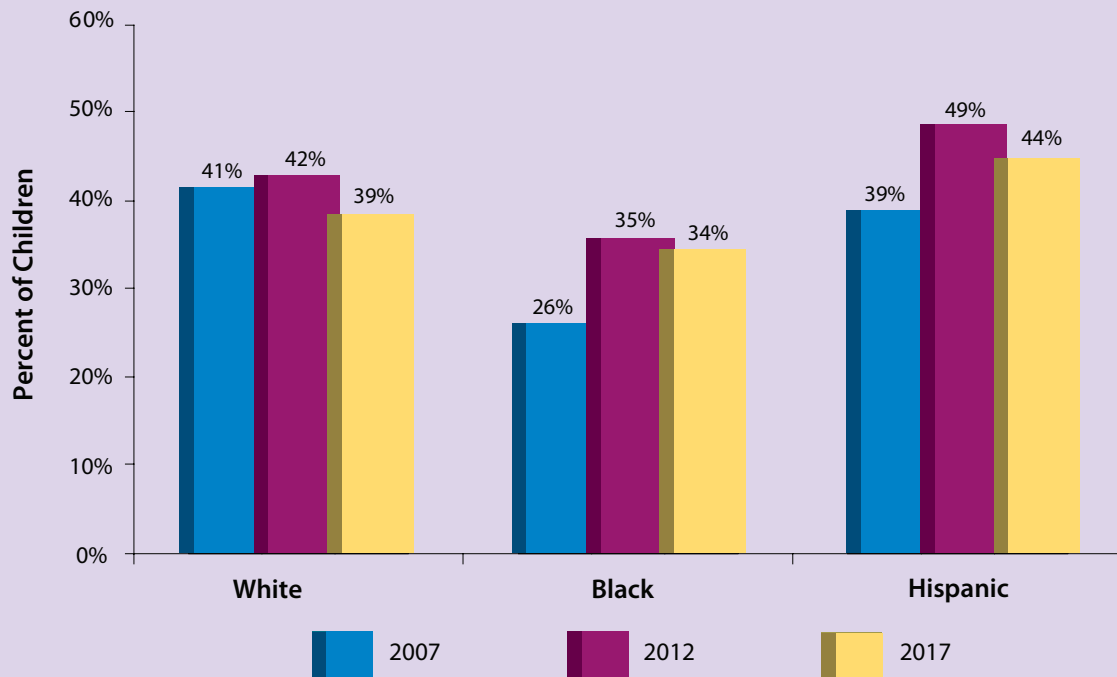
Approximately 1 out of 6 kindergarten and third grade children surveyed in Connecticut had untreated dental decay in 2017 compared to about 1 out of 8 in 2012. It is difficult to determine the reason for the *Every Smile Counts 2017* increase in the proportion of children surveyed with untreated dental decay; however, one reason may be related to having fewer schools surveyed than in past *Every Smile Counts* surveys. Also, the majority of the schools in the sample that did not participate (6 out of 9 sampling intervals) had higher socioeconomic levels, as measured by the National School Lunch Program status; this could result in a higher proportion of children surveyed with untreated decay.

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). While the cost of providing dental services increased, the reimbursement rate for HUSKY providers remained level from 2008 until a decrease of 2% in 2016. Further study will be necessary to see if the decrease in the HUSKY dental provider reimbursement rate has impacted the number of children with untreated tooth decay.



**Key Finding #8: Compared to Previous *Every Smile Counts* Findings, There Are Changes to the Racial and Ethnic Health Disparities in Levels of Connecticut Children Surveyed with Dental Sealants.**

**Percent of Connecticut Third Grade Children Surveyed with Dental Sealants by Race/Ethnicity, and Years - 2007, 2012 and 2017**

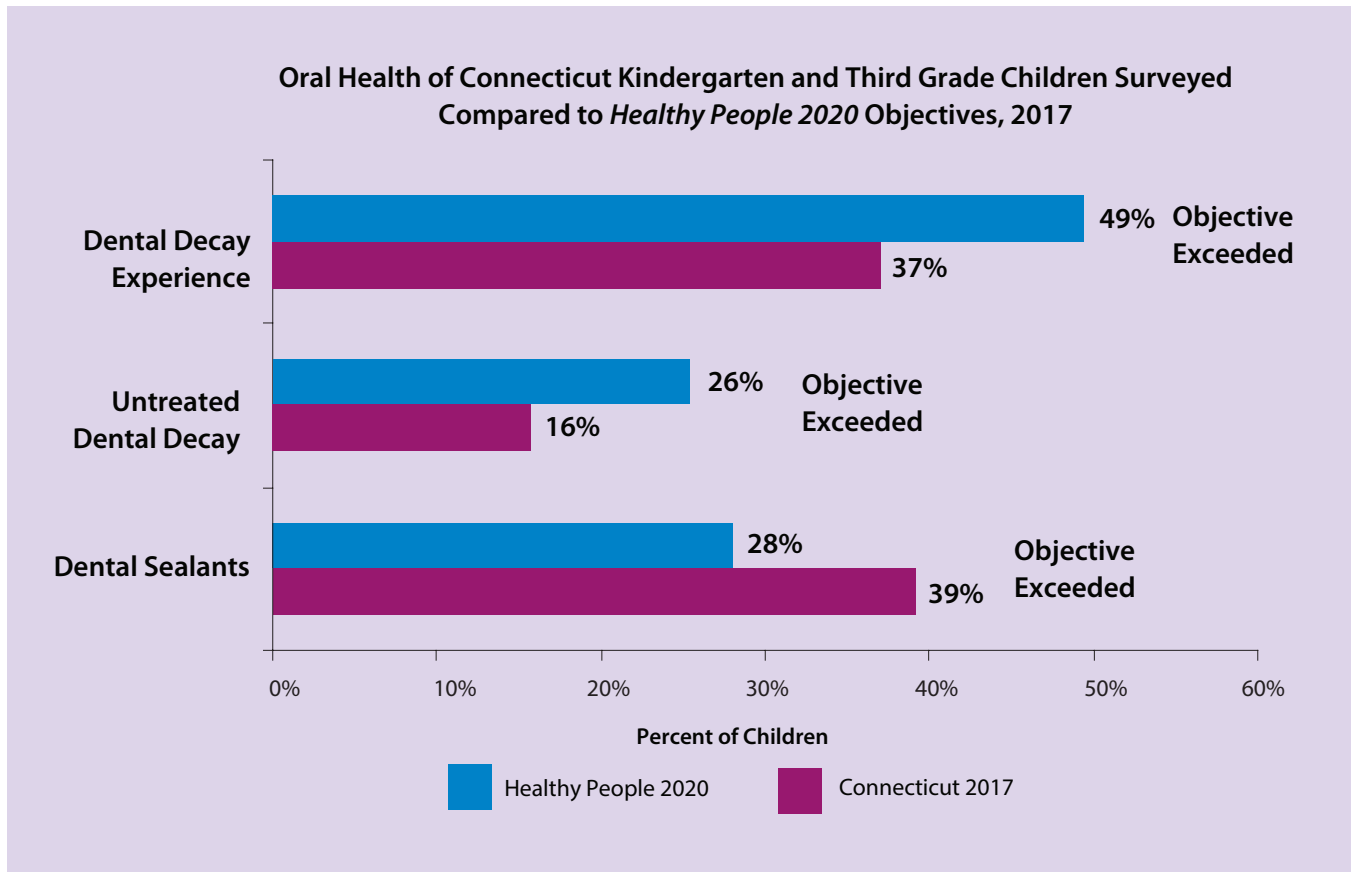


In 2017, the *Every Smiles Counts* health survey found that there was a decrease in the number of children who were observed to have a dental sealant, regardless of race or ethnicity. Hispanic children surveyed continue to have the highest rates of dental sealants, while Black Children surveyed have the lowest rates. Efforts are still needed to ensure that all Connecticut children receive age-appropriate dental sealants.

Many dental sealants are clear and may be undetectable during the *Every Smile Counts* 2017 visual exam; this may lead to a possible under reporting of children with dental sealants.



## Key Finding #9: Connecticut Exceeded the Healthy People 2020 Objectives for Reducing the Proportion of Children Aged 6 – 9 with Dental Decay Experience and Untreated Dental Decay and Increasing the Proportion of Third Grade Children with Dental Sealants.



Every decade, the *Healthy People* initiative develops a new set of science-based, 10-year national objectives with the goal of improving the health of all Americans.<sup>16</sup> *Healthy People 2020* outlined oral health status objectives for elementary school children, including:

- **OH-1.2:** Reduce the proportion of children aged 6-9 years who have dental caries experience in their primary or permanent teeth. Target: 49.0%
- **OH-2.2:** Reduce the proportion of children aged 6-9 years with untreated dental decay. Target: 25.9 %
- **OH-12.2:** Increase the proportion of children aged 6 to 9 years who have received dental sealants on one or more of their permanent first molar teeth. Target: 28.1%.<sup>17</sup>

Connecticut has met the *Healthy People 2020* objectives for all three categories, with results for kindergarten and third grade children at 37% for dental decay experience and 16% for untreated dental decay; and 39% for dental sealants for third graders only.

