



Tennessee State Oral Health Plan

Tennessee Department of Health | 2017





Introduction

Foreword

Oral health plays a determining role in almost every aspect of our day to day lives. It directly impacts our employment status and school attendance; it affects daily tasks such as eating and speaking that are easy to take for granted until we are faced with poor oral health. Tooth decay is one of the most common chronic conditions in the United States, and it is essential that we as a state work to address oral health as part of our effort to ensure all Tennesseans have the opportunity to achieve their personal state of optimal health.

By age 34, more than 80% of people have had at least one cavity. More than 40% of adults have felt pain in their mouth in the last year. On average, the nation spends more than \$113 billion a year on costs related to dental care. More than \$6 billion of productivity is lost each year because people miss work to get dental care.

Source: "Oral Health Basics", Centers for Disease Control and Prevention, Updated October 8, 2015. https://www.cdc.gov/oralhealth/basics/index.html, accessed March 2017.

The Tennessee Department of Health has identified four things that are driving all 10 of our 10 leading causes of death in Tennessee and in our Nation. We call them the "Big 4": physical inactivity, excessive caloric intake, tobacco and nicotine addiction, and other substance use disorders. Importantly, the Big 4 are not separate and distinct challenges; they are closely connected, each delighting our brain's reward system, our human wiring that drives us both to take care of our children and to indulge in that next cigarette. In other words, the temptations of the "Big 4" can be tangled together and magnified by our very nature as human beings. They can drive us to seek them out because they satisfy deeply felt needs and can make us happy, or seem to, at least for a while.

Oral health has been linked to other chronic diseases such as diabetes and heart disease. Additionally, it is linked with poor health behaviors including tobacco use, substance abuse, and consumption of foods and drinks with high levels of sugar. In this way, oral health is connected to the Big Four and is an integral part of the Department of Health's efforts to improve the health of all Tennesseans.



As a nation we are coming to realize that merely doubling down on health care spending, most of which is actually spent on sick care, doesn't work. The truth is, we cannot spend, regulate, or treat our way out of our current health crisis. We can, however, prevent our way out of it by blocking disease before it starts by thinking and acting upstream through primary prevention.

Primary prevention has always been the critical value multiplier of the health enterprise. It is where most of our substantial gains in years of life and life in years have occurred. Consider, for instance, the issue of safe drinking water, a prime "upstream" example. Primary prevention is how those of us in the health enterprise, as engaged as we may be in providing direct services, most effectively leverage our work and resources. It is also how we, as individuals, and as members of a family, can get the greatest purchase on a longer, freer, more fulfilling life course. This is the core of true population health: giving people the greatest opportunity to fulfill all their lives have to offer, limiting the need for health care services throughout their lives. This doesn't mean access to health care is not important. It is essential, sometimes even critical, at various points in our life's course. Yet, the behaviors that lead to tooth decay and many chronic conditions can't be cured by health care. They must be addressed by primary, upstream efforts that prevent issues like tooth decay, periodontal disease, and tooth loss before they present as an issue. This can be accomplished through efforts that have proven to both save money and prevent tooth decay, efforts such as community water fluoridation, school dental sealant, and fluoride varnish programs.

Oral Health Plan Recommendations

In keeping with a focus on prevention, the oral health plan sets forth a series of recommendations that will work upstream to prevent oral health conditions from occurring in the first place while also ensuring oral health care services are available when necessary. These recommendations are broken into four key areas: 1. Monitoring Dental Disease in Tennessee, 2. Oral Health Education and Advocacy, 3. Prevention, and 4. Oral Health Resources and Workforce. These recommendations will be carried out over the next five years in partnership with state, local, and community stakeholders. The recommendations will serve as the first steps in the journey to protect and improve the overall health of people in the state and to guarantee oral health is included in the picture of overall health.

Conclusion

The health challenge of our time—combating the Big 4—requires new thinking to address these drivers of chronic disease, disability, and early death at their roots. By recognizing oral health as



an integral part of overall health, we can make strides in our efforts to create an environment in which every Tennessean has the opportunity to achieve his or her own personal state of optimal health. The oral health plan is working in conjunction with the State Health Plan by utilizing the State Health Plan's three simple questions:

- 1. Are we creating and improving opportunities for optimal health for all?
- 2. Are we moving upstream to prevent disease?
- 3. Are we learning from and teaching others?

By joining these plans under one framework, we are aligning efforts and resources within TDH, and among our partners, to guarantee efficiency and efficacy in the ongoing work of making Tennessee the healthiest state that it can be. We look forward to working with partners all across the state to take a bite out of chronic disease through a focus on oral health.

John J. Dreyzehner, MD, MPH, FACOEM Tennessee Commissioner of Health



Executive Summary

The 2017 Edition of the Tennessee State Oral Health Plan serves as Tennessee's first statewide, comprehensive oral health plan. This plan supports the mission of the Tennessee Department of Health (TDH), "to protect, promote, and improve the health and prosperity of people in Tennessee". The plan was formulated in accordance with Public Chapter 0968, which authorized the Tennessee Department of Health to develop a "comprehensive, state oral health plan".¹

Tennessee Department of Health Mission

"Protect, Promote, and Improve the health and prosperity of people in Tennessee."

Purpose of the State Oral Health Plan

The state oral health plan, in coordination with the State Health Plan, offers a blueprint for improving the health of people in Tennessee.² Both plans focus on the importance of "upstream" primary prevention, working to block disease before it begins, in an effort to ensure every Tennessean has the opportunity to achieve optimal health.

The Tennessee State Oral Health Plan frames the issues of dental disease while focusing on four areas to address oral health in Tennessee: 1) Monitoring Disease in Tennessee, 2) Oral Health Education & Advocacy, 3) Prevention, and 4) Oral Health Resources & Workforce. These are the four overarching areas the oral health plan will address to improve the oral health of Tennesseans.

Key Recommendations

The plan outlines a series of recommendations to be carried out over the next five years with assistance from state, local, and community partners. These recommendations will serve as the

¹ For more information on Public Chapter 0968, see appendix A.

² For more information on the State Health Plan, visit http://tn.gov/health/article/state-health-plan.



first steps in the journey to protect and improve the overall health of people in the state and to guarantee oral health is included in efforts to address overall health and well-being.

Monitoring Dental Disease in Tennessee

- Recommendation 1: Develop a Tennessee oral health data source grid specific for the state
- Recommendation 2: Caries Risk Assessment on all patients
- Recommendation 3: Research best practices for a surveillance system
- Recommendation 4: Develop TDH surveillance system to monitor the Tennessee Cancer Registry and craniofacial health in Tennessee

Oral Health Education and Advocacy

- Recommendation 1: Raise dental provider awareness of their role in substance abuse prevention
- Recommendation 2: Work with existing tobacco prevention programs for public awareness of the effects of tobacco in the oral cavity
- Recommendation 3: Work with community partners to increase public awareness of the impact of diet and sugary drinks on oral health
- Recommendation 4: Work with existing chronic disease prevention programs to develop messaging and an educational course for healthcare providers
- Recommendation 5: Highlight integrated care models, specifically the Meharry Interprofessional Collaboration Model

Prevention

- Recommendation 1: Organize state-wide information and support meeting with community stakeholders to raise awareness of the benefits of community water fluoridation
- Recommendation 2: Encourage greater use of sealants by dental providers in order to prevent pit and fissure caries in permanent molar teeth of children
- Recommendation 3: Advocate for the usage of Silver Diamine Fluoride and provide education on its effectiveness as a preventative measure, specifically utilizing the University of Tennessee Health Science Center Silver Diamine Fluoride model
- Recommendation 4: Expand efforts to adopt the Tooth Wisdom Get Smart About Your Mouth Workshops for the elderly population



 Recommendation 5: Advocate the "lift the lip" and fluoride varnish campaigns for medical providers

Oral Health Resources and Workforce

- Recommendation 1: Map existing providers/activity/services of oral health efforts for public and provider use
- Recommendation 2: Actively seek funding for TDH dental clinics in order to expand the targeted population to include uninsured adults and partner with Safety Net Clinics to expand their oral health reach
- Recommendation 3: Request TDH, Health Related Boards collect information on practicing status of dentist and hygienist during licensure and license renewal
- Recommendation 4: Raise awareness of the Centers for Disease Control and Prevention Summary of Infection Prevention Practices in Dental Setting
- Recommendation 5: Raise awareness of the American Dental Association Center for Evidence-Based Dentistry Guidelines



Tennessee State Oral Health Plan 2017





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The State Oral Health Plan Purpose and Use

Health impacts every aspect of our lives. From our ability to learn to our ability to work, the quality of our lives depends heavily on how healthy we are. The State Health Plan exists to contemplate the factors that determine health, consider the resources we can utilize to improve health, and coordinate the people who desire to lead the way towards making people in Tennessee healthier. This first edition of the Tennessee State Oral Health Plan serves as a unique opportunity to enhance the state's focus on oral health and ensure it is included in the Department's efforts to improve the overall health and well-being of people in Tennessee. The State Health Plan and Tennessee State Oral Health Plan have been designed to align resources and efforts in the state that address health and prioritize specific recommendations to create an environment of aligned action.³

Both plans understand and prioritize the importance of primary prevention in the Department's efforts to create an environment that allows every individual to reach a personal state of optimal health. Optimal health is a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity. In order to help each individual in the state achieve optimal health, it is important that policies, programs, and interventions focus on improving health on a broader scale. To achieve this, the oral health plan prioritizes education, advocacy and prevention. Addressing oral health through community water fluoridation, dental sealant and fluoride varnish programs, prevents dental disease and costly dental expenditures throughout the lifespan, and plays a key role in reducing disparities in oral health.

The 2017 Tennessee State Oral Health Plan serves to frame the issues of dental disease, inventory the efforts currently underway by the Department of Health to improve oral health in the state, and set forth a series of recommendations that are organized into primary focus areas. Monitoring Disease in Tennessee, Oral Health Education & Advocacy, Prevention, and Oral Health Resources & Workforce, are the four overarching areas the state oral health plan addresses to improve the oral health of Tennesseans. The recommendations outlined in this plan are to be carried out over the next five years with the assistance of state, local, and community partners.

³ For more information on the State Health Plan, visit http://tn.gov/health/article/state-health-plan.

⁴ Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.



Figure 1 - Oral Health Plan Outline: Framing the Issue of Dental Disease

- 1. Monitoring Dental Disease in Tennessee
 - 2. Oral Health Education & Advocacy
 - 3. Prevention
- 4. Oral Health Resources & Workforce

Oral Health Efforts of the Tennessee Department of Health

Oral Health Services, a division within TDH, provides programs for the prevention of oral disease and education of the public regarding the value of good oral health. In addition, the program identifies those without access to dental care and attempts to assure basic care, as well as care for acute dental issues. The division has identified key objectives that are pursued in partnership with local and metro health departments and Tennessee Coordinated School Health.

Table 1 - Oral Health Services Objectives

Oral Health Services Objectives

To encourage all community water systems in this state to initiate or continue fluoridation

To provide information and support to state and county officials, as well as the general public on community water fluoridation

To provide school-age children with oral disease prevention and control programs that include school-based:

- Screening and referral of children needing dental care
- Pit and fissure sealant and fluoride varnish applications
- Oral health education

To provide oral health screenings and fluoride varnish applications for children in all 126 public health departments across the state by Public Health Nurses

To provide technical assistance and help coordinate statewide public health dental clinics that provide dental care to segments of the population that have difficulty accessing care



School Sealant Program

The School Based Dental Prevention Program (SBDPP) is a state-wide preventive dental program operating in public schools where at least 50 percent of the student body receives free and reduced lunch.⁵ The program targets all kindergarten through eighth grade students. Dental staff utilizes portable equipment to provide free dental screenings and referrals to address unmet dental needs in this population. Health education, preventive sealants, and fluoride varnish are also provided. Additionally, staff provides the student and the student's guardians with information regarding TennCare eligibility and the application process. In September 2016, the TDH's School Based Dental Prevention Program was selected by the Association of State and Territorial Dental Directors as a Best Practice Project. The TDH SBDPP has placed over 4 million sealants on children in Tennessee schools since 2001.⁶



Before Sealant

After Sealant

Local Health Departments

Public health dental clinics provide clinical dental services to segments of the population that would otherwise not receive care. The clinics provide dental services for children under the age of 21 that are enrolled in TennCare and children who are uninsured. The clinics also provide emergency care and limited continued dental care for uninsured adults. Dental clinics housed within local health departments are located in 54 of 89 rural counties and in four of the six metropolitan regions. Clinical

⁵ For more information on Free and Reduced-Price Meals, visit http://www.tennessee.gov/education/article/free-and-reduced-price-meals.

⁶ To access the report, visit http://www.astdd.org/state-activities-descriptive-summaries/?id=230.



dental services are provided on a part-time or full-time basis, depending on the location. Specific information on availability of services or eligibility guidelines can be obtained from the local health department in the county of interest.

The Public Health Nurse's Fluoride Varnish Program is offered in all 95 counties at the 126 public health departments across the state. The nurses provide oral health screenings and fluoride varnish applications for children ages 0 to 21.

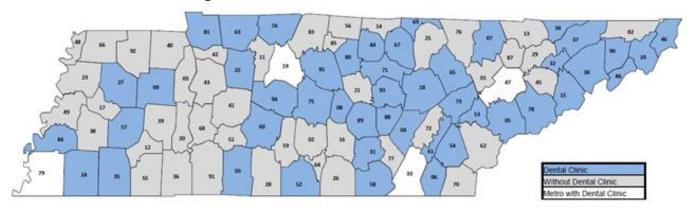


Figure 2 - Tennessee Public Health Dental Clinics

	West		Mid Cumberland		South Central		Southeast		Upper Cumberland		East		North East
#	County	#	County	#	County	#	County	#	County	#	County	#	County
3	Benton	11	Cheatham	2	Bedford	4	Bledsoe	8	Cannon	1	Anderson	10	Carter
9	Carroll	22	Dickson	16	Coffee	6	Bradley	14	Clay	5	Blount	30	Greene
12	Chester	42	Houston	28	Giles	26	Franklin	18	Cumberland	7	Campbell	34	Hancock
17	Crockett	43	Humphreys	41	Hickman	31	Grundy	21	DeKalb	13	Claiborne	37	Hawkins
20	Decatur	63	Montgomery	50	Lawrence	54	McMinn	25	Fentress	15	Cocke	46	Johnson
23	Dyer	74	Robertson	51	Lewis	58	Marion	44	Jackson	29	Grainger	86	Unicoi
24	Fayette	75	Rutherford	52	Lincoln	61	Meigs	56	Macon	32	Hamblen	90	Washington
27	Gibson	81	Stewart	59	Marshall	70	Polk	67	Overton	45	Jefferson		
35	Hardeman	83	Sumner	60	Maury	72	Rhea	69	Pickett	53	Loudon		
36	Hardin	85	Trousdale	64	Moore	77	Sequatchie	71	Putnam	62	Monroe		METROS
38	Haywood	94	Williamson	68	Perry			80	Smith	65	Morgan	#	County
39	Henderson	95	Wilson	91	Wayne			88	Van Buren	73	Roane	19	Davidson
40	Henry							89	Warren	76	Scott	33	Hamilton
48	Lake							93	White	78	Sevier	47	Knox
49	Lauderdale									87	Union	57	Madison
55	McNairy											79	Shelby
66	Obion											82	Sullivan
84	Tipton												
92	Weakley												

Source: Tennessee Department of Health, updated May 20, 2017.

Funding for Safety Net providers

In 2008, as part of its Safety Net investments and in recognition of the shortage of oral health care for the uninsured in Tennessee, TDH initiated a dental safety net program for emergency



dental services for uninsured adults ages 19 to 64. Grants were awarded to seven dental providers; emergency dental services (extractions) were provided to approximately 3,285 uninsured adults in the first year. By fiscal year 2015, 17 grantees received emergency dental grant awards and provided 18,938 extractions.

Safety Net Dental Clinics FY2017 Ħ Sullivan M Weakle H H Putnar Ħ Williams Maury Bedford Lewis Meigs McMir n n Wayne McNairy Lincoln W

Figure 4 - Tennessee Safety Net Dental Clinics FY 2017

Safety Net Dental Clinic

Source: Tennessee Department of Health.

In fiscal year 2016, 20 sites were awarded approximately 1,300,000 dollars in grant funds from TDH. These sites reported performing 23,857 extractions. A program expansion for hygienic cleaning and oral hygiene counseling was fully implemented for all dental grantees over a 6 month period resulting in 1,779 patient cleanings and counseling sessions in fiscal year 16. This expansion was fully implemented in fiscal year 17.



FY2008

Dental Providers and Extractions FY2008-2016 21 **Dental Providers** 17 16 16 17 15 15 Extractions 23.857 22,464 20,569 18.778 18,938 18,016 17,982 6,381 3.285

FY2009 FY2010 FY2011 FY2012 FY2013 FY2014

Figure 3: Safety Net Dental Providers and Emergency Extractions, FY 2008 - 2016

Source: Safety Net Grantee Award Listing and Grantee Quarterly Reports

Tennessee Oral Health Timeline

<u>1924-1928:</u> Commonwealth Fund Child Health Demonstration's (CHD) study of children from Rutherford County, Tennessee, between 1924 and 1928. The CHD's philanthropic venture promoted dental hygiene services during the class period.⁷

<u>1928 - 1929</u>: Dr. J.C. McGuffin was the first dentist employed by the Kingsport School System where he organized a school dental health program that consisted of inspections of students and services to indigent children.

<u>1935:</u> The dental health program of the TDH was established as one of the first dental public health programs in the United States. Dr. Oren A. Oliver was the first dental representative to

FY2015 FY2016

⁷ For more information on the Commonwealth Fund Child Health Demonstration visit, http://sos.tn.gov/products/tsla/dr-harry-mustard-photo-album.



the Tennessee Public Health Council as an advisory member. He later organized the Dental Hygiene Service in the Tennessee Department of Public Health. ⁸

1937: A cooperative dental program designed to provide treatment by private dentists to elementary school children of low-income families was started. This program as financed by TDH with matching local funds. During its first year of operation, 138 dentists provided dental treatment to more than 25,000 children in 1,947 schools in 51 of the state's 95 counties.

A first of its kind annual postgraduate dental seminar series was established and co-sponsored by the Tennessee Department of Public Health and the Tennessee State Dental Association.

1945: The TDH produced an animated color film entitled, "Winky the Watchman". Since its debut the film was viewed by millions of school children across the United States.⁹

1947: Congress appropriated \$1 million to advance the concept of topical applications of sodium fluoride as a means of preventing tooth decay. The Tennessee Department of Public Health partnered with the U.S. Public Health Service and the Chattanooga-Hamilton County Health Department to begin a research project on the use of fluoride to prevent tooth decay. A demonstration team of one dentist, two dental hygienists, and a secretary was assigned to Tennessee from 1947-1948.

1948: The U.S. Children's Bureau (now the U.S. Department of Health & Human Services) and Meharry Medical School began a project in 1947 to incorporate dental health services into Meharry's Department of Pediatrics. In 1948, the U.S. Children's Bureau established postgraduate courses in children's dentistry at the University Of Tennessee School Of Dentistry.

1951: Milan became the first city in Tennessee to fluoridate its community water supply. It was the second city in the Southeast to fluoridate.

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⁸ "Tennessee Department of Public Health" is a former title for the Tennessee Department of Health.

⁹ To view the film "Winky and the Watchman" visit, https://www.youtube.com/watch?v=h8pfXigbPRI&feature=youtu.be.



1952: Three 'plastic' teams were organized in Tennessee to provide consultation and clinical services to the Crippled Children's Service of the Tennessee Department of Public Health in treatment of children with cleft lips and/or palates or other dentofacial disfigurements.

1953: The dental public health program was elevated to division status within the department and granted legislative authority with state appropriations included for it in the budget of TDH.

1954: Tennessee was one of the first states to conduct pre-fluoridation surveys of caries prevalence among school children 6-14 years of age.

1961: The *Dental Health Guide for Teachers of Tennessee* was published by the TDH Division of Oral Health. It was one of the first publications of its kind in the country and was copied by many other states.

1962: Tennessee became the first state to erect signs on highways leading into communities advertising that the public water system was approved and fluoridated.

1964: Tennessee became the first state to offer financial assistance to small communities in order to fluoridate their water systems. Consequently, more communities began to fluoridate and dental caries rates began to decline.

1971: Tennessee's Medicaid program (Title XIX) began.

1972: Tennessee became the first state to bring portable dental equipment into schools to conduct pit and fissure sealant programs for children as a public health preventive measure.

1979: Tennessee became the first state to team up with the Centers for Disease Control and Prevention (CDC) to establish a National Fluoridation Training Center at the Fleming Training Center in Murfreesboro, Tennessee. Those attending the fluoridation courses have come from practically every state in the United States and many foreign countries.

A cross sectional statewide dental survey of school children ages 5-19 was conducted to evaluate the dental health status of school children in Tennessee following twenty-five years of dental health programs. Results showed significant improvements in dental caries rates among school children. Decayed, missing, and filled teeth Index (DMFT) rates decreased by 54%.



1980's: Many of the clinical trials required for approval of second and third generation dental sealants were conducted in the South Central Public Health Region of Tennessee. Also, at this time, results from national caries prevalence surveys showed marked declines in caries prevalence in the permanent and primary dentitions of U.S. children attributed to exposure to topical and systemic fluorides.

<u>1982-94:</u> Dental hygienists were trained by Dr. James R. Hardison in the use of pit-and-fissure sealants in community public health programs in Tennessee. He then published "The use of pit-and-fissure sealants in community public health programs in Tennessee" in the Journal of Public Health Dentistry in the summer of 1983.¹⁰

1985: An investigation of pit and fissure sealant retention in 1,871 children in the Head Start program was conducted in Tennessee in September 1985 to determine the retention of the sealant after application to the occlusal surfaces of primary molars on 3- and 4-year old children. The investigation showed pit and fissure sealants are retained on primary molars at a rate comparable to that expected on permanent molars.¹¹

1988: A third statistically valid statewide oral health survey was conducted to monitor oral disease and disease trends. Survey findings showed a 75 percent decline in tooth decay in the permanent teeth of children and a 55 percent reduction in the primary dentition compared with pre-fluoridation surveys completed in 1954. These declines are attributed to systemic (water fluoridation), and topical (toothpaste) fluoride exposure.

1992: The Oral Health Services Section of TDH received funding from the Preventive Health Services Block Grant to initiate statewide sealant projects for all regions, metro and rural.

1994: Tennessee transitioned from a traditional Medicaid program to a Medicaid Managed Care program, Called TennCare. The TennCare program operates as a Medicaid demonstration

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¹⁰ Hardison J, "The use of pit-and-fissure sealants in community public health programs in Tennessee", J Public Health Dent. 1983 Summer, 43(3):233-9; https://www.ncbi.nlm.nih.gov/pubmed/6355459.

¹¹ Hardison J, Collier D, Sprouse L, Van Cleave M, Dea Hogan, A, "Retention of pit fissure sealant on primary molars of 3- and 4-year-old children after 1 year", The Journal of the American Dental Association. 1987 May (114:5): 613-315.



project under the authority of an 1115 waiver from the Centers for Medicare and Medicaid Services (CMS).¹²

TennCare is considered Medicaid managed care because the State contracts with managed care entities that bear financial risk, in the delivery of healthcare services.

LATE 1990s-early 2000s: The Smile! Tennessee Poster Contest was developed and implemented for 3rd and 4th grade students who had the opportunity to promote the principles of good oral health through their artwork.

2001: TennCare and the TDH partnered through an interagency agreement to provide school-based oral disease prevention services to underserved children in grades K – 8 attending public schools where approximately 50 percent or more of the student population participates in the school lunch programs across the state.

TennCare carved out its dental-benefits program from the larger TennCare program which means that the State contracts directly with a single, statewide Dental Benefits Manager (DBM) to administer the dental-benefits program versus contracting for dental services through a Medical Managed Care Company (MCO).

2004: The Governor signs legislation which amended the state Dental Practice Act to allow public health nurses in public health settings to apply fluoride varnish to the teeth of children under age 21.¹³

2008: The TDH conducted a cross-sectional Oral Health Survey of Children Ages 5 – 11 years. Findings revealed that except for dental sealant prevalence, children in the School Based Dental Prevention Program (SBDPP) (low and moderate-low socio-economic status (SES) schools were

¹³ For more information on the Early Childhood Caries Prevention Program visit, https://tn.gov/health/article/oralhealth-fvp.

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¹² For more information on the TennCare 1115 Demonstration visit, http://www.tn.gov/tenncare/topic/tenncare-1115-demonstration.



at higher risk for poor oral health outcomes when compared to children in moderate and high SES (Non-SBDPP) schools.

2013: TennCare's Partial Risk Dental Contract was implemented, with a threefold objective: first, to increase the number of children receiving dental care; second, to improve the quality of the care they received; and third, to do so in a fiscally sustainable and predictable way.

State statute was amended through legislation to permit dental hygienists in state public health programs to provide oral disease prevention services such as dental screenings, dental sealants, topical fluorides (fluoride varnish), without an oral evaluation by a dentist first.¹⁴

2016: The TDH-Oral Health Services' School Based Dental Prevention Program was recognized as an Association of State & Territorial Dental Directors (ASTDD) Best Practice Approach for Improving Children's Oral Health through the Whole School, Whole Community, Whole Child (WSCC) Model.¹⁵

2017: Over 4 million sealants placed on children in Tennessee through the School Based Dental prevention Programs started in 2001.

¹⁴ For more information on these services for children visit, http://nooga.com/161443/tennessee-children-now-have-improved-access-to-dental-care/.

¹⁵ For more information on the Whole School, Whole Community, Whole Child model visit, http://www.astdd.org/improving-childrens-oral-health-through-the-whole-school-whole-community-whole-child-(wscc)-model/.





Framing the Issue of Dental Disease

Oral health plays a key role in determining an individual's quality of life. Poor oral health can influence an individual's self-esteem, school performance, ability to obtain employment, and school and work attendance. It has been shown that most employers "make instant judgements based on appearance, including one's smile and teeth." A 2008 study found that people with missing front teeth were viewed as less intelligent, less desirable and less trustworthy than people with a healthy smile. Tooth decay is one of the most common chronic conditions throughout the United States, and oral disease has been linked with other chronic diseases such as diabetes and heart disease.

Figure 5 - National Dental Disease

Dental Disease, better known as tooth decay:

"Is the most common chronic disease of children 6 to 11 years and adolescents aged 12 to 19 years."

"Is 4 times more common than asthma among adolescents 14 to 17 years."

"9 out of 10 over the age of 20 have some degree of tooth decay." "By age 34, more than 80% of people have had at least one cavity." "Over \$6 billion of productivity is lost each year because people miss work to get dental care."

Source: "Oral Health". Centers for Disease Control and Prevention, updated June, 29, 2017. https://www.cdc.gov/OralHealth/index.html, accessed March 2017.

¹⁶ Children's Dental Health Project. <u>https://www.cdhp.org/</u>. accessed March 2017

¹⁷ "Oral Health Basics". Centers for Disease Control and Prevention, updated October, 8, 2015. https://www.cdc.gov/oralhealth/basics/index.html. accessed March 2017.



Transmission of Dental Caries Bacteria

By definition, dental caries is an infectious and transmissible disease because it is caused by bacteria colonizing the tooth surfaces.¹⁸ According to a 1996 bulletin for the CDC, dental caries may be the most prevalent of infectious diseases that affect humans. Research shows that one of the major forms of decay-causing bacteria can be easily spread from a mother or caregiver to a small child. Dental health experts have concluded that several acts performed by well-meaning parents can transmit decay-causing bacteria to young children.¹⁹ The most common of these acts include sharing an eating utensil, sharing drinking cups, and licking a baby's pacifier to clean it.

Infections, Dry Mouth, Prescriptions, and Over the Counter Medications

Dental-related acute head and neck infections pose a challenge to healthcare providers around the world. These infections carry a significant risk of morbidity and mortality due to the proximity to the upper airway. If these infections are not managed properly complications may occur from which the patient may not recover.²⁰

Over 24 million Americans have asthma, a chronic lung disease that usually develops in childhood. This condition can put you at risk for various dental problems among which are dry mouth, cavities, and oral sores.²¹ Many of the medications, over the counter and prescription, such as antihistamines and decongestants, may be blocking the release of saliva, resulting in xerostomia (dry mouth). Chronic dry mouth may increase the chance of dental disease, including tooth decay. Preventive measures should be put in place to offset the lack of saliva flow in the mouth. In addition to this side effect, medications in the form of syrups may be highly acidic, which can damage to the tooth structure.

¹⁸ Caufield PW, LiY, Dasanayake A, "Dental caries: an infectious and transmissible disease", Compendium Continuing Education in Dentistry. 2005 May: 26(5 Supple 1): 10-6.

¹⁹ "Is Tooth Decay Contagious?'. Campaign for Dental Health. American Academy of Pediatrics. February 18, 2014. http://ilikemyteeth.org/tooth-decay-contagious/. access April 25, 2017

²⁰ Amponsah EK, Donkor P. Life-Threatening Oro-Facial Infections. Ghana Medical Journal 2007 Mar; 41(1): 33-36. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1890536/ Accessed July 19, 2017.

²¹ "Asthma & Your Oral Health". Delta Dental. Revised April, 2016. https://www.deltadentalins.com/oral_health/asthma-and-oral-health-8x11.pdf. accessed April 2017.



Diet and Nutrition and Oral Health

A balanced, nutritious diet is essential to healthy living, including preventing tooth decay and gum disease.²² Establishing healthy eating habits and oral health habits plays a significant role in the prevention of dental decay.²³ Without the proper management of sugary drinks, snacking and oral care, tooth decay is certain to occur at some point.

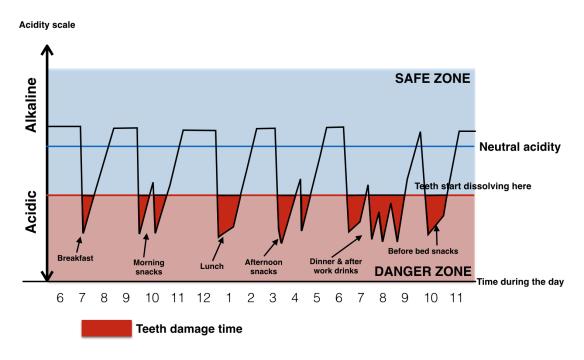


Figure 6 - Diet and Oral Health

Source: Supa Dental, "A Less Healthy Stephan Curve", http://www.supadental.com.au/wp-content/uploads/2017/02/A-Less-Healthy-Stephan-Curve.png, accessed July 2017.

The pH of a healthy mouth is 7.1. While the body has ways of regulating this pH, certain foods and beverages increase the acidity of the mouth by dropping the pH level to a more destructive level of 4.5. Sugary drinks such as sodas, energy drinks and other sugar-sweetened beverages, along with sugar-sweetened foods and carbohydrates, place the teeth in a vulnerable position

²² "Mouth Happy". American Dental Association. http://www.mouthhealthy.org/en/nutrition; accessed April 2017

²³ "Mouth Happy". American Dental Association. http://www.mouthhealthy.org/en/nutrition. accessed April 2017



where the formation of decay is more likely to occur. The formation of decay is the result of the process known as demineralization (red area, figure 4). The counter process to demineralization is remineralization (blue area, figure 4), the process where the tooth surface is given the opportunity to re-strengthen or re-mineralize.

These two processes have a crucial impact on the hardness and strength of tooth enamel, which is the hardest structure in the body. The battle to keep teeth strong and healthy is dependent upon the balance between demineralization and remineralization; the presence of saliva influences this process. Understanding this relationship and the process of demineralization and remineralization will aid in fighting the battle of dental decay.

It is essential to focus on a healthy diet that limits snacking and intake of sugary beverages to maintain a healthy mouth. This healthy diet will also play a crucial role in preventing chronic conditions like obesity and diabetes. Parents and caregivers have a unique opportunity to model this behavior for children to ensure they get a healthy start to life. Another important step that can be taken to improve the health of children is introducing water during a child's early years and continuing to make water the beverage of choice between meals for children and adults alike. This focus on a healthy diet provides a strong foundation for a future with improved overall health for children and adults alike.

Oral Health and Chronic Disease

The 2003 World Oral Health Report acknowledged that the evidence is clear, oral health and general health are closely related.²⁴ Since that report, we have realized oral health and general health are linked in four major ways:

- 1. Poor oral health is significantly associated with major chronic diseases;
- Poor oral health causes disability;
- 3. Oral health issues and major diseases share common risk factors;
- 4. General health problems may cause or worsen oral health conditions.²⁵

²⁴ The World Oral Health Report 2003. Continuous improvement of oral health in the 21st century- the approach of the WHO Global Oral Health Programme.

²⁵ "Links Between Oral Health and General Health the Case For Action". Dental Health Services Victoria. November 7, 2011. https://www.dhsv.org.au/_data/assets/pdf_file/0013/2515/links-between-oral-health-and-general-health-the-case-for-action.pdf. accessed March 2017.



The facts are... body "talks Gum disease increases the risk of head & neck Tooth loss & gum disease cancer. increase the risk of Alzheimer's disease. a germ that spreads --Mayo Clinic while kissing & sharing food. Gum disease -- American Academy for Oral Sy pancreatic & kidney cancer risk Bacteria in your mouth by 62%. travel to other parts of your body in your bloodstream. 93% of people with --American Academy for Oral Systemic Health gum disease are at risk for diabetes. Diabetes & bleeding gums increases your risk of premature death by 400 - 700 percent. -- American Academy for Oral Systemic Health Research has found an association between gum disease and rheumatoid Pregnant women with gum arthritis. disease have only a 1 in 7 chance of giving birth to a American Academy of Family Physicians healthy child of normal size. -AAOSH The Surgeon General reports that at least 80% of American adults have gum People with gum disease are twice as likely to die from **heart disease** & three times as likely to die Bacteria that live in your mouth can cause from stroke.. heart disease, high blood pressure & stroke.

Figure 7 - Oral Health and Overall Wellness

Source: American Academy of Oral Systemic Health, https://www.heritagedentalva.com/files/2014/03/infographic-oralsystemichealth.jpg, accessed July 2017.



Many studies show an association between poor oral health and chronic diseases such as cardiovascular disease, diabetes, respiratory diseases, stroke, kidney disease, dementia, and obesity. Because oral diseases and chronic diseases have many determinants in common, inter-professional efforts to address the mouth-body connection should be strengthened.²⁶

Substance Abuse

In 2009, for the first time in U.S. history, drug overdose deaths outnumbered deaths resulting from motor vehicle crashes. Since 2009, this number has continued to increase.²⁷ In 2015, six out of ten drug overdose deaths involved an opioid, and 91 Americans die every day from an opioid overdose.²⁸ In Tennessee in 2015, the highest annual number of overdose deaths in state history was recorded. 1,451 people died from drug overdoses, and 72 percent of these drug overdose deaths involved opioids.²⁹

Prescription drug abuse is an epidemic that has impacted and complicated the practice of dentistry. The dental professional has the challenge of providing pain relief for their patients, while minimizing the potential of prescription drug abuse. Striking this balance has changed practice standards for the dental provider, where the treatment of choice must be more effective and safer for the patient.

Primary Prevention and Community Water Fluoridation

What if instead of treating an issue or illness, it could be prevented from occurring in the first place? That is the idea behind primary "upstream" prevention. In moving along the spectrum from tertiary prevention to primary prevention, greater efforts are focused on preventing diseases and health issues from developing. This shift to primary prevention is accomplished by addressing root causes as opposed to focusing solely on treating symptoms of a greater problem.

²⁶ Sheiham A. Oral Health, general quality of life. Bulletin of the World Health Organization. 2005 Sep; 83:9. http://www.scielosp.org/scielo.php?pid=S0042-96862005000900004&script=sci_arttext&tlng=pt. accessed April 2017.

²⁷ U.S. Department of Health & Human Services. Addressing Prescription Drug Abuse in the United States – Current Activities and Future Opportunities. 2013. Available at:

https://www.cdc.gov/drugoverdose/pdf/hhs_prescription_drug_abuse_report_09.2013.pdf.

²⁸ Centers for Disease Control and Prevention. Understanding the Epidemic: Drug overdose deaths in the United States continue to increase in 2015. 2016. Available at: https://www.cdc.gov/drugoverdose/epidemic/index.html

²⁹ Tennessee Department of Health. 1,451 Tennesseans Die From Drug Overdoses in 2015. 2016. Available at: www.tn.gov/health/news





In addition to improving health, prevention is also a cost-saving mechanism. By focusing efforts on lower-cost preventive measures, the health enterprise can decrease the amount it spends on treating chronic disease.

"We can't wait until we fix our massively expensive and broken

health care system to prevent preventable disease. We must focus as a culture on primary 'upstream' prevention." -Tennessee Commissioner of Health, Dr. John Dreyzehner

Community water fluoridation is the adjustment of the natural fluoride concentration of water to the level recommended for optimal dental health. Fluoride is naturally present in all foods and beverages, in varying concentrations. Fluoride at the recommended optimal level is incorporated into the surface of teeth making them more decay-resistant.

Historically, Tennessee has voluntarily led the way in community water fluoridation. In 2004, 95 percent of Tennesseans served by community water systems received optimally fluoridated water, and Tennessee was ranked seventh in the nation for water fluoridation. Due to misinformation and inaccurate facts, many of the local systems have chosen to discontinue water fluoridation. Tennessee now ranks 17th in the nation with 88 percent of those on community water systems receiving optimally fluoridated water.

"Historic rates of fluoridation have long been a bright spot for Tennessee's most vulnerable children. We can't let them down." Tennessee

Commissioner of Health, Dr. John Dreyzehner

Community water fluoridation, which is primary prevention, is the most effective and economical way to prevent tooth decay for all ages. The cost of one cavity is expensive, but the cost of two or more cavities rises well above the cost of preventive care. Over 70 years of scientific evidence has consistently shown that community water fluoridation is both safe and effective. Studies prove water fluoridation reduces dental decay by 20 to 40 percent in both



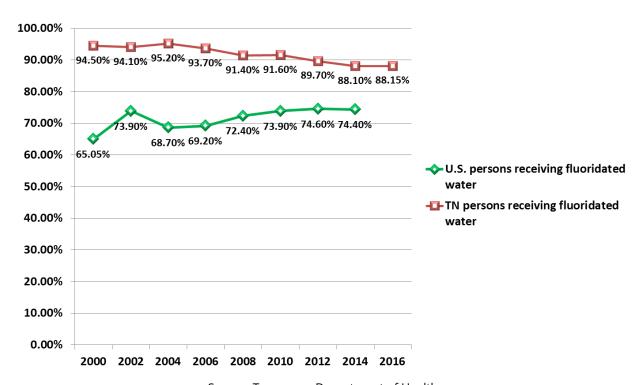
children and adults, even at a time with widespread availability of fluoridated toothpastes and mouth rinses.³⁰

"Because we know that so much of our health is determined by zip code rather than genetic code. That's why creating a culture of disease prevention through community efforts – and ensuring health equity for all – is one of my highest priorities." - Former United States Surgeon General Vivek Murthy

Figure 8 – Fluoridated Water Systems

U.S. vs Tennessee Persons Receiving Fluoridated Water and

Served by Community Water Systems from 2000 – 2016



Source: Tennessee Department of Health

Oral Health Literacy and Comprehension

Oral Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make proper decisions concerning

³⁰ American Dental Association. <u>http://www.ada.org/en</u>. accessed March 2017.

³¹ V Murthy MD, MBA. Statement on Community Water Fluoridation. Department of Health and Human Services Office of the Surgeon General. accessed March 2017.



their oral health.³² Due to the complexity of the healthcare system, limited oral health literacy is associated with poor oral health.³³ The 2004 Institute of Medicine report, *Health Literacy: A Prescription to End Confusion*, estimated that 90 million American adults - nearly half of all adults - have difficulty in understanding and acting on health information.³⁴

Development of the State Oral Health Plan

In 2016, Public Chapter 0968, authorizing the TDH to develop a "comprehensive state oral health plan", was passed by the Tennessee General Assembly and approved and adopted by Governor Bill Haslam.³⁵

The state oral health plan was developed through an extensive public process that engaged leaders from sister state agencies, industry experts, and the public. This process included the formation of an advisory committee, six public meetings held across the state and a period of public review of the draft state oral health plan.

The development process began with internal research, meetings, and planning. Program areas within TDH that are linked to oral health were engaged to develop a comprehensive understanding of all efforts underway by TDH throughout the state to improve oral health. This process provided an opportunity to build collaboration across program areas, increase alignment, and expand internal knowledge.

³⁵ Tennessee Code Annotated § 68-1-3, see Appendix A.

³² U.S. Department of Health and Human Services. 2000. *Healthy People 2010*. Washington, DC: U.S. Government Printing Office. Originally developed for Ratzan SC, Parker RM. 2000. Introduction. In *National Library of Medicine Current Bibliographies in Medicine: Health Literacy*. Selden CR, Zorn M, Ratzan SC, Parker RM, Editors. NLM Pub. No. CBM 2000-1. Bethesda, MD: National Institutes of Health, U.S. Department of Health and Human Services.

³³ U.S. Department of Health and Human Serivces, Office of Disease Pevention and Health Promotion, "Quick Guide to Health Literacy", https://health.gov/communication/literacy/quickguide/factsliteracy.htm; Accessed 4/26/2017

³⁴ Nielsen-Bohlman L, Panzer AM, Kindig DA. Editors. Health Literacy A Prescription to End Confusion. Committee on Health Literacy, Institute of Medicine, National Academies Press Washington, DC. 2004.



Figure 9 - State Oral Health Plan Timeline



Following this internal process, Oral Health Services in partnership with Health Planning, formed an advisory committee comprised of industry stakeholders who could provide expertise and guidance for the development of the plan and provide future partnerships for implementation of the plan. ³⁶ The stakeholders were engaged again near the end of the process to review and provide feedback on a draft version of the oral health plan.

Additionally, TDH engaged leaders from sister state agencies in order to gain an understanding of the oral health needs of the communities they serve, understand any programs or services provided by the state outside of TDH, and to build collaboration and partnerships across state agencies.

In January and February 2017, TDH hosted six public meetings across the state. Attendees included a mix of oral health practitioners, representatives from regional, local, and metro health departments, dental schools, and charitable care clinics, other various public and private stakeholders, and the general public. The primary goals of these meetings were to present a proposed outline of the plan, solicit feedback from those with vested interests in public and

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 $^{^{\}rm 36}$ For more information on Advisory Committee Membership, see Appendix B.



oral health, and build relationships with parties throughout the state that play a role in shaping the health of Tennesseans.

Table 2 - Public Meeting Schedule

Location	Date
Nashville	January 23, 2107
Chattanooga	January 26, 2017
Jackson	February 2, 2017
Memphis	February 3, 2017
Knoxville	February 9, 2017
Blountville	February 10, 2017

All parties engaged throughout the process, those from the advisory committee, state agency meeting, and attendees of the public meetings, were also provided with any opportunity to review and provide feedback on the final draft version of the plan. These comments were carefully considered and revisions were made based upon these recommendations prior to the final version being published.

State Oral Health Plan Recommendations

A series of recommendations were developed. These recommendations are informed by the work of the Centers for Disease Control and Prevention, Health People 2020, the American Dental Association, the National Health Performance Standards, and The 10 Essential Public Health Services. The recommendations are designed to address the unique needs of the state of Tennessee and align with the frame work of the State Health Plan to ensure all TDH efforts work in coordination to improve efficiency and efficacy.³⁷

 $^{^{}m 37}$ For more information on the State Health Plan framework, see Appendix C.



Monitoring Dental Disease in Tennessee



Monitoring dental disease in Tennessee through evidencebased sources will create an opportunity to better understand and more effectively improve the oral health of Tennesseans:

To provide Tennesseans better access to current evidencebased oral health data:

• **Recommendation 1:** Develop a Tennessee oral health data source grid specific for the state

To allow for a simplified reporting tool for providers and

patients:

• **Recommendation 2:** Caries Risk Assessment on all patients

To identify an oral health surveillance system model for Tennessee:

• **Recommendation 3:** Research and review best practices for an oral health surveillance system

To monitor and report oral cancer and craniofacial data for Tennessee:

• **Recommendation 4:** Develop TDH surveillance system to monitor the Tennessee Cancer Registry and craniofacial health in Tennessee

Oral Health Education and Advocacy



Increased education and advocacy is essential for improving the oral health status of Tennesseans of all ages.

To assist in Tennessee's efforts to lower the incