Connecticut Health FOUNDATION

Changing Systems, Improving Lives.

POLICY *Brief*

FEBRUARY 2016

Greater Access to Dental Services Reduces Health Inequities and Boosts Sealant Use Among HUSKY-Insured Children

FINDINGS

- **Dental sealants were provided more frequently to HUSKY-insured children who accessed dental services in 2012 than in 2006**
- **Black and Hispanic children living in urban areas experienced the highest sealant application rates**
- **Sealant use improved overall oral health by decreasing the need for future dental treatments**
- **Elevated provider reimbursement rates, streamlined provider enrollment procedures and outreach increased private dentist participation and improved HUSKY-insured children's access to routine dental care**

CAN PUBLIC POLICY CHANGES IMPROVE CHILDREN'S ORAL HEALTH?

Changes to Connecticut's Medicaid program (HUSKY) in 2008 provided a unique opportunity to examine the impact of new policies on the oral health outcomes of low-income children. Higher Medicaid reimbursement rates, streamlined provider enrollment procedures for participating dentists, as well as outreach to communities, individuals and dentists helped expand access to dental services and remedy Connecticut's most common and treatable chronic childhood disease—tooth decay.

According to a 2012 Connecticut Department of Public Health (DPH) statewide survey, 40 percent of third graders have dental decay,[1] and the rate among low-income children is four times that of high-income children.[2] In Connecticut, Black and Hispanic children are more likely to have untreated decay when compared with non-Hispanic Caucasian children.[3]

The good news is dental sealants—protective plastic coatings dentists apply to the biting surface of first permanent molars—can lower decay rates and improve overall oral health, especially among Black and Hispanic children who represent 61 percent of all children insured under HUSKY.

In Connecticut, Black and Hispanic children are more likely to have untreated decay

A multi-year (2006–2012) analysis of Medicaid data and dental sealant utilization among 6 and 7-year-old children continuously enrolled in HUSKY illustrates the impact of public policy changes on oral health outcomes (see Methodology in Appendix). More specifically, this examination demonstrates the following:

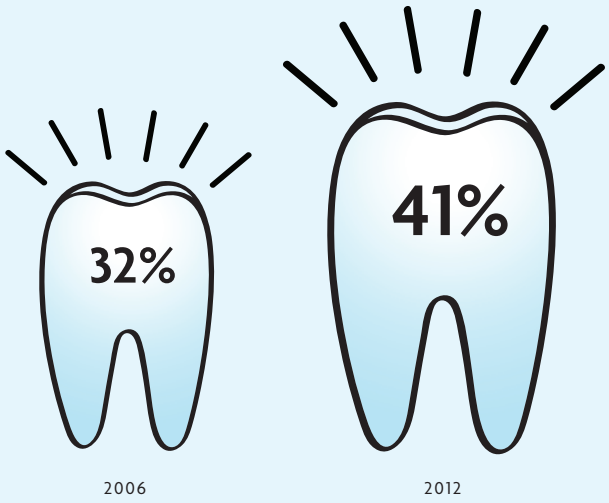
- 74 percent of 7-year-olds continuously enrolled in HUSKY received a dental exam in 2012 compared with 51 percent in 2006 due, in part, to increased Medicaid reimbursement rates, outreach and simplified provider enrollment procedures
- As more low-income children received regular dental exams, more continuously-enrolled 6-year-olds received molar sealants (41 percent in 2012 compared with 32 percent in 2006)
- Sealants decreased the need for future dental treatments (e.g., fillings, root canals and tooth extractions) by 20 percentage points
- Public policy changes were successful in improving the overall oral health of HUSKY-insured children (through more sealant applications) and reducing dental health inequities

The fact that low-income children were receiving sealants at a similar rate to the general population represents a significant improvement from 2006.