Note: In *Healthy People 2010*, the objective read: Increase the proportion of 8 year olds with dental sealants to 50%. *Healthy People 2020* has a lower target and they are using the age range of 6 – 9 years. Connecticut is using third grade data in which 97% of the children are ages 8 and 9 years.

## Parents and Families

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

- Practice good oral health habits to prevent oral disease for a lifetime.
- Learn about the benefits of drinking tap water with fluoride and when to begin brushing with fluoridated toothpaste.
- Eat healthy foods to contribute to a healthy mouth and body, while avoiding unhealthy foods that lead to dental decay and other poor health conditions.
- Establish a dental home for your child within six months of eruption of the first tooth and no later than 12 months of age, and continue through their lifetime.
- Seek out resources to learn how to use the dental health care system and advocate for you and your children.
- Learn how oral health impacts the overall health of your child throughout their lifetime.



## Providers

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

### All health professionals:

- Obtain education on the relationship between oral health and general health including your role in oral disease prevention.
- Recommend drinking community fluoridated water, or when the primary water source is deficient in fluoride, prescribe oral fluoride supplementation at currently recommended doses to preschool children older than age 6 months.
- Provide culturally and linguistically appropriate dental care by adopting appropriate National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care.

### Medical primary care providers:

- Adopt practices where primary care clinicians conduct an oral health assessment, provide oral health education, apply fluoride varnish when appropriate, and refer to a dental home.

- Promote dental exams before the age of one, as a minimum standard of dental care, particularly for moderate and high-risk children.

### Dental professionals:

- Provide a dental home starting before the age of one that offers comprehensive, continuously accessible, family-centered, coordinated, compassionate, and culturally-effective care for children, including acute care and preventive services.<sup>18</sup>
- Provide services in underserved areas and/or participate in Connecticut's HUSKY program (Medicaid/Children's Health Insurance Program).
- Increase the proportion of children who receive dental sealants on permanent molars.





## Policymakers

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

- Increase private and public-sector participation in mobilizing resources and developing policy to pursue and sustain strategies to improve oral health outcomes.
- Offer opportunities to educate health providers about the relationship between oral health and general health including their role in oral disease prevention.
- Promote systems to support dental exams before the age of one, as a minimum standard of dental care, particularly for moderate and high-risk children.
- Increase access to dental insurance for moderate and high-risk children and parents.
- Establish access to preschool and school-based dental programs.
- Increase capacity of dental public health at state and local levels.
- Increase or maintain an adequate number of licensed dental providers in underserved areas and/or participating in Connecticut's HUSKY program (Medicaid/Children's Health Insurance Program).
- Increase the number of dental sealants provided in schools, safety-net, and private dental settings.
- Develop an on-going campaign to promote oral health as part of general health and well-being for all ages and populations utilizing culturally and linguistically appropriate messaging.
- Increase oral health literacy.
- Integrate oral health into health and human services systems.
- Advance the systematic collection, analysis, and dissemination of Connecticut oral health data with appropriate race, ethnicity and data collection standards.
- Raise awareness and educate decision makers to implement new oral health/health policies.

## Survey Methods

*Every Smile Counts 2017* sampled children in kindergarten and third grade from March to June of 2017. The survey methods were developed to compute statewide estimates.

The sampling frame for the survey included all public schools in Connecticut with a kindergarten and/or third grade enrollment of 25 or more. Some communities have kindergarten and third grade in different schools. If both the kindergarten and third grade school were included in the sampling frame, children in these communities would have a higher probability of being selected. For this reason, the sampling frame was further limited to schools with only third grade, but the enrollment number used for selection included both kindergarten and third grade children. If a school with only 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 District Reference Group (DRG) and percent participation in the National School Lunch Program (NSLP). A systematic probability proportional to size sampling scheme was used to select a sample of 45 third grade schools. Seven of the selected third grade schools did not have kindergarten so the appropriate kindergarten feeder schools were added to the sample for a total of 52 schools representing 45 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 42 schools, representing 36 sampling intervals participated in the survey. Kindergarten and third grade data is available for 36 of the 45 sampling intervals identified by the Association of State and Territorial Dental Directors. This survey represents 15% of the districts in Connecticut.



The majority of schools that did not participate (6 out of 9 sampling intervals) had a National School Lunch Program status of <25% enrolled children which means that higher income schools were less likely to participate.

Active and/or passive consent forms were used for student participation. Of the 42 schools, 4 schools used active consent, while the remaining 38 schools used passive consent. Schools that used active consent had lower student participation compared to schools that used passive consent. The consent forms and result forms that were sent to the parent after the screenings were drafted in English, Spanish, and Brazilian-Portuguese. With the exception of the four schools where returned positive consent forms were required to participate in the screening, all children enrolled and present on the day of the screening were examined unless a signed consent form was received from a parent requesting that their child not participate.

## Survey Methods (cont.)

Registered Dental Hygienists completed the screenings using gloves, penlights, and disposable mouth mirrors or tongue depressors. They used the diagnostic criteria outlined in the Association of State and Territorial Dental Director's *Basic Screening Survey for Children Planning and Implementation Tool Kit*.<sup>18</sup> The screeners and recorders attended a full-day training session, which included didactic review of the diagnostic criteria along with a visual calibration session.

Information on the child's age was obtained from the child or the child's teacher while the screener or recorder determined the gender and race/ethnicity.

Upon screening completion, each child regardless of screening status received a toothbrush. Only students who participated in the screening also received a result form to be given to the parent that informed them if their child needed to have immediate follow-up with a dentist within 24-48 hours, within a month, or to continue with six month visits. If a parent needed assistance with locating a dental provider, contact information was listed to obtain assistance.

Of the 5,796 children enrolled in the 42 participating schools, 4,423 had a dental screening or had their height/weight measured for a child response rate of 76%. Kindergarten

had 2,757 enrolled, 2,186 screened, with a response rate of 79%. Third grade had 3,039 enrolled, 2,237 screened, with a response rate of 74%. 4,418 students received a dental screening while five children refused the oral screening.

All data analyses were completed using the complex survey procedures within SAS 9.3 (e.g. Proc SurveyFreq) with the Strata = District Reference Group 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 with a screening divided by the number in sampling interval. Unless otherwise noted, all results are weighted for the complex sampling scheme.



**Table 1.1**  
**Age, Gender, Race/Ethnicity and School NSLP Participation of Kindergarten and Third Grade Children Receiving an Oral Health Screening.**

	Kindergarten (n=2,184)	Third Grade (n=2,234)	Total (n=4,418)
<b>Age</b>			
Mean	5.39 years	8.4 years	6.89 years
Median	5 years	8 years	8 years
Mode	5 years	8 years	8 years
Range	5 - 13 years	5 - 13 years	5 - 13 years
<b>Gender (% of children)</b>			
Female	48.6	50.9	49.8
Male	51.2	48.9	50.1
<b>Race/Ethnicity (% of children)</b>			
White	54.5	53.3	53.9
Black	13.0	14.0	13.5
Hispanic	26.4	27.4	26.9
Asian	4.5	4.2	4.4
American Indian	0.3	0.2	0.2
Multiracial	1.4	0.6	1.0
Other/Unknown	0.1	0.2	0.1
<b>School NSLP Participation (% of children)</b>			
Less than 25%	36.1	36.1	36.1
25% to 49%	19.5	22.2	20.8
50% - 74%	22.2	19.5	20.8
Greater than 75%	22.2	22.2	22.2

**Table 1.2**  
**Oral Health Status of Connecticut's Kindergarten and Third Grade**  
**Children Stratified by Grade**  
**(95% Confidence Interval)**

	Kindergarten (n=2,184)	Third Grade (n=2,234)	Total (n=4,418)
<b>Decay Experience</b>			
% with dental caries experience - all teeth	32.0 (28.2 - 35.9)	41.5 (37.2 - 45.8)	36.8 (33.3 - 40.2)
% with untreated dental decay - all teeth	17.3 (14.7 - 20.0)	15.5 (12.5 - 18.5)	16.4 (14.0 - 18.8)
% with untreated dental decay - permanent teeth		4.5 (2.4 - 6.6)	
% with rampant tooth decay	6.9 (4.9 - 8.9)	7.5 (4.4 - 10.6)	7.2 (5.2 - 9.2)
<b>Treatment Need</b>			
% needing early or urgent dental care	16.5 (13.9 - 19.1)	14.3 (11.7 - 16.9)	15.4 (13.3 - 17.5)
% needing urgent dental care	2.0 (1.1 - 2.9)	2.8 (0.9 - 4.8)	2.4 (1.4 - 3.5)
<b>Preventive Treatment</b>			
% with dental sealants		38.8 (33.6 - 44.0)	

