Master of Public Health

Applied Practice Experience

ADVANCING ORAL HEALTH IN KANSAS: THE IMPACT OF APPLIED PRACTICAL EXPERIENCE AT THE BUREAU OF ORAL HEALTH

by

Snehal Gawhale

MPH Candidate

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Graduate Committee:
Ellyn Mulcahy, Ph.D., MPH
Natalia Cernicchiaro, D.V.M., M.S., Ph.D.
Justin Kastner, Ph.D.

Applied Practical Experience Site:
Bureau of Oral Health, Kansas Department of Health and Environment
January 2023 – April 2023

Applied Practical Experience Preceptor:
Amalia Almeida, MSN
and
Debra Trybom, RDH, ECP III

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Manhattan, Kansas

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Chapter 1 - Portfolio Products

The Bureau of Oral Health (BOH) at the Kansas Department of Health and Environment (KDHE) is committed to promoting and improving the oral health of Kansans. The BOH achieves this through various initiatives and programs aimed at preventing oral diseases and promoting oral health in communities throughout the state. As a public health agency, the BOH's mission is to educate, promote, and advocate for optimal oral health for all Kansans, particularly those who are underserved or at risk of poor oral health outcomes. During my Applied Practical Experience (APE) at the BOH, I had the opportunity to contribute to this mission by working on communication strategies, legislative proposals, and public health promotion initiatives. I developed a map to locate the public and private K-12 schools and dental screeners in Kansas and contributed to the writing of a white paper aimed at proposing statutory changes to increase the number of trained school-based healthcare staff who can perform dental screenings, thereby ensuring that every child in Kansas schools has access to this crucial service.

During my time at the BOH, I was involved in several projects aimed at promoting oral health and improving access to dental care in Kansas. One of my primary contributions was creating a comprehensive map of all the public and private kindergarten through grade 12 (K-12) schools and dental screeners throughout the state of Kansas. This map provides a visual representation of the locations of schools and allows the BOH to better understand where access to oral health screening services may be limited. In addition to creating the map, I contributed to the BOH's public health promotion initiatives. I wrote an article for the BOH's newsletter, highlighting the need for increased access to dental screenings in Kansas schools and the proposed changes to oral health legislation.

I was involved in the development of a white paper proposing statutory changes to increase the number of trained school-based healthcare staff who can perform dental screenings, which is a basic dental examination to check the overall oral health of an individual to detect any potential dental issues, such as cavities, gum disease, or other abnormalities that may require further evaluation or treatment. This includes collaborating with BOH staff and contributing to the writing and editing of the proposal. Overall, my work at the BOH allowed me to gain practical experience in public health promotion, legislative advocacy, and oral health policy development.

Table 1.1 Summary of Portfolio Products

Portfolio Product		Description
1	White paper	A white paper was written proposing statutory changes to increase access to dental screening services for Kansas students by allowing trained school healthcare personnel, such as school nurses, to carry out the screenings. By broadening the pool of qualified personnel who can conduct dental screenings, this amendment aims to enhance access to oral healthcare services for students and promote better oral health outcomes.
2	MAP	The map was created to provide a visual representation of the distribution of public and private K-12 schools and dental screening services to these schools across different regions in Kansas. This information was layered to identify areas where access to screening services may be limited for students and to inform policy decisions and healthcare resource allocation to help improve access to these services for students and promote better health outcomes.
3	Article for Oral Health Newsletter	An article was written for the Oral Health Newsletter outlining proposed statutory changes to improve access to dental screening services for Kansas students. It will be published in the Fall edition of the Oral Health Newsletter. The article provides a clear overview of the proposed changes, which could help raise awareness and support for the initiative.
4	Trifold Brochure for KMOM Event	A tri-fold brochure was created to recruit volunteers or contracted screeners for the Kansas Mission of Mercy (KMOM) event in Topeka. The brochure includes information on the roles and responsibilities of volunteers or contracted screeners, as well as a sample contract. The brochure was made to attract individuals interested in contributing to the Screening Program of BOH and ensure that they have a clear understanding of their roles and expectations.

Table 1.2 Portfolio Products and Competency Addressed

Portfolio Product		Number and Competency Addressed	
1	White Paper	13,15, 21	Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes. Evaluate policies for their impact on public health and Health Equity Perform effectively on an interprofessional team.
2	Map	2,3	Apply epidemiological methods to the breadth of settings and situations in public health practice. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate.
3	Newsletter Article	21	Perform effectively on interprofessional teams.
4	Trifold	11	Select methods to evaluate public health programs.

Chapter 2 - Competencies

Student Attainment of MPH Foundational Competencies

Table 2.1 Summary of MPH Foundational Competencies

Number and Competency		Description
2	Select quantitative and qualitative data collection methods appropriate for a given public health context	In the creation of a map, for identifying the location and distribution of public and private K-12 schools and dental screeners, it was necessary to select relevant data sources for analysis and mapping.
3	Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate	Mapping schools and oral health screening services in Kansas using GIS and mapping techniques involves the use of computer-based programming and software.
11	Select methods to evaluate public health programs	By including relevant information about BOH and the sample contract, the trifold helped in communicating the goals and objectives of the public health program. The trifold was useful in tracking attendance at the event and gathering feedback from participants, which was useful to evaluate the success of the program.
13	Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	By proposing specific strategies to address the issue of limited access to dental screening services, the white paper serves as a tool for building coalitions and partnerships with policymakers, school administrators, dentists, public health personnel, and community members to achieve better oral health outcomes for Kansas students.
15	Evaluate policies for their impact on public health and health equity	By highlighting the limited availability and resources of dental screening services in schools, the white paper identifies a policy gap

		that needs to be addressed to improve oral health outcomes for students. The proposed amendment is evaluated as a strategy to increase access to oral healthcare services for students, which can ultimately lead to better oral health outcomes and reduced health disparities.
21	Perform effectively on interprofessional teams	The white paper and the newsletter article highlight the proposed statutory changes to increase the number of trained school-based healthcare staff who can perform dental screenings, which suggests a collaborative effort between healthcare professionals, educators, and policymakers to address the issue of limited access to oral healthcare services in schools.

Competency #2: Select quantitative and qualitative data collection methods appropriate for a given public health context

The creation of a MAP involved using geographic information systems (GIS) and mapping techniques to visualize the data. The use of ArcGIS, a popular GIS software, was an integral part of the mapping process as it allowed for the creation of interactive and customizable maps that displayed the data in an accessible way. The process involved selection of both quantitative and qualitative data related to oral health to analyze it and create the map. The BOH provided a few hours of video-based training to better understand the uses of ArcGIS. It was essential in utilizing ArcGIS to its full potential and accurately analyze the data. The data about the public and private K-12 schools and screeners were obtained from the oral health portal of the Kansas State Oral Health (KSOH) administration. This data is not public and requires special access, which was given to me by BOH. By identifying the location and distribution of schools and screening facilities, the areas with a high need for oral health screening services could be identified.

The use of GIS and mapping techniques in this epidemiological approach was an effective method for analyzing and identifying areas with a high need for oral healthcare screening services and contributed to the competency of selecting quantitative and qualitative data collection methods appropriate for a given public health context.

Competency #3: Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate.

The utilization of GIS and mapping techniques was essential in creating a MAP that identified the location and distribution of schools and dental screeners in Kansas. The process involved using the ArcGIS software to analyze both quantitative and qualitative data related to oral health access in the state. Quantitative data refers to numerical data related to the distribution of schools and dental screeners in Kansas, such as the number of schools and the number of screeners in each location. Qualitative data refers to non-numerical data that helped inform the analysis, such as the characteristics of the schools and the communities they serve, as well as the quality of the dental screening services provided. Biostatistics and informatics were employed to identify patterns of distribution of schools and screeners and to manipulate and analyze complex datasets.

This approach allowed for a comprehensive analysis of the data, fulfilling the competency of analyzing quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate.

Competency #11. Select methods to evaluate public health programs.

Selecting appropriate methods to evaluate public health programs is a key competency in public health practice. In this case, the use of a Trifold Brochure for KMOM Event to promote and evaluate a public health program was an effective approach. The brochure provided relevant information about the program, including details about the BOH and the sample contract, which helped in communicating the goals and objectives of the BOH to potential participants. The trifold served as a useful tool for tracking attendance at the event and gathering feedback from participants. This information was critical in evaluating the success of the program and identifying areas for improvement. By using this method of evaluation, public health professionals can identify the strengths and weaknesses of their programs and adjust better serve the needs of their target population.

Competency #13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.

The White paper proposed strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes related to oral health. It addressed the issue of limited access to dental screening services for Kansas students and provided specific recommendations to address the problem. The paper highlighted the importance of engaging policymakers, school administrators, dentists, public health personnel, and community members to achieve better oral health outcomes.

The proposed strategies in the white paper serve as a tool for building coalitions and partnerships, which are essential for successful public health interventions. By identifying stakeholders and bringing them together, partnerships and coalitions can leverage collective expertise, resources, and influence to achieve shared goals. The white paper's proposal of specific strategies to address the issue of limited access to dental screening services demonstrates the fulfillment of this competency.

Competency #15. Evaluate policies for their impact on public health and health equity.

The White paper provides an evaluation of the policies related to dental screening services in schools, analyzing their impact on public health and health equity. The paper highlights the lack of availability and resources for such services, which can have a negative impact on the oral health outcomes of students, particularly those from marginalized communities. By evaluating the current policies, the white paper identifies a policy gap that needs to be addressed to improve oral health outcomes for students.

The proposed amendment to the policy is evaluated as a strategy to increase access to oral healthcare services for students, with the potential to reduce health disparities. The evaluation of policies in the white paper is important to ensure that policies are effective in achieving their intended public health outcomes and are equitable in their impact on all members of the community.

Competency #21. Perform effectively on interprofessional teams.

The White paper as well as the Article for Oral Health Newsletter was a collaborative effort involving an interprofessional team of experts from various fields, including dentists, public health officials, school administrators, and policymakers. Each team member brings unique perspectives and expertise to the discussion, and effective communication and collaboration among team members are essential to achieve the common goal of improving oral health outcomes for students. The ability to work effectively on interprofessional teams is critical for public health professionals to address complex health issues and implement effective solutions.

Table 2.2 MPH Foundational Competencies Course Mapping

22 Public Health Foundational Competencies Course Mapping	MPH 701	MPH 720	MPH 754	MPH 802	MPH 818
Evidence-based Approaches to Public Health					
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	x		x		
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	x	x	x		
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate	x	x	x		
4. Interpret results of data analysis for public health research, policy, or practice	x		x		
Public Health and Health Care Systems					
5. Compare the organization, structure, and function of health care, public health, and regulatory systems across national and international settings		x			
6. Discuss the means by which structural bias, social inequities, and racism undermine health and create challenges to achieving health equity at organizational, community, and societal levels					x
Planning and Management to Promote Health					
7. Assess population needs, assets, and capacities that affect communities' health		x		x	
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs					x
9. Design a population-based policy, program, project, or intervention			x		
10. Explain the basic principles and tools of budget and resource management		x	x		
11. Select methods to evaluate public health programs	x	x	x		
Policy in Public Health					
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence		x	x	x	

22 Public Health Foundational Competencies Course Mapping	MPH 701	MPH 720	MPH 754	MPH 802	MPH 818
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes		x		x	x
14. Advocate for political, social, or economic policies and programs that will improve health in diverse populations		x			x
15. Evaluate policies for their impact on public health and health equity		x		x	
Leadership					
16. Apply principles of leadership, governance, and management, which include creating a vision, empowering others, fostering collaboration, and guiding decision making		x			x
17. Apply negotiation and mediation skills to address organizational or community challenges		x			
Communication					
18. Select communication strategies for different audiences and sectors	DMP 815, FNDH 880 or KIN 796				
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	DMP 815, FNDH 880 or KIN 796				
20. Describe the importance of cultural competence in communicating public health content		x			x
Interprofessional Practice					
21. Perform effectively on interprofessional teams		x			x
Systems Thinking					
22. Apply systems thinking tools to a public health issue			x	X	

Appendix A - MAP

Interactive Map of K-12 Schools and Oral Health Screening in Kansas

This appendix provides a brief description of the interactive map created to identify the distribution of public and private K-12 schools and dental screening services across different regions in Kansas. The map was created using ArcGIS software and provides a visual representation of the distribution of schools and dental screening services across the state. By layering this information, areas where access to screening services may be limited for students can be identified, which can inform policy decisions and healthcare resource allocation to improve access to these services for students and promote better health outcomes.