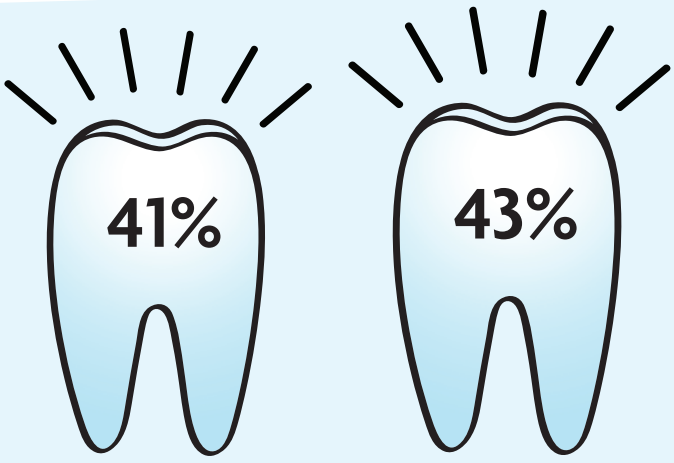
HOW DID HUSKY PROGRAM MODIFICATIONS AFFECT CHILDREN'S ORAL HEALTH?

HUSKY-insured children who had regular dental visits were more likely to receive decay-preventing sealants in 2012 than in 2006. The percent of low-income children who received a dental examination jumped from 51 percent in 2006 to 74 percent in 2012. Since HUSKY-insured children received more dental exams, more dental sealants were applied. In 2012, 41 percent of children who obtained a dental exam received at least one dental sealant compared with 32 percent in 2006.

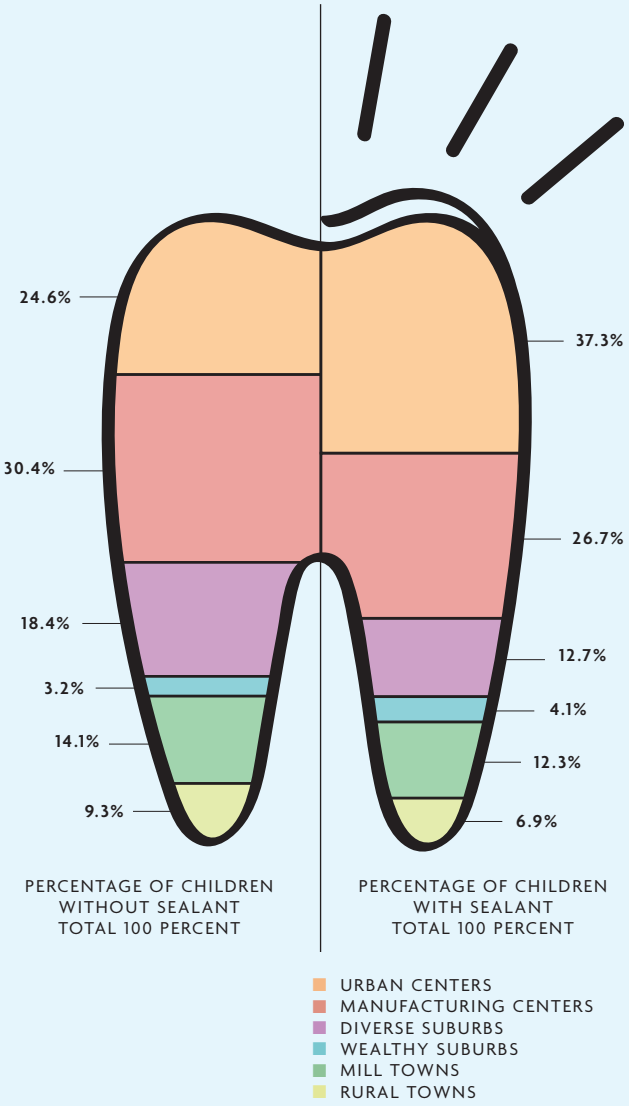
HUSKY-INSURED CHILDREN (AGE 7) WITH A DENTAL EXAM AND AT LEAST ONE MOLAR SEALANT



A statewide survey found that 43 percent of all third graders (ages 7-9) had sealants, a rate close to the 41 percent sealant utilization rate among HUSKY-insured children.[4] The fact that low-income children were receiving sealants at a similar rate to the general population represents a significant improvement from 2006.



DISTRIBUTION OF HUSKY-INSURED CHILDREN (AGE 6) WITH AND WITHOUT DENTAL SEALANT BY HEALTH REFERENCE GROUP 2009



Expanding sealant use is an effective and efficient strategy to improve the overall oral health of all low-income children.

ORAL HEALTH OUTCOMES WITH AND WITHOUT SEALANTS

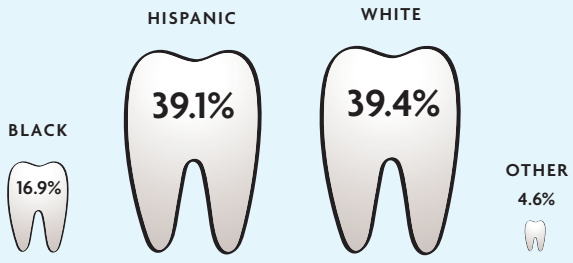
The data analysis revealed that Black and Hispanic children who lived in urban health reference groups (i.e., communities with similar demographic profiles that have been grouped together to analyze statewide data)[5] experienced the highest sealant application rates.

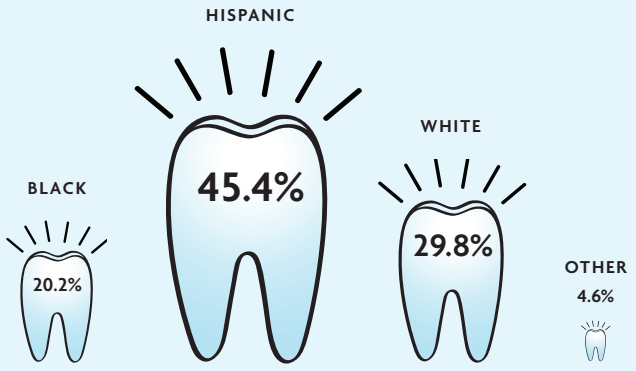
Since children of color living in urban areas are at higher risk for dental disease,[6] expanding sealant use is an effective and efficient strategy to improve the overall oral health of all low-income children, and diminish decades of dental health inequities based on race/ethnicity.

SEALANTS PREVENT FUTURE DENTAL TREATMENT

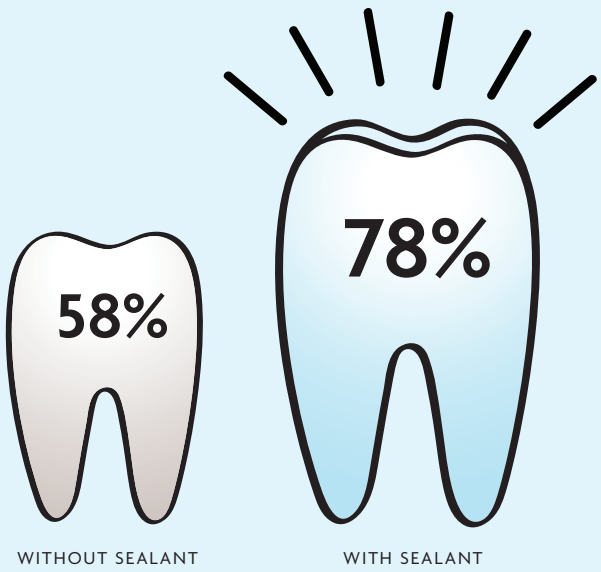
The study also demonstrated that sealant use reduced costly future treatments and improved health outcomes among children insured under HUSKY. During follow-up visits, children who had at least one sealant in 2009 required additional treatment (e.g., fillings, root canals or extractions) only 22 percent of the time, while children without sealants needed additional treatment 42 percent of the time. This finding was not affected by gender, race/ethnicity, residence or the number of previous fillings or tooth extractions.

DISTRIBUTION OF HUSKY-INSURED CHILDREN (AGE 6) WITH AND WITHOUT DENTAL SEALANT BY RACE/ETHNICITY 2009





PERCENTAGE OF MOLARS THAT REQUIRED NO FILLINGS, ROOT CANALS OR EXTRACTIONS: 2009–2012



Children with traditional fillings that are used to treat cavities (caused by tooth decay) will need ongoing treatment throughout their lives. Fillings are not a one-time treatment—they often need replacement due to typical wear and tear, breakage or new tooth decay. Sealants reduce the need for fillings in the short term and improve oral health in the long term.

