

PANTA Plus

Dental Health



For the latest
Kentucky Youth Risk Behavior Survey data:



DENTAL HEALTH

Data

The Surgeon General's report in 2000 describes oral health in the United States as a "silent epidemic of dental and oral diseases." The epidemic of tooth decay is the most common childhood disease affecting children in the United States - occurring five times more often than asthma and seven times more often than hay fever. Oral diseases in children can cause serious health problems and pain.⁵⁷

- More than 51 million school hours are lost each year to dental-related illness.⁵⁸
- An estimated 5 percent of children under 18 have untreated dental problems, but that percentage rises to 39 percent for African American children and 60 percent for Mexican American children.⁵⁷
- Children in poor families have five times more untreated cavities than children in families with higher incomes.⁵⁷
- Approximately 25 percent of children living in poverty enter kindergarten without ever having seen a dentist.⁵⁷
- Dental caries affects over 50 percent of youths ages 5-17.⁵⁷

Lack of dental coverage, access and transportation are three of the primary barriers for Kentucky children not receiving oral health care. Some 23 million children in the U.S. have no dental coverage.⁵⁷

Dental disease and inadequate receipt of dental care remain significant problems for children in Medicaid. Nationally representative survey data from 1999 through 2004 indicate that about one in three children aged 2 through 18 in Medicaid had untreated tooth decay, and one in nine had untreated decay in three or more teeth. Projecting the survey results to the 2005 average monthly Medicaid enrollment of 20.1 million children, we estimate that 6.5 million children aged 2 through 18 in Medicaid had untreated tooth decay. Children in Medicaid remain at higher risk of dental disease compared to children who have private health insurance; children in Medicaid were almost twice as likely to have untreated tooth decay.⁵⁹

Kentucky Data

- About 23% of the high school children and 25% of the middle school children in Kentucky responded that they did not brush their teeth on all seven days of the past week.⁶⁰
- 85% of the high school and 75% of the middle school children in Kentucky reported that they did not floss on all seven days in the past week.⁶⁰
- Close to 30% of high school and 36% of middle school children have not visited the dentist in the past 12 months.⁶⁰
- According to the Kentucky KIDS SMILE program, there are about 4500 three year old children who have experienced toothache.
- From the 2001 oral health survey results:⁶¹
 - 56.1% had past history of dental caries.
 - 28.5% needed early dental care (within weeks).
 - 3.9 % were in need of urgent dental care (within 24 hours).
 - 28.7 % had an untreated decayed tooth.

Kentucky Smile, developed by University of Kentucky College of Dentistry, is an oral health education manual for use for Cooperative Extension Service Agents in Kentucky. The primary goal of SMILE is to assist Kentucky youth in developing awareness, knowledge, and attitudes that will result in responsible behavior with respect to their dental health. This goal is approached by providing the extension agent with suggested learning activities and relating each activity to a specific program topic and objective.

The overall purpose of this manual is to provide, in a single source, accurate dental health education material for those who do not teach dental health on a regular basis. Extension agents are encouraged to work closely with their community partners such as school teachers, public health departments, libraries, and Homemaker Organizations to help them adapt these activities freely to meet particular needs. <http://chfs.ky.gov/NR/rdonlyres/4AF5A991-D6B6-486F-98D6-FDF707E38319/0/smilecurriculum.pdf>

Emerging, Promising and Best Practices

Smile Kentucky!, a program through the University of Louisville School of Dentistry, works with school districts to select the schools. The program is two-fold: dental education and treatment. The program runs from August through February at elementary schools in Louisville Metro and surrounding counties.

During the first phase, Smile Kentucky! volunteers visit each school, providing a dental education program to every classroom. On the same day, children in grades three, four and five receive a free dental screening. Local dentists and hygienists provide the screenings. Every child at the school receives a Colgate toothbrush and toothpaste and a Pure Tap water bottle. Teachers receive a dental curriculum, aligned to Program of Studies.

During the second phase, Smile Kentucky! provides free, comprehensive treatment to medically underserved children at the selected schools. From the screenings, the program identifies children who need dental treatment and have no insurance or federal assistance. Those children come to the University of Louisville School of Dentistry on a selected date. Local dentists, hygienists and dental assistants provide the free treatment. <http://www.smilekentucky.com/>

Smile Smarts! is an oral health curriculum for pre-school through grade eight students offering flexible, modular lesson plans, support materials, hands-on classroom demonstrations, student activity sheets, and suggestions for further oral health activities. <http://www.ada.org/390.aspx>

- Shining Smiles! Grades Preschool–1 (Ages 4–7)
- A Lifetime of Healthy Smiles! Grades 2 & 3 (Ages 7–9)
- Teeth to Treasure! Grades 4–6 (Ages 9–12)
- Watch Your Mouth! Grades 7 & 8 (Ages 12–14)
- **Smile Smarts!** Curriculum |

Open Wide and Trek Inside has several objectives. The first is to help students understand major concepts related to oral health. By focusing on the science of the oral environment, the module goes beyond the traditional “brushing and flossing” curriculum and presents to students the ways science has helped people understand how to take proper care of their mouths and the structures within.

The second objective of the module is to engage students in the nature of science through inquiry. As students ask and answer questions about their mouths, they model the process scientists use to find out more about the natural world.

An additional objective of this module is to encourage students to think in terms of these relationships now and as they grow older, and to use their knowledge of the oral environment to affect positive behaviors that enhance their oral health. <http://science-education.nih.gov/supplements/nih2/oral-health/default.htm>

Oral Health Modules. The Division of Dental Health, Virginia Department of Health, has developed oral health curriculums for middle, and high school students. The Health Education Standards of Learning (SOLs) for the Virginia Public Schools provide the framework for instruction of the knowledge and skills needed for students to lead healthy lives. The goal of these oral health curriculums is to



educate students about the impact of health behaviors on oral and overall health. <http://www.vahealth.org/dental/oralhealtheducation/training.htm>

These modules include:

- Keep Your Teeth and Gums Fit for Life
- Diet, Oral Health and Wellness
- Oral Health and Tobacco Use
- Sports/Injury Prevention
- Mouth Jewelry-It's Not as Simple as You Think

Tobacco-Free Together. Master of Public Health students in a health communications course for the second year produced video public service announcements on various tobacco-related topics, including social smoking, cigars, hookahs and chewing tobacco. The PSAs were funded by the University of Florida Area Health Education Centers Program. They were screened on campus and are posted on YouTube. Visit the channel at www.youtube.com/ufoahc#play/uploads.

Head Start Dental Curriculum is a teaching guide prepared to assist teachers in conducting dental health lessons that can help Head Start children develop an understanding of the importance of their teeth and of ways to keep a healthy mouth.

The guide contains lesson plans for the following areas:

- Introduction to the Dental Health Program
- Visiting the Dentist
- Awareness of the Mouth
- The Important Functions of the Mouth
- The Importance of Keeping Teeth and Gums Clean
- Tooth brushing
- The Importance of Fluoride and Sealants
- Wise Food Choices for a Healthy Mouth
- Keeping Teeth Safe
- Reinforcement Activities for Dental Health

http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=ED395680&_ERICExtSearch_SearchType_0=no&accno=ED395680

Policy and Environmental Change

Policy and environmental change interventions are population-based approaches that complement and

strengthen other public health programs and activities that traditionally have focused on individual behavior change.

Policies include laws, regulations, and formal and informal rules. Examples include all schools offering physical education during school hours; laws and regulations for what should be included in vending machines at schools; laws and regulations to restrict smoking on school campuses; or regulations permitting students to carry and administer their own asthma medications.

Environmental changes are implemented to improve the economic, social, or physical environments of the school. Examples include incorporating walking paths or recreation areas into school campuses; offering low-fat foods in school cafeterias; removing designated smoking areas from school campuses; or reducing exposure to asthma triggers, such as secondhand smoke in schools.

The Dental Health Foundation created a guidebook to address oral health in schools. This guide is a comprehensive approach to oral health education policy in schools. It is a helpful tool for school board members and superintendents to develop local policies to address oral health in their schools. Worksheets provide a tool for assisting in developing oral health policies. <http://www.dentalhealthfoundation.org/advocacy/school-policy-framework>

School-based oral health services can help make preventive services such as fluoride and dental sealants accessible to children from families with low incomes. Services should include screening, referral, and case management to ensure the timely receipt of dental care from community practitioners.⁶² Good oral health is essential for students to learn and oral health affects the overall health of students. Oral health also impacts schools with a high number of students reporting oral health problems or missing school for oral-related illnesses. Oral health policies and programs can assist Kentucky's children by developing a comprehensive approach to addressing oral health issues in schools.

- Nationally more than 1.6 million days of school time are lost every year because of oral-related illnesses such as tooth decay or injury to the mouth.⁶³

- School absences for oral illness or treatment cost school districts approximately \$28.8 million per year.⁶⁴
- Children with severe untreated dental decay often are in pain, can't sleep at night, can't concentrate and get poor grades.⁶⁵
- Children who have a toothache when they take tests are unlikely to score as well as children who are not distracted by pain.⁶⁶
- When children's acute oral health problems are treated and they are not experiencing pain, their learning and school attendance records improve.⁶⁷



Beginning in the 2010-11 school year, Kentucky law, KRS 156.160 (i), requires proof of a dental screening or examination by a dentist, dental hygienist, physician, registered nurse, advanced registered nurse practitioner, or physician assistant no later than January 1 of that year.

In addition, the American Academy of Pediatric Dentistry provides guidance for policies on prevention programs, sweetened beverages, nutrition, vending policies, tobacco, mouthguards and the practice of intraoral/perioral piercing and tongue splitting. These policies are outlined in the following section.

Policy Statements by the American Academy of Pediatric Dentistry

The following policies are supported by the American Academy of Pediatric Dentistry (AAPD).

1. Advocates interaction with early prevention programs, schools, early childhood education and child care programs, members of the medical and dental communities, and other public and private community agencies to ensure awareness of age-specific oral health issues.⁶⁸
2. Encourages collaboration with other dental and medical organizations, governmental agencies, education officials, parent and consumer groups, and corporations to increase public awareness of the negative effects of frequent and/or inappropriate intake of sweetened drinks (carbonated and noncarbonated) and low nutrient dense snack foods on infant, child and adolescent oral health, nutrition and general health.⁶⁹
3. Opposes any arrangements that may decrease access to healthy nutritional choices for children and adolescents;⁷⁰
4. Encourages school officials and parent groups to consider the importance of maintaining health choices in vending machines in schools and encourages the promotion of food and beverages of high nutritional value; bottled water and other more healthy choices should be available instead of soft drinks;⁶⁹
5. Promotes educating and informing the public about the importance of good oral hygiene and nutritional habits as they pertain to consumption of items available in vending machines.⁶⁹
6. Educating the public about other health risks associated with excess consumption of simple carbohydrates, fat, saturated fat and sodium.⁷⁰
7. Opposes the use of all forms of tobacco including cigarettes, pipes, cigars, and smokeless tobacco and alternative nicotine delivery systems (ANDS), such as tobacco lozenges, nicotine water, nicotine lollipops, or "heated tobacco" cigarette substitutes.⁷¹
8. Continuation of preventive practices instituted in youth, high school and college football, lacrosse and ice hockey.⁷²
9. For youth participating in organized baseball and softball activities, an American Society for Testing and Materials-certified face protector be required (according to the playing rules of the sport).⁷²



10. Mandating the use of properly-fitted mouthguards in other organized sporting activities with risk of orofacial injury.⁷²
11. Prior to initiating practices for a sporting season, coaches/administrators of organized sports consult a dentist with expertise in orofacial injuries for recommendations for immediate management of sport-related injuries.⁷²
12. Because of its potential for numerous negative sequelae, the American Dental Association opposes the practice of intraoral/perioral piercing and tongue splitting.⁷²

Furthermore, the AAPD encourages:

- School health education programs and food services to promote nutrition programs that provide well-balanced and nutrient-dense foods of low caries-risk, in conjunction with encouraging increased levels of physical activity.⁷⁰
- Its members to work with school boards to increase tobacco-free environments for all school facilities, property, vehicles and school events.⁷¹
- Enact and enforce policies that require school facilities, grounds, and events to be tobacco free.⁷¹
- Communicate tobacco-use prevention policies to staff, students, parents, and the community.⁷¹
- Require tobacco-use prevention education for students in grades K–12.⁷¹

State and Federal Laws

State Laws

KRS 156.160 (i) Beginning 2010-2011 school year, Kentucky law, KRS 156.160 (i), requires proof of a dental screening or examination by a dentist, dental hygienist, physician, registered nurse, advanced registered nurse practitioner, or physician assistant. This evidence shall be presented to the school no later than January 1 of the first year that a five (5) or six (6) year old is enrolled in public school.

KRS 211.190 In 1977, the legislature of the Commonwealth of Kentucky passed KRS 211.190, which mandated that all public water supplies that served more than 1500 individuals be fluoridated. From 1977 to 1994, the provisions of the statute were enforced by the Kentucky Cabinet for Natural Resources. In 1994, the Dental Program Administrator began the fluoridation surveillance and enforcement program. KRS 211.190 also establishes surveillance and enforcement provisions as well as penalties for non-compliance.

Assessment and Planning

The Association of State and Territorial Dental Directors (ASTDD) adopted a resolution in 2007 to facilitate integration of oral health into Coordinated School Health Programs. The resolution also provided the impetus for the compilation of existing products and development of new products that will support



efforts of State Dental Directors and local oral health programs, school health and education professionals in promoting the integration of oral health curriculum into the Coordinated School Health Model.

<http://www.astdd.org/index.php?template=saoh.html>

ASTDD Seven-Step Model The seven-step model includes a core set of information (data) items that all oral health programs should include and a selection of optional information items from which program managers can choose to expand the scope of their needs assessments.

http://www.astdd.org/index.php?template=seven_steps.html

ASTDD Basic Screening Survey for Children Planning and Implementation Packet This packet, which consists of a CD and DVD, includes all the information you will need to plan and conduct a Basic Screening Survey of preschool or school age children. The CD contains the BSS Manual, an examiner training presentation with clinical slides, Epi Info files for data entry and basic analysis, a reference guide for screeners, along with information on the impact of HIPPA and IRB review on oral health surveys.

<http://www.astdd.org/basic-screening-survey-tool/#children>

Open Wide: Oral Health Training for Health Professionals A series of four self-contained online modules designed to help health and early childhood professionals working in community settings:

<http://www.mchoralhealth.org/openwide/index.htm>

School-Based Dental Sealant Programs provide sealants to children unlikely to receive them otherwise. Sealants are thin plastic coatings applied to the tiny grooves on the chewing surfaces of the back teeth. This is where most tooth decay in children and teens occurs. Sealants protect the chewing surfaces from decay by keeping germs and pieces of food out. School-based sealant programs are especially important for reaching children from low-income families who are less likely to receive private dental care. Programs generally target schools by using the percentage of children eligible for federal free or reduced-cost lunch programs. Tooth decay may result in pain and other problems that affect learning in school-age children.

<http://jada.ada.org/cgi/content/abstract/140/11/1356>

Seal America offers an online manual designed to assist health professionals initiate and implement a school-based dental sealant program to help prevent dental caries in children.

<http://www.mchoralhealth.org/Seal/index.html>

Bright Futures in Practice: Oral Health—Pocket Guide is designed to help health professionals implement specific oral health guidelines during pregnancy and postpartum, infancy, early childhood, middle childhood, and adolescence. It addresses risk assessment for dental caries, periodontal disease, malocclusion, and injury.

<http://www.mchoralhealth.org/pocket.html>

Frequently Asked Questions

What should we do for dental emergencies and injuries?

There are a number of simple precautions you can take to avoid accident and injury to your teeth. One way to reduce the chances of damage to your teeth, lips, cheek and tongue is to wear a mouthguard when participating in sports or recreational activities that may pose a risk. Avoid chewing ice, popcorn kernels and hard candy, all of which can crack a tooth. Cut tape using scissors rather than your teeth. Accidents do happen, and knowing what to do when one occurs can mean the difference between saving and losing a tooth.