**Table 1.3**  
**Need for Dental Treatment**  
**(% of Children)**

	Kindergarten (n=2,184)	Third Grade (n=2,234)	Total (n=4,418)
No early or urgent dental care needed	83.5	85.7	84.6
Needs early dental care	14.5	11.5	13.0
Needs urgent dental care	2.0	2.8	2.4

**Table 1.4A**  
**Oral Health Status of Connecticut's Kindergarten Children**  
**Stratified by Race/Ethnicity**  
**(95% Confidence Interval)**

	White (n=1257)	Black (n=243)	Hispanic (n=559)	Asian (n=90)	Other/ Unknown (n=35)
% with dental caries experience	29.3 (23.6 - 34.9)	26.0 (17.0 - 35.0)	39.4 (31.4 - 47.4)	35.4 (23.4 - 47.3)	43.6 (31.0 - 56.1)
% with untreated dental decay	16.2 (12.0 - 20.3)	11.7 (6.1 - 17.3)	21.9 (16.3 - 27.5)	17.2 (7.4 - 27.0)	27.7 (18.9 - 36.5)
% with rampant tooth decay	6.2 (4.1 - 8.3)	6.7 (1.3 - 12.0)	7.5 (4.0 - 11.0)	11.0 (2.9 - 19.2)	12.1 (1.2 - 23.0)
% needing early or urgent dental care	15.1 (10.9 - 19.3)	12.3 (6.8 - 17.9)	20.9 (15.5 - 26.4)	16.0 (5.9 - 26.2)	25.7 (16.0 - 35.3)
% needing urgent dental care	1 (0.2 - 1.9)	2.2 (0.0 - 4.6)	4.1 (1.6 - 6.5)	.3 (0.2 - 0.5)	4.4 (0 - 12.2)

**Table 1.4B**  
**Oral Health Status of Connecticut's Third Grade Children**  
**Stratified by Race/Ethnicity**  
**(95% Confidence Interval)**

	White (n = 1,314)	Black (n = 254)	Hispanic (n = 535)	Asian (n = 98)	Other/ Unknown (n=16)
% with dental caries experience - all teeth	38.0 (32.3 - 43.7)	43.7 (36.1 - 51.3)	45.6 (37.7 - 53.5)	52.4 (39.5 - 65.3)	38.5 (22.5 - 54.5)
% with untreated dental decay - all teeth	14.1 (11.4- 16.9)	15.9 (5.4 - 26.4)	17.1 (9.9 - 24.3)	22.3 (7.0 - 37.6)	11.8 (0.0 - 25.6)
% with untreated dental decay - permanent teeth	3.0 (2.0 - 4.0)	10.4 (0.0 - 22.0)	4.6 (0.5 - 8.8)	4.3 (0.0 - 8.6)	
% with rampant tooth decay	5.9 (3.3 - 8.4)	15.5 (2.7 - 28.4)	5.1 (1.9 - 8.3)	17.2 (1.1 - 33.2)	6.9 (0.0 - 19.9)
% with dental sealants	38.3 (33.2 - 43.3)	33.8 (18.4 - 49.1)	43.9 (34.2 - 53.5)	31.5 (23.2 - 39.8)	26.2 (0.0 - 52.6)
% needing early or urgent dental care	12.0 (9.7 - 14.4)	16.3 (5.9 - 26.6)	16.8 (9.4 - 24.1)	21.8 (6.8 - 36.9)	10.3 (0.0 - 24.3)
% needing urgent care	1.2 (0.6 - 1.9)	8.8 (0.0 - 20.7)	2.1 (0.0 - 4.1)	9.1 (0.0 - 22.6)	

**Table 1.4C**  
**Oral Health Status of Connecticut’s Kindergarten and Third Grade Children**  
**Stratified by Race/Ethnicity**  
**(95% Confidence Interval)**

	White (n = 2,571)	Black (n = 497)	Hispanic (n = 1,094)	Asian (n = 188)	Other/ Unknown (n=17)
% with dental caries experience	33.6 (29.2 - 37.9)	35.2 (29.9 - 40.4)	42.6 (35.4 - 49.7)	43.6 (33.0 - 54.3)	41.7 (32.5 - 50.8)
% with untreated dental decay	15.2 (12.5 - 17.8)	13.9 (9.3 - 18.5)	19.4 (14.1 - 24.8)	19.7 (9.9 - 29.4)	21.7 (15.2 - 28.1)
% with rampant tooth decay	6.0 (4.4 - 7.7)	11.3 (4.7 - 17.9)	6.3 (3.3 - 9.3)	14.0 (3.7 - 24.4)	10.1 (2.2 - 18.1)
% needing early or urgent dental care	13.6 (11.1 - 16.0)	14.4 (9.8 - 19.0)	18.8 (13.4 - 24.2)	18.9 (9.3 - 28.4)	19.9 (13.2 - 26.5)
% needing urgent dental care	1.1 (0.5 - 1.7)	5.6 (0.0 - 11.8)	3.0 (1.1 - 5.0)	4.6 (0.0 - 11.0)	2.6 (0.0 - 7.9)