MEDICAID ORAL HEALTH REIMBURSEMENT RATES: A BRIEF HISTORY

Children must visit dental professionals regularly to prevent decay and ensure individual treatment strategies are effective. Since poor oral health impacts overall health, legal advocates filed a federal lawsuit in 2000 on behalf of HUSKY-insured children who could not access routine dental care. Many private dentists cited low reimbursement rates (which had not been raised in more than 7 years) and cumbersome Medicaid enrollment procedures as obstacles to treating HUSKY-insured children.

Based on the 2008 lawsuit settlement agreement, the Connecticut Department of Social Services (DSS) simplified enrollment procedures, raised provider reimbursement rates to the 70th percentile of 2005 private insurance fees and conducted extensive provider and community outreach. These state policy changes, along with robust dental trade organization recruitment efforts, contributed to an upsurge in dental service utilization rates among continuously-enrolled HUSKY A children from 46 percent in 2006 to 69.5 percent in 2011.[8]

WHAT SHOULD BE DONE TO SUSTAIN IMPROVEMENTS IN CHILDREN'S ORAL HEALTH?

Expanding sealant application rates among HUSKY-insured children improves oral health and reduces dental health inequities. While sealant applications increased among all HUSKY-insured children between 2006 and 2012, utilization rates for Black children totaled only 20.2 percent compared with 45.5 percent for Hispanic children. Further study is necessary to determine why sealant utilization rates differed between Blacks and Hispanics. In the meantime, targeted efforts to increase sealant application rates among Black low-income children should be a priority to diminish health inequities and continue improving overall health.

Thanks to expanded access to dental care, more low-income children received routine dental exams and more opportunities to prevent tooth decay through sealants and other treatments. Improving access to care can be attributed, in part, to greater private provider participation in HUSKY. While simplifying administrative procedures contributes to expanded private dentist enrollment, Medicaid reimbursement rates should be maintained at current levels or, ideally, increased periodically to offset the rising cost of providing oral health services. Some researchers predict private sector dental fees will rise as much as 50 percent by 2017.[7] Without robust private dental provider HUSKY participation, the significant oral health improvements low-income children realized over the past 8 years will erode.

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APPENDIX: METHODOLOGY

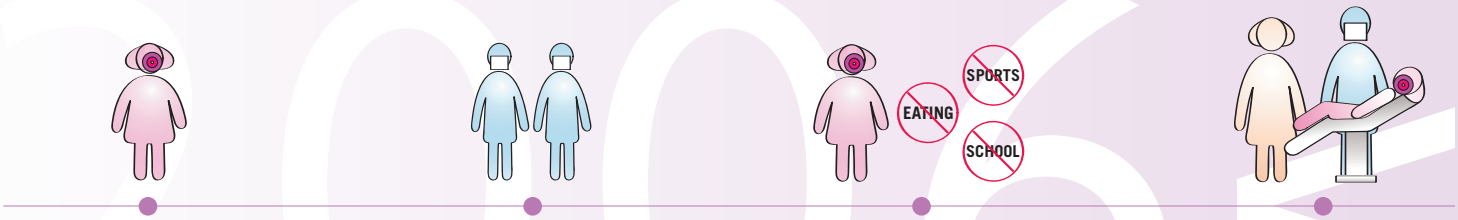
Connecticut's DSS supplied Medicaid enrollment data for 2006 and 2009-2012. The year 2006 is the baseline due to unrelated program changes in 2007. Years 2009 to 2012 were selected because new policies (e.g., higher reimbursement rates, streamlined enrollment procedures and outreach) were implemented in mid-2008. Two data sets were developed from the enrollment data:

- Cross-sectional sealant utilization data for continuously-enrolled HUSKY A 7-year-olds in either 2006 (sample size or n = 9,132) or 2012 (n = 13,235) were examined. Only 7-year-olds—the age of peak sealant application—who had a dental examination were included in the study. Among these HUSKY enrolled children, 74 percent received a dental examination in 2012 compared with 51 percent in 2006.
- Longitudinal treatment outcomes data for 6-year-olds who received an annual dental exam and were enrolled in HUSKY A at some point in 2009 and in each of the next three successive years (n = 4,949) also were studied. Treatment outcomes for the upper-right first permanent molar were evaluated because tooth decay affects all first permanent molars similarly. Based on Medicaid insurance claims data, children were assigned into one of two groups:
  - With sealant group: Children with a dental sealant on the upper-right first permanent molar in 2009 (n = 739).
  - Without sealant group: Children with no treatment (sealant or filling) on the same tooth in 2009 and no sealant application between 2009 and 2012 (n = 1,231). It was assumed these children had a healthy upper-right first permanent molar.

Insurance claims data is not as accurate as diagnostic information. It is possible a few children with a cavity or sealant were included in the "without sealant group." For example, a child may have been diagnosed with a cavity but did not follow up to receive a filling. Or a child might have received a sealant before 2009 meaning his/her tooth was protected through 2012. The overall impact on the findings is likely to be low, given the data's inherent flaws failed to identify both unhealthy teeth and/or protected teeth.

Gender, race/ethnicity, total restorative treatment received and place of residence potentially can affect sealant application and treatment outcome. Based on their residence, children were categorized into one of six health reference groups—clusters of cities/towns with similar demographic profiles. Logistic regression determined the relative contribution of each factor on sealant outcome success.

A CHILD'S EXPERIENCE IN 2006 BEFORE CHANGES TO MEDICAID



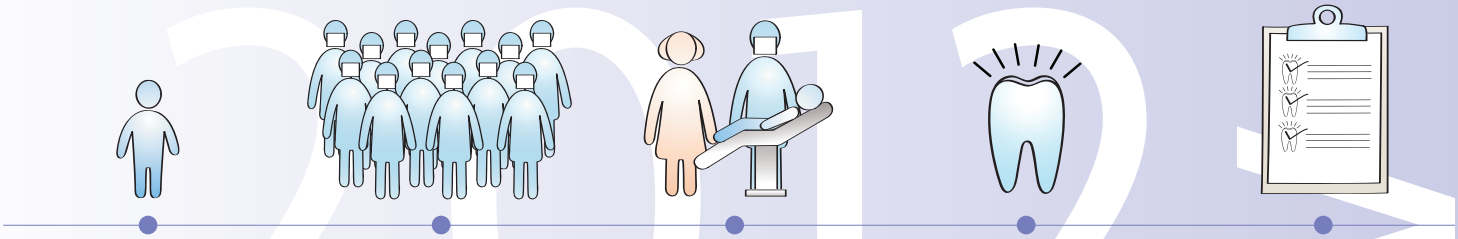
LACK OF EARLY ROUTINE CARE = CAVITIES AND PAIN DEVELOP

SMALL NETWORK OF PROVIDERS ACCEPTING HUSKY = LONG WAIT TIME FOR APPOINTMENT

LIVING WITH TOOTH PAIN INTERFERES WITH SCHOOL, EATING, PLAYING SPORTS

ONCE CARE IS ACCESSED, DECAYED TOOTH MUST BE EXTRACTED

A CHILD'S EXPERIENCE IN 2012 AFTER CHANGES TO MEDICAID



CHILD'S PARENTS ESTABLISH DENTAL HOME AT AGE 1

LARGE PROVIDER NETWORK ACCEPTING HUSKY FACILITATES ACCESS

REGULAR ROUTINE EXAMS AND PREVENTIVE CARE

SEALANT APPLIED DURING ROUTINE VISIT TO PREVENT TOOTH DECAY

HEALTHY TEETH = FREE FROM CAVITIES AND PAIN

CITATIONS

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4 *Every Smile Counts*, 8.

5 Finison L., *Community Health Data Scan for Connecticut*. Hartford, CT: Connecticut Health Foundation, 2007, 29–30.

6 *Every Smile Counts*, 3.

7 Tryfon Beazoglou, "Proposed Cut in Dental Reimbursement Could Jeopardize Children's Care," *CT Viewpoints*, April 13, 2015, (http://ctviewpoints.org/2015/04/13/proposed-cut-in-dental-reimbursement-could-jeopardize-childrens-care/).

8 Beazoglou T, Douglass JM, Bailit H, Myne V., *Impact of Increased Dental Reimbursement Rates on Husky A Insured Children: 2006–2011*. Hartford, CT: Connecticut Health Foundation, 2013, 3.

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