Bitten Lip or Tongue: Clean the area gently with a cloth and apply cold compresses to reduce any swelling. If the bleeding doesn't stop, go to a hospital emergency room immediately.

Broken Tooth: Rinse your mouth with warm water to clean the area. Use cold compresses on the area to keep any swelling down. Call your dentist immediately.

Jaw-Possibly Broken: Apply cold compresses to control swelling. Go to your dentist or a hospital emergency department immediately.

Knocked Out Tooth: Hold the tooth by the crown and rinse off the root of the tooth in water if it's dirty. Do not scrub it or remove any attached tissue fragments. If possible, gently insert and hold the tooth in its socket. If that isn't possible, put the tooth in a cup of milk and get to the dentist as quickly as possible. Remember to take the tooth with you!



Toothache: Rinse your mouth with warm water to clean it out. Gently use dental floss or an interdental cleaner to ensure that there is no food or other debris caught between the teeth. Never put aspirin or any other painkiller against the gums near the aching tooth because it may burn the gum tissue. If the pain persists, contact your dentist.

Should athletes wear mouthguards?

Use a mouthguard during any activity that could result in a blow to the face or mouth. A properly fitted mouthguard can help prevent broken teeth and injuries to the lips, tongue, face or jaw. It will stay in place while you are wearing it, making it easy for you to talk and breathe. http://www.ada.org/sections/scienceAndResearch/pdfs/patient_69.pdf

How can oral piercing be bad for your health?

Because your mouth contains millions of bacteria, infection is a common complication of oral piercing. Pain and swelling are other side effects of piercing. Your tongue—a popular piercing site in the mouth—could swell large enough to close off your airway. Piercing also can cause uncontrollable bleeding or nerve damage. The jewelry itself also presents some hazards. You can choke on any studs, barbells or hoops that come loose in your mouth, and contact with the jewelry can chip or crack your teeth.

What are dental sealants?

Dental sealants are thin plastic coatings that are applied to the grooves on the chewing surfaces of the back teeth to protect them from tooth decay. Most tooth decay in children and teens occurs on these surfaces. Sealants protect the chewing surfaces from tooth decay by keeping germs and food particles out of these grooves.

What diet is healthy for teeth?

Make sure you eat a balanced diet, including one serving each of: fruits and vegetables, breads and cereals, milk and dairy products, and meat fish and eggs. Limiting the servings of sugars and starches will also aid in protecting your child's teeth from decay. You can also ask your pediatric dentist to help you select foods that protect your children's teeth.

Resources

The National Maternal Health and Child Oral Health Resource Center has numerous publications on oral health. Some publications are free of charge for US orders. <http://www.mchoralhealth.org/publications.html>

Promoting Oral Health in Schools: A Resource Guide, National Maternal Health and Child Oral Health Resource Center <http://www.mchoralhealth.org/PDFs/ResGuideSchoolOH.pdf>

Tools developed to assist integration of Oral Health into the CSHP model, ASTDD
http://www.astdd.org/index.php?from_db=1&content_id=206

School-Based Dental Health, The Center for Health and Health Care in Schools
<http://www.healthinschools.org/Health-in-Schools/Health-Services/School-Based-Dental-Health.aspx>

American Dental Association Classroom Ideas and Resources
<http://www.ada.org/387.aspx>

Colgate Bright Smiles, Bright Futures
<http://www.colgate.com/app/BrightSmilesBrightFutures/US/EN/HomePage.cvsp>

Make Your Own Toothpaste and Toothpowder
<http://mizar5.com/toothpst.htm>

Teacher's Dental Health Page
<http://www.teachingheart.net/teeth.html>

American Dental Association Games and Puzzles
<http://www.ada.org/353.aspx> and <http://www.ada.org/2934.aspx#sheets>

My Last Dip Web-Based Smokeless Tobacco Cessation Program
<http://mylastdip.com/>

Campaign for Tobacco-Free Kids
<http://www.tobaccofreekids.org/index.php>