**Table 1.5A**  
**Oral Health Status of Connecticut’s Kindergarten Children**  
**Stratified by National School Lunch Program (NSLP) Status of School**  
**(95% Confidence Interval)**

	“Higher income” <25% FRL (n=895)	25 - 49% (n=363)	50 - 74% (n=504)	“Lower income” >75% (n=422)
% with dental caries experience	28.5 (21.6 - 35.5)	28.0 (21.3 - 34.8)	37.4 (29.2 - 45.7)	35.9 (30.0 - 41.8)
% with untreated dental decay	16.1 (11.0 - 21.2)	16.1 (12.0 - 20.2)	17.2 (11.3 - 23.1)	20.5 (15.0 - 26.1)
% with rampant tooth decay	4.9 (2.5 - 7.2)	6.9 (3.0 - 10.7)	10.2 (3.9 - 16.6)	7.0 (2.5 - 11.4)
% needing early or urgent dental care	14.9 (9.6 - 20.3)	14.7 (12.0 - 17.3)	16.7 (11.3 - 22.1)	20.5 (15.1 - 25.9)
% needing urgent dental care	0.7 (0.1 - 1.4)	2.4 (0.4 - 4.3)	1.8 (0.7 - 3.0)	3.9 (0.7 - 7.2)



**Table 1.5B**  
**Oral Health Status of Connecticut's Third Grade Children**  
**Stratified by National School Lunch Program (NSLP) Status of School**  
**(95% Confidence Interval)**

	"Higher income" <25% FRL (n=966)	25 - 49% (n=468)	50 - 74% (n=418)	"Lower income" >75% (n=382)
% with dental caries experience - all teeth	36.6 (29.4 – 43.8)	39.1 (30.7 – 47.6)	44.4 (40.1 – 48.7)	49.4 (38.3 – 60.4)
% with untreated dental decay - all teeth	11.7 (10.2 – 13.3)	17.5 (9.1 – 25.9)	16.9 (11.0 – 22.9)	18.4 (9.2 – 27.6)
% with untreated dental decay - permanent teeth	2.5 (1.3 – 3.6)	4.4 (1.6 – 7.1)	2.6 (0.5 – 4.7)	9.5 (0.9 – 18.2)
% with rampant tooth decay	5.5 (1.8 – 9.1)	8.5 (2.7 – 14.4)	10.1 (2.1 – 18.1)	7.6 (0.0 – 16.0)
% needing early or urgent dental care	9.9 (8.2 – 11.7)	14.3 (8.5 – 20.1)	18.2 (12.8 – 23.7)	18.0 (8.6 – 27.4)
% needing urgent care	0.6 (0.0 – 1.2)	2.7 (1.7 – 3.8)	3.2 (0.8 – 5.6)	6.2 (0.0 – 14.4)
% with dental sealants	41.9 (36.1 – 47.7)	29.7 (22.1 – 37.2)	44.0 (32.5 – 55.5)	38.2 (21.4 – 55.0)

**Table 1.5C**  
**Oral Health Status of Connecticut’s Kindergarten and Third Grade Children**  
**Stratified by National School Lunch Program (NSLP) Status of School**  
**(95% Confidence Interval)**

	“Higher income” <25% FRL (n=1,861)	25 - 49% (n=831)	50 - 74% (n=922)	“Lower income” >75% (n=804)
% with dental caries experience	32.5 (27.0 – 38.1)	33.9 (26.3 – 41.5)	40.7 (35.5 – 45.9)	42.6 (34.9 – 50.4)
% with untreated dental decay	13.9 (11.3 – 16.5)	16.9 (10.7 – 23.0)	17.1 (12.2 – 21.9)	19.4 (12.4 – 26.5)
% with rampant tooth decay	5.2 (3.4 – 7.0)	7.7 (3.3 - 12.2)	10.2 (4.2 – 16.1)	7.3 (2.6 – 12.0)
% needing early or urgent treatment	12.4 (9.7 – 15.2)	14.5 (10.7 – 18.3)	17.4 (13.1 – 21.7)	19.2 (12.1 – 26.3)
% needing urgent care	0.7 (0.1 – 1.2)	2.6 (1.2 – 4.0)	2.5 (1.3 – 3.7)	5.1 (1.0 – 9.2)