The interactive map can be accessed at https://kdhe.maps.arcgis.com/apps/webappviewer/index.html?id=5baa3a53501e458b9e4af589598c8a56.

It provides a user-friendly interface to explore the data and allows users to zoom in and out of different regions in Kansas. The map also includes a legend to help users understand the different layers of the information displayed. The interactive map provides a valuable tool for analyzing and understanding oral screening services in Kansas, helping to inform policy decisions and resource allocation to improve access to dental screening services for students in the state.

Appendix B - White paper

This appendix consists of the white paper written to propose statutory changes aimed at increasing access to dental screening services for Kansas students. The white paper proposes amendments to the current laws that govern dental screening services in Kansas. The proposed changes would allow trained school healthcare personnel, such as school nurses, to carry out dental screenings for students. By broadening the pool of qualified personnel who can conduct dental screenings, this amendment aims to enhance access to oral healthcare services for students and promote better oral health outcomes.

Smiling Brighter: Enhancing School Dental Health Programs for Kansas Children through Expanded Dental Screenings

WHITE PAPER

Bureau of Oral Health

Kansas Department of Health and Environment

2023

The Kansas Department of Health and Environment's Bureau of Oral Health (BOH) is a key state-level agency committed to advancing oral health in Kansas. BOH's programs aim to improve oral health awareness and outcomes through various activities, including:

- **Development of an Evidence-based Oral Health Policy**
- **Oral Health Data Collection and Dissemination**
- **Programming Dedicated to Dental Disease Prevention**
- **Statewide Oral Health Education**

The Bureau of Oral Health at KDHE has initiated the Kansas School Oral Health Screening program with the vision of better oral health for all Kansas children.

For more information about the BOH and other oral health resources in Kansas, visit https://www.kdhe.ks.gov/619/Oral-Health

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I. Introduction

Oral health care is a vital aspect of overall health and well-being, particularly for young children. Unfortunately, tooth decay remains a widespread and chronic problem, with devastating consequences for children's health and quality of life. In fact, tooth decay is the most common chronic childhood disease, affecting five times as many children as asthma. Left untreated, tooth decay can lead to pain and suffering, impacting a child's ability to eat, speak, and learn[1].

School-based oral health screenings can provide parents with valuable information about their child's oral health and the importance of regular dental care. This data can also help state officials identify areas with high levels of dental disease and implement targeted preventive interventions to improve the oral health of Kansas school children[1].

According to Kansas State Statute 72-6251, all school children are required to receive annual school-based dental screenings. The Bureau of Oral Health at KDHE has developed oral health screenings that help schools meet this legal obligation. These screenings identify various issues such as tooth decay, previous dental work, infection, swelling, and pain. Parents are informed of the screening results, and those children who require dental treatment are referred to local dentists. It is recommended that school nurses monitor these referrals to ensure that children receive proper care. While school screenings are helpful, they are not a substitute for a comprehensive dental exam by a dental professional. Therefore, it is recommended that every child has a dental home that provides regular dental care. By collecting data from the KDHE school screening program, the state can gain insights into the prevalence of oral disease among Kansas school children[1].

Poor oral health in children is a significant public health issue in the United States, with tooth decay being one of the most common chronic diseases among children. In Kansas, tooth decay is the most prevalent chronic disease affecting children, with nearly 55% of third graders experiencing tooth decay[2]. The state faces challenges in maintaining good oral health for its children, with 18% of kindergarten children having untreated tooth decay. In terms of protective dental sealants, 42% of Kansas third-grade children have them[3]. It is crucial to prioritize the oral health of children in Kansas and take necessary measures to prevent and treat oral health problems. Considering this, the Bureau of Oral Health is proposing a statutory change that would allow trained school healthcare personnel to perform dental screenings in schools. This would increase access to oral healthcare services for students and improve the overall quality of oral healthcare services in schools. The current model relies on the voluntary time and resources of dentists and dental hygienists, which leads to limited availability and revenue loss. By increasing the number of trained school healthcare professionals who can perform the screenings at no cost to school districts, this initiative aims to ensure that all students have access to essential dental screenings.

II. Oral Health Screening Statute

Legislative Implications/History

Oral health is essential to the general health and well-being of all Americans and can be achieved by all Americans, especially children[4]. The Bureau of Oral Health (BOH) recognizes the significance of providing dental screenings to all children in Kansas schools and is committed to enhancing the Kansas Dental School Screening Program to achieve this goal.

In 1915, K.S.A. 72-6251, the Annual Free Dental Inspection Statute, was enacted to provide free annual oral health screenings to every child enrolled in a Kansas school. However, the current provisions of K.S.A. 72-6252 limit the designation of Dentists as the only healthcare personnel who can provide this screening, despite not being a part of the school's healthcare team. This exclusive designation of Dentists as the sole provider of dental screenings has created a significant barrier to children receiving this service, as there is no funding available to reimburse them or Dental Hygienists for this service. As a result, the screening is conducted on a volunteer basis only, leading to inconsistencies in availability and quality of care. To overcome this issue, there is a need to expand the pool of qualified healthcare personnel who can provide dental screenings in schools, thereby increasing access to this essential service and promoting better oral health outcomes for school-aged children.

Recommendations for Enhancements

BOH is proposing statutory changes to increase the number of trained school-based healthcare staff who can perform dental screenings, thereby ensuring that every child in Kansas schools has access to this crucial service. This initiative would help mitigate this issue and improve oral health outcomes for Kansas students. The purpose of the proposed amendment is to increase access to dental screening services in schools. To achieve this objective, the Board of Education will be permitted to assign trained school healthcare personnel, such as school nurses, to carry out the screening. This modification aims to bring the Act in line with other health-related screenings performed in schools, including vision and hearing screenings, which already permit trained school healthcare personnel to perform the screenings. By broadening the pool of qualified personnel who can conduct dental screenings, this amendment aims to enhance access to oral healthcare services for students. In addition, the screening results will be communicated to the parents or guardians of the students. If further examination by a qualified dentist is deemed necessary, this will also be reported. By promoting better communication and coordination among healthcare providers, this amendment aims to improve the overall quality of oral healthcare services in schools. The goal is to promote better oral health outcomes for students by increasing access to dental screening services.

The current model for providing dental screenings in schools relies on the voluntary time and resources of Dentists and Dental Hygienists, as this service is not reimbursable. This leads to limited availability and reflects a loss in revenue for these healthcare professionals. To mitigate these issues and benefit school-age children, this proposed amendment seeks to increase the

number of trained school healthcare professionals who can perform the screenings at no cost to the school districts. This would help ensure that all students have access to essential dental screenings and would help reduce the burden on outside Dentists and Dental Hygienists who currently volunteer to provide this service.

This initiative is relevant to the mission of KDHE, Division, Bureau, or Program, as it aligns with their objective of safeguarding and enhancing the health and environment of all Kansans. School-based oral health screenings are a crucial aspect of improving the oral health of children in the state. Improving the oral health of all Kansans is a priority for the Bureau of Oral Health by starting with the most vulnerable population, children, which allows for improved oral health education and the development of improved oral health practices throughout the lifespan.

III. Oral Health of Children in Kansas

Oral health is a critical component of overall health and well-being, particularly in children. However, not all Americans are achieving the same degree of oral health. Poor oral health in children can lead to pain, difficulty eating and sleeping, speech issues, and poor school attendance. According to the Centers for Disease Control and Prevention (CDC), tooth decay is one of the most common chronic diseases among children in the United States. About 1 in 5 children aged 5 to 11 years have at least one untreated decayed tooth[3]. Over half (51.2%) of children aged 6 to 11 have primary teeth decay, and 24.5% of them have untreated decay[5]. Almost one-third of school-aged children in the US have untreated dental decay, which can cause pain, and tooth loss, and affect their overall health, eating, sleeping, and learning abilities[6].

In Kansas, poor oral health in children is a pressing public health issue that requires attention. According to the KDHE, tooth decay is the most prevalent chronic disease affecting children in Kansas, with nearly 55% of third graders experiencing tooth decay[2]. One of the objectives of Healthy People 2020 is to decrease the prevalence of untreated dental decay among children from 23.8% to 21.4% for 3- to 5-year-olds, from 28.8% to 25.9% for 6- to 9-year-olds, and from 17% to 15.3% for 13- to 15-year-olds[7]. Oral health problems can have a significant economic impact, as they can lead to increased healthcare costs and missed workdays for parents[8]. Therefore, it is crucial to prioritize the oral health of children in Kansas and take necessary measures to prevent and treat oral health problems. By promoting good oral health habits, such as brushing and flossing, and providing access to dental care, we can ensure that Kansas children grow up with healthy smiles and bodies.

IV. Prevalence of Dental Diseases in Kansas' Children

Dental caries is a significant health issue for children and adolescents in Kansas. While preventable, about 40% of Kansas kindergarten children have experienced tooth decay, slightly lower than the national average of 42%. Additionally, 55% of third-grade children in Kansas have

experienced tooth decay, which is also lower than the national average of 60%. Many young children start school with dental disease and are at school in pain, potentially impacting their ability to learn. Kansas faces challenges in maintaining good oral health for its children. 18% of kindergarten children in Kansas have untreated tooth decay, slightly higher than the national average of 15%, while 17% of third-grade children have untreated decay, slightly lower than the national average of 20%[2].

Figure 1: Percentage of **Kindergarden** Children with Decay Experience and Untreated Decay; Kansas (2021-2022) Compared to U.S. Average for 5-year old children (NHANES 2011-2016)[2]

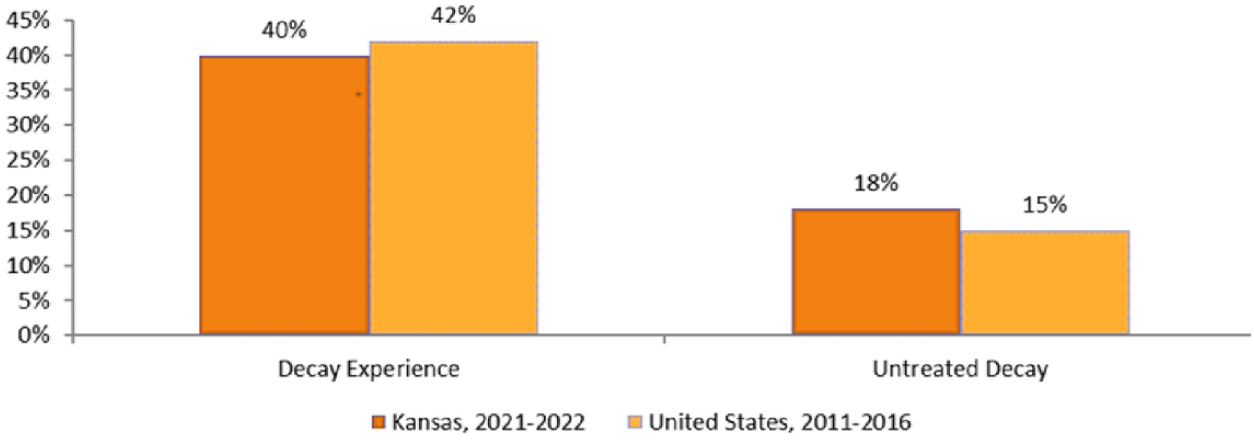
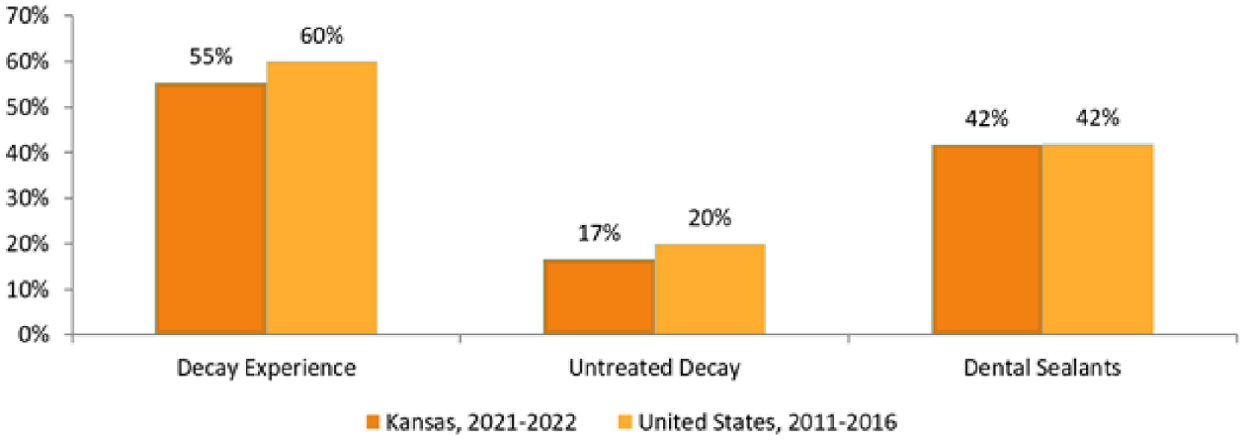


Figure 2: Percentage of **3rd Grade** Children with Decay Experience, Untreated Decay and Dental Sealants; Kansas (2021-2022) Compared to U.S. Average (NHANES 2011-2016)[2]



Decay experience is a term used to describe teeth with untreated decay or dental restorations, including extracted teeth due to decay. This definition is used for both primary and permanent dentition and is approved by the Council of State and Territorial Epidemiologist (CSTE) for the National Oral Health Surveillance System (NOHSS). Untreated decay, specifically referring to dental cavities or tooth decay that has not received proper treatment, is also a CSTE-approved indicator for NOHSS. On the other hand, treated decay refers to teeth that have received a dental

filling, crown, or have been extracted due to decay. For children who require early or urgent dental care, restorative dental care is necessary. Urgent dental care is defined as requiring restorative dental care within 24-48 hours due to pain or infection. Dental sealants are a plastic-like coating applied to the chewing surfaces of back teeth, forming a physical barrier to protect against decay. While dental sealants on permanent molars are a CSTE-approved indicator for NOHSS, information on dental sealants is not provided for kindergarten children since they do not typically have permanent molars. The National School Lunch Program (NSLP) is a federal program that provides nutritionally balanced, low-cost, or free lunches to children each school day, with eligibility guidelines updated annually[2].

In terms of protective dental sealants, 42% of Kansas third-grade children have them, which is the same as the national average. The need for dental care is also evident in Kansas. Of the Kansas kindergarten children with decay experience, only 54% have had all their teeth treated, 10% have had some teeth treated, and 36% have untreated decay without any evidence of treated decay. Among third-grade children with decay experience, 71% have had all their teeth treated, 12% have had some teeth treated, and 17% have untreated decay without any evidence of treated decay. Significant socioeconomic oral health disparities exist in Kansas. Children attending lower-income schools have a significantly higher prevalence of decay experience and untreated decay compared to those attending higher-income schools[2].

V. School-Based Oral Health Programs

School-Based Oral Health Programs (SBOHP) are designed to provide dental care to children and reduce barriers to accessing dental services. SBOHP typically includes dental education, oral screenings, fluoride applications, sealant placement, and referrals for follow-up dental treatment. One of the efforts to improve the oral health of children is by implementing school-based oral health promotion programs, as proposed by the World Health Organization (WHO)[9]. Schools serve as ideal settings for health promotion as they can reach most school-aged children and provide important networks to their families and communities. School-based programs can also help increase children's access to dental services, especially those from disadvantaged socio-economic backgrounds[10]. Children benefit from receiving oral health screenings and dental care in a familiar and non-threatening environment. Parents benefit from not having to take time off from work for dental appointments. SBOHP also benefits schools by reducing time out of the classroom and demonstrating a commitment to the welfare of their students[11]. SBOHPs present an opportunity to tackle various socio-economic factors influencing oral health, as they offer alternative and convenient access points for care. An amalgamation of comprehensive care models showcased an enhancement in oral health, as barriers such as transportation, missed appointments, and lack of parental engagement were overcome[10]. To maximize the effectiveness of SBOHPs, national experts have recommended the implementation of supporting public policies such as the utilization of dental hygienists or other qualified providers at the highest level of their licensure[12].

The Bureau of Oral Health has implemented a statewide program for an oral health screening with the purpose of fulfilling the requirement of The Kansas State Statute for Annual Dental Inspection (K.S.A. 72-6251). In accordance with this program, dental professionals, including dentists and dental hygienists, are providing dental screenings in their respective local communities, with the results being sent home to parents and guardians by school nurses. Annually, over a hundred thousand children ranging from pre-K to Grade 12 are being screened throughout Kansas. Subsequently, the school nurses aggregate the data and forward it to the Bureau of Oral Health, where it is included in the annual reports. The school nurses express their gratitude for the screening program and are pleased that the children are receiving such attention to their oral health. Additionally, the program is highly beneficial for parents, as it enables them to become informed about any evident dental concerns, and the children can receive professional dental care for any issues identified[13].

VI. Dental Screenings at Schools: First Step Towards Prevention of Oral Health Problems

School dental screenings involve a dental health professional examining children's oral cavities in a school setting and informing parents of their child's oral health status and any necessary treatments. The screenings identify potential issues before symptomatic disease onset, promoting preventive and therapeutic oral healthcare[14]. They play a vital role in promoting children's oral health by detecting and treating oral health problems early, preventing pain, and complex procedures. Furthermore, screenings identify children with dental anxiety, requiring additional support. Early detection improves overall oral health and well-being; while educating children and families on good oral hygiene habits, healthy eating, and regular dental check-ups. Promoting good practices helps children develop lifelong healthy habits.

Dental screenings play a crucial role in promoting oral health, particularly in cases where there is a lack of accessibility to dental care. The accessibility of regular dental care remains a challenge for many Americans, particularly those with limited financial resources, no dental insurance, or restrictions on their veterans, Medicare, and Medicaid health insurance coverage. These groups of individuals who cannot obtain adequate dental care for optimal oral health are collectively referred to as underserved populations. These underserved populations may include those who are classified as poor, racial or ethnic minorities, children under the age of five, persons with disabilities, place-bound older adults, veterans, members of the LGBTQ+ community, individuals with special health care needs, and those with complex medical conditions, such as HIV/AIDS. Other underserved groups lack access to dental care because providers are unwilling to accept payments from federally funded programs like Medicaid, or those residing in areas with a shortage of dental professionals, such as inner-city or rural areas[15]. By detecting potential dental issues early on, dental screenings can help prevent the need for more invasive and costly procedures in the future. Thus, while the lack of accessibility to dental care is a significant

challenge, dental screenings can provide an important first step in promoting oral health and identifying individuals who require additional support and services.

VII. The Gap

The primary objective of the oral health workforce in the United States is to fulfill the oral health needs of the population. This objective is achieved through the concerted efforts of professionals and other supporting personnel who offer direct care and preventive services in diverse settings. The configuration of this workforce is influenced by multiple factors, such as the oral health requirements of the public, patients' awareness and habits regarding preventive health measures, and the policy and regulatory frameworks that govern the location of oral health providers. The pressing need to enhance access to care has stimulated initiatives aimed at creating novel workforce models and expanding existing ones, including the development, and training of new allied health professionals[16].

Workforce Shortages Nationwide

The oral health workforce in the United States encompasses a variety of professionals, including dentists and allied health professionals such as dental hygienists, dental therapists, dental assistants, dental laboratory technicians, and community dental health coordinators (CDHCs). These professionals provide care to patients through a collaborative approach, working in a range of settings that includes solo and group dental practices, community clinics, academic institutions, commercially owned clinics, hospitals, and government agencies at the federal, state, or local level[14]. The United States has more than 5,800 dental health professional shortage areas (HPSAs) affecting almost 58 million people, including Kansas which has 58-111 HPSAs. Professional burnout is another concern that needs to be addressed. A study by the Mayo Clinic indicated that over 50% of physicians experienced at least one symptom of burnout, and other healthcare providers are similarly impacted[15].

Importance of Workforce for Oral Health Screenings

Rural communities encounter various obstacles such as limited access to healthcare providers, inadequate insurance coverage, low incomes, and aging populations with complex care needs[17]. To enhance oral health care accessibility for rural populations, a multifaceted approach is necessary, which can be tailored to fit the diverse needs, resources, cultural, and political environments of different communities. Utilizing interprofessional care, shared goals, health informatics, telehealth, and other technologies in combination with community-wide public health initiatives and novel workforce models can enhance access to care for underserved patients while simultaneously improving care quality[15].

A greater workforce for oral health screenings is essential for various reasons. It enhances accessibility to oral health services for underserved and vulnerable populations, identifies and addresses oral health issues earlier, caters to diverse patient needs, and educates the public on oral

health and preventative measures. A more extensive workforce is crucial for promoting oral health and improving quality of life.

The Kansas School Oral Health Screening Program is a training course that aims to provide standardized data collection and ensure compliance with Kansas Law. The training program is designed to teach dental screeners in Kansas about the uniformed school screening process and enable them to identify and refer children with dental disease for treatment. The course provides official continuing education credit for dental professionals, and learners from other professions can use the certificate to self-submit for education credit to their boards of practice. The training covers various topics, including screening terminology, organizing oral health screenings in schools, identifying the roles of school nurses and oral health screeners, and conducting oral health screenings consistent with other screeners statewide. The course was developed by the Kansas Department of Health and Environment; the Bureau of Oral Health, and is supported by many organizations, including the Delta Dental of Kansas Foundation, Children's Mercy Family Health Partners, and Health Resources Service Administration (HRSA)[18].

VIII. Need for Change in Legislation?

Proposed amendment K.S.A. 72-6252 seeks to authorize school boards to provide a designated place of inspection and competent, trained dental screener to conduct dental screenings. The board of education may provide compensation for such services and make necessary rules and regulations for the proper conduct of the inspection. As per K.S.A. 72-6253, dentists are not allowed to perform any work other than inspection and reporting without the consent of the parents or guardians of the child. This implies that dentists cannot make any decisions on the necessary dental work that may be required after the inspection. Therefore, allowing other trained healthcare personnel, such as dental hygienists, to perform dental screenings in schools can be a viable solution. By expanding the pool of qualified personnel who can conduct dental screenings, this proposed amendment can enhance access to oral healthcare services for students, promote better communication and coordination among healthcare providers, and ultimately improve the overall quality of oral healthcare services in schools.

IX. Impact of Change

Feasibility Assessment

The proposed amendment aims to address the limited availability of dental professionals for in-school screenings by training more school healthcare professionals to provide them. This would increase the feasibility of providing dental screenings in schools, as it would not rely solely on the voluntary services of outside dentists and dental hygienists. By providing free training and technical assistance, the Bureau of Oral Health aims to ensure that school healthcare personnel are properly equipped to provide dental screenings to students.

Financial Implications

Currently, dental screenings in schools are provided by dentists and dental hygienists on a voluntary basis, which can result in limited availability and revenue loss for dental offices. However, the proposed amendment would not impose any financial burden on school districts, as the training and equipment for school healthcare personnel to perform dental screenings would be provided by the Bureau of Oral Health at no cost. This would increase access to dental screenings for school-age children and reduce the financial burden on outside dental professionals who currently provide this service on a voluntary basis.

Stakeholder Impact

The proposed amendment would have a positive impact on school districts, as they would have increased access to dental screening opportunities for students with additional resources. Dentists and dental hygienists may choose to continue volunteering for community screenings, but the burden of providing in-school screenings would be lifted. The trained school healthcare personnel would be able to provide reliable and consistent dental screenings for students, leading to improved oral health outcomes.

Potential Issues & Strategies

One potential issue with the proposed amendment is ensuring proper training and education of school healthcare staff on dental screening techniques. To address this, the Bureau of Oral Health offers a free online training course for designated screeners, which will be accessible to all school healthcare personnel. The BOH will also provide technical assistance and support to newly trained dental screeners to ensure that they are equipped to provide high-quality dental screenings to students. This would help to address any potential issues with the feasibility of implementing the proposed amendment.

X. Impact of Oral Health on Overall Health

Oral health plays a critical role in overall health and is a contributing factor, symptom, and consequence of many chronic diseases. The relationship between oral health and chronic diseases can be better understood through collaborative efforts in health promotion, disease prevention, early intervention, and coordinated clinical management, resulting in more efficient and effective public health approaches. Neglecting oral health can lead to adverse health outcomes, affecting general health, health-related quality of life, nutrition, self-image, social interaction, mental health, and physical health[19,20]. Oral health impacts systemic health, especially in individuals with chronic diseases such as diabetes, cardiovascular disease, and obesity[20,21,22]. Health behaviors such as tobacco use, and consumption of high-sugar foods and beverages can have adverse consequences for oral and overall health[23]. However, few state and local public health programs in the United States have integrated oral health and chronic disease prevention interventions and health promotion messages, leading to missed opportunities for improved health outcomes for

populations. Common risk factors such as tobacco and alcohol use and dietary behaviors associated with obesity and elevated blood sugar are shared by the most common oral diseases and noncommunicable chronic diseases[24]. The lack of coordination between oral health and chronic disease programs in state health departments hinders the promotion of disease prevention and health promotion messages and strategies that can achieve mutually beneficial outcomes[24].

XI. Conclusion

In conclusion, oral health is an essential component of overall health, and it is crucial to promote good oral health habits and provide access to dental care services to prevent and manage oral health problems. The proposed amendment to increase dental screenings in schools by providing training for screenings in schools is a step in the right direction toward improving oral health outcomes for school-age children. By providing free training and technical assistance, the Bureau of Oral Health can ensure that school healthcare personnel are equipped to provide reliable and consistent dental screenings to students, reducing the burden on outside dental professionals and increasing access to dental screenings for school-age children.

Coordinated efforts between oral health and chronic disease prevention programs can achieve mutually beneficial outcomes and improve health outcomes for populations. It is important to prioritize and invest in oral health promotion and disease prevention interventions to improve overall health and well-being.

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XIII. Appendix

1. The Kansas State Statute for Annual Dental Inspections 72-6251

72-6251

Chapter 72 - SCHOOLS Article 62 - STUDENT HEALTH

Sections 51 – 53

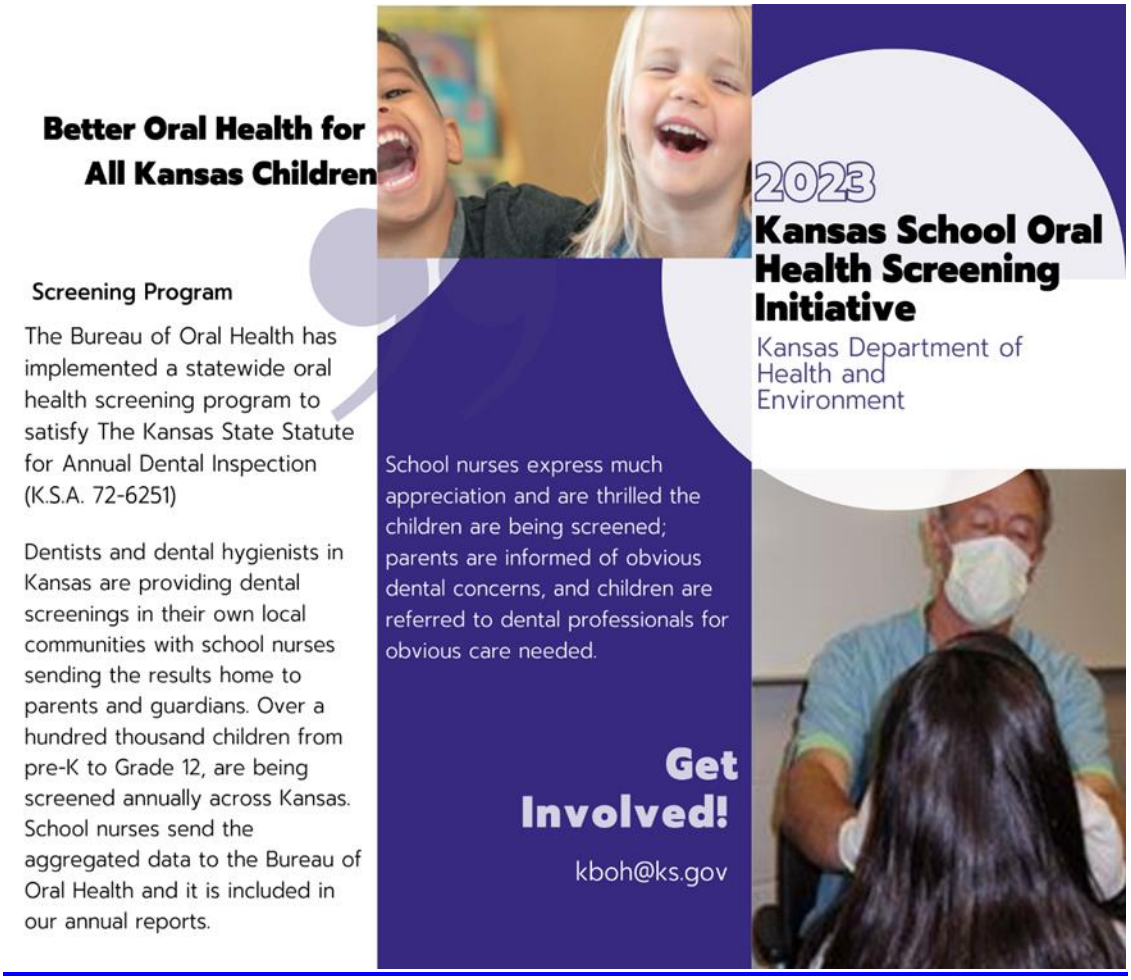
THE KANSAS STATUTE FOR ANNUAL FREE DENTAL INSPECTION (K.S.A.72-6251) was initially established in 1915, revised in 1923 and recoded in 2017. This statute states:

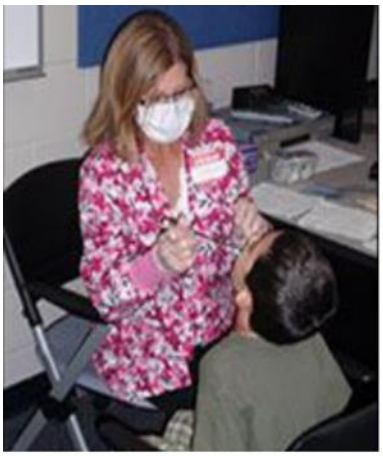
"Annual free dental inspection; exceptions. The boards of education of cities of the first and second class and school boards of school districts are hereby required to provide for free dental inspection annually for all children, except those who hold a certificate from a legally qualified dentist showing that this examination has been made within three months last past, attending such schools."

History: L.1915, Ch. 308, § 2; L. 1919, Ch. 263 § 1 June 17; R.S. 1923, 17-5201. Recoded 2017. Source or Prior Law: 72-5201.

Appendix C - Trifold Brochure for KMOM Event

This appendix consists of the tri-fold brochure created to recruit volunteers or contracted screeners, distributed at the KMOM event in Topeka. The brochure includes information on the roles and responsibilities of volunteers or contracted screeners, as well as a sample contract. Its purpose is to attract individuals interested in contributing to the Screening Program of the BOH and ensure that they have a clear understanding of their roles and expectations.





Sample Contract

In order to achieve the mutual goal of completing oral health school screenings, both parties agree to the following:

- 1. The purpose of this contract is to increase the number of school age children who have received an oral health screening during this school year.
- 2. The goal of the Contract is to be attained within the constraints of available resources including funds available through the Centers for Disease Control and Prevention Cooperative Agreement.
- 5. Total reimbursement under this contract will not exceed $4500 ($300 per school screened).
- 4. This Contract will become effective after the signatures are affixed by the representatives of both parties.
- 5. The duration of this contract is for a period beginning Jan 1, 2022 and ending May 30th, 2022.
- 6. The Contract, including attachments, may be amended as necessary. Such amendments shall be in writing and duly executed by both parties.
- 7. Binding Appendices. The provisions found in Appendix A, (Contractual Provisions Attachment [Form DA-146a, Rev. 07-19]), Appendix B, (Whistleblower and Non-Debarment Certification), Appendix C, (Agreement to Comply with the Policy Against Sexual Harassment, Discrimination, and Retaliation) which are attached hereto, are hereby incorporated in this Agreement and made a part thereof.
- 8. This Agreement is contingent upon the availability of state or federal funds and may be terminate by thirty (30) day advance written notice by KDHE.

KDHE Agrees:

1. To provide (insert name of screener here) with $300 per school screened. Funds will be released after completion of each school screened on an on-going basis until the end of this contract period.
2. To provide (insert name of screener here) with necessary supplies to complete oral screenings (gloves, tongue blades, masks, hand sanitizer, and toothpicks).

Screener Agrees:

1. To provide verification of basic screening survey calibration online training prior to completion of initial school screening.
2. To complete oral screenings at sites assigned by KDHE.
3. To provide oral screenings to children in schools according to basic screening survey protocol.
4. To attend or be available (via phone or email) for meetings upon the request of KDHE should the need arise. Communications either by email or phone should be responded to within 2 business days.
5. If screener is unable to continue providing screenings during the grant period for any reason, she must notify KDHE as soon as this is evident

Appendix D - Article for Oral Health Newsletter

This appendix consists of the article written for the Oral Health Newsletter outlining proposed statutory changes to improve access to dental screening services for Kansas students. The article provides a clear overview of the proposed changes and explains how they could help raise awareness and support for the initiative. It is scheduled to be published in the Fall edition of 2023 of the Oral Health Newsletter.

Oral Health Newsletter Article for Fall 2023 Edition

From Volunteers to Trained Professionals: A Proposal to Expand Dental Screenings in Kansas Schools

The secret to a healthy and happy life is often a lot simpler than we think. Did you know that oral health is essential to our overall well-being? Yes, you read that right[1]! And it's not just about brushing your teeth twice a day (although that's important too!). It's about ensuring that every child in Kansas has access to dental screenings, so they can develop good oral health practices from a young age[2]. However, the current provisions of K.S.A. 72-6252 limit the designation of Dentists as the only healthcare personnel who can provide this screening, leading to inconsistencies in the availability and quality of care[3]. That's why the Bureau of Oral Health (BOH) is proposing some important changes to the Kansas Dental School Screening Program.

The BOH wants to expand the pool of qualified healthcare personnel who can provide dental screenings in schools, beyond just Dentists. The proposed amendment would allow trained school healthcare personnel to conduct the screenings and communicate the results to parents or guardians. By broadening the pool of qualified personnel who can conduct dental screenings, this amendment aims to enhance access to oral healthcare services for students and improve the overall quality of oral healthcare services in schools.

Currently, dental screenings in schools rely on the voluntary time and resources of Dentists and Dental Hygienists, which can lead to limited availability and a loss of revenue for these healthcare professionals. But with the proposed changes, more trained healthcare professionals will be able to perform the screenings at no cost to school districts. This means that all students will have access to essential dental screenings, and it will reduce the burden on outside Dentists and Dental Hygienists who currently volunteer to provide this service.

Promoting better oral health outcomes for school-aged children in Kansas is a priority for the BOH, and this proposed amendment is a crucial aspect of achieving that goal. By starting with the most vulnerable population, children, we can improve oral health education and practices throughout their lives. So, let us keep our smiles shining bright and support these important changes to ensure every child has access to the dental care they need!

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