**Table 1.6A**  
**Oral Health Status of Connecticut’s Kindergarten Students:**  
**Comparison of *Every Smile Counts* Reports from 2007, 2012 and 2017)**  
**(95% Confidence Interval)**

	2007 (n=4315)	2012 (n=4069)	2017 (n=2,184)
% with dental caries experience	27.3 (24.4 – 30.1)	28.6 (25.3 – 31.8)	32.0 (28.2 – 35.9)
% with untreated dental decay	15.5 (12.9 – 18.0)	12.5 (10.4 – 14.6)	17.3 (14.7 – 20.0)
% with rampant tooth decay	9.1 (7.6 – 10.7)	9.2 (7.3 – 11.1)	6.9 (4.9 – 8.9)
% needing early or urgent dental care	12.2 (9.7 – 14.6)	11.6 (9.7 – 13.5)	16.5 (13.9 – 19.1)

**Table 1.6B**  
**Oral Health Status of Connecticut’s Third Grade Students:**  
**Comparison of *Every Smile Counts* Reports from 2007, 2012 and 2017)**  
**(95% Confidence Interval)**

	2007 (n=4,440)	2012 (n=4,339)	2017 (n=2,234)
% with dental caries experience - all teeth	40.6 (36.3 – 44.8)	39.6 (36.5 - 42.7)	41.5 (37.2 – 45.8)
% with untreated dental decay - all teeth	17.8 (14.8 – 20.8)	11.7 (14.8 – 20.8)	15.5 (12.5 – 18.5)
% with rampant tooth decay	13.6 (11.4 – 15.9)	13.3 (11.1 – 16.5)	7.5 (4.4 – 10.6)
% needing early or urgent dental care	12.5 (10.1 – 14.9)	12.6 (9.4 – 15.8)	9.9 (8.2 – 11.7)
% with dental sealants	38.1 (34.3 – 42.0)	42.6 (38.6 – 46.6)	38.8 (33.6 – 44.0)

**Table 1.6C**  
**Oral Health Status of Connecticut’s Kindergarten and Third Grade Students:**  
**Comparison of *Every Smile Counts* Reports from 2007, 2012 and 2017)**  
**(95% Confidence Interval)**

	2007 (n=8,755)	2012 (n=8,410)	2017 (n=4,418)
% with dental caries experience	34.1 (31.4 – 36.9)	34.3 (31.5 – 37.0)	36.8 (33.3 – 40.2)
% with untreated dental decay	16.7 (14.2 – 19.1)	12.1 (10.5 – 13.7)	16.4 (14.0 – 18.8)
% with rampant tooth decay	11.5 (9.9 – 13.0)	11.3 (9.5 – 13.1)	7.2 (5.2 – 9.2)
% needing early or urgent dental care	12.4 (10.3 – 14.5)	12.1 (10.1 – 14.3)	15.4 (13.3 – 17.5)

**Table 1.7A**  
**Oral Health Status of Connecticut’s White Students:**  
**Comparison of *Every Smile Counts* Reports from 2007, 2012 and 2017)**  
**(95% Confidence Interval)**

	2007 (n=5,579)	2012 (n=5,164)	2017 (n=4,418)
% with dental caries experience	28.9 (26.4 - 31.3)	28.1 (25.9 - 30.3)	33.6 (9.2 - 37.9)
% with untreated dental decay	13.0 (10.7 - 15.3)	8.9 (7.6 - 10.2)	15.2 (12.5 - 17.8)
% with rampant tooth decay	7.9 (6.6 - 9.1)	8.0 (6.7 - 9.3)	6.0 (4.4 - 7.7)
% needing early or urgent dental care	9.1 (7.5 - 10.6)	9.5 (7.1 - 11.9)	13.6 (11.1 - 16.0)
% with dental sealants - Third Grade only	40.9 (36.7 - 45.0)	41.9 (38.0 - 45.9)	38.3 (33.6 - 44.0)

**Table 1.7B**  
**Oral Health Status of Connecticut’s Black Students:**  
**Comparison of *Every Smile Counts* Reports from 2007, 2012 and 2017)**  
**(95% Confidence Interval)**

	2007 (n=859)	2012 (n=1,644)	2017 (n=1,094)
% with dental caries experience	49.3 (43.7 - 55.0)	45.3 (41.3 - 49.4)	42.6 (35.4 - 49.7)
% with untreated dental decay	26.9 (22.1 - 31.7)	16.9 (22.1 - 31.7)	13.9 (9.3 - 18.5)
% with rampant tooth decay	18.1 (11.3 - 34.9)	16.5 (13.0 - 20.1)	6.3 (3.3 - 9.3)
% needing early or urgent dental care	15.3 (8.5 - 22.2)	15.1 (11.8 - 18.4)	18.8 (13.4 - 24.2)
% with dental sealants - Third Grade only	25.5 (20.3 - 30.7)	34.9 (28.6 - 41.3)	33.8 (13.4 - 49.1)

**Table 1.7C**  
**Oral Health Status of Connecticut’s Hispanic Students:**  
**Comparison of *Every Smile Counts* Reports from 2007, 2012 and 2017)**  
**(95% Confidence Interval)**

	2007 (n=938)	2012 (n=997)	2017 (n=497)
% with dental caries experience - all teeth	42.8 (37.6 - 48.0)	43.3 (39.5 - 46.6)	35.2 (29.9 - 40.4)
% with untreated dental decay - all teeth	25.0 (20.6 - 29.4)	18.1 (15.6 - 20.5)	13.9 (9.3 - 18.5)
% with rampant tooth decay	16.4 (13.2 - 19.6)	17.4 (14.8 - 20.0)	11.3 (4.7 - 17.9)
% needing early or urgent dental care	19.8 (16.4 - 23.2)	18.3 (15.7 - 20.8)	14.4 (9.8 - 19.0)
% with dental sealants - Third Grade only	38.8 (28.1 - 49.4)	48.7 (40.3 - 57.1)	43.9 (34.2 - 53.5)



## Definition of Terms

### **Dental Caries (or Dental decay)**

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 (or Dental Decay)**

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 bottle continuously for nursing, bacterial saliva contamination from mother or caregiver, and/or frequent ingestion of sugar and starches.

### **National School Lunch Program (NSLP)**

The National School Lunch Program is a federally assisted meal program operating in public and nonprofit private schools and residential child care institutions. It provides nutritionally balanced, low-cost or free lunches to children each school day.<sup>16</sup> NSLP replaces the Free and Reduced Lunch (FRL) program referenced in previous Every Smile Counts reports.

### **Rampant Tooth Decay**

Presence of five or more teeth that have untreated tooth 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 Tooth 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 dental care.

### Association of State & Territorial Dental Directors

<http://www.astdd.org/>

- Basic screening surveys
- Dental public health policy

### Centers for Disease Control and Prevention

<https://www.cdc.gov/OralHealth/index.html>

- Oral health basics
- Community Water Fluoridation

### Children's Dental Health Project

<https://www.cdhp.org/>

- 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

### 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 Dental Hygienists' Association

<https://www.cdha-rdh.com/>

203-210-5600

- Dental hygiene resources

### Connecticut Department of Public Health, Office of Oral Health

<http://www.ct.gov/dph>

860-509-8251

- 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>

860-424-5342

- Medicaid/HUSKY

### Connecticut Oral Health Initiative, Inc.

<http://www.ctoralhealth.org/>

860-246-2644

- Oral health advocacy

### Connecticut Primary Care Association

<http://www.ctpca.org/>

- Community health centers

### Connecticut State Dental Association

<http://www.csda.com/>

860-378-1807

- Dental resources
- CT Mission of Mercy Free Dental Clinics

### Goodwin College, Dental Hygiene

<http://www.goodwin.edu>

800-889-3282

- Dental hygiene school
- Preventive dental services

### Healthy People

<https://www.healthypeople.gov/>

- Healthy People 2020 Objectives

### HRSA Maternal and Child Health Bureau

<https://mchb.hrsa.gov/>

- Funding opportunities
- Maternal & Child Health Topics
- Programs and Initiatives
- Data, Research & Epidemiology

### Lincoln College of New England, Dental Hygiene

<http://www.lincolncollegene.edu>

860-426-0467

- Dental hygiene school
- Preventive dental services

### National Health Service Corps

<https://www.nhsc.hrsa.gov/>

- Federal loan repayment program
- Scholarships

### The PEW Charitable Trusts

<http://www.pewtrusts.org/en>

- Public policy
- 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 services

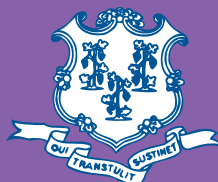


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**August 2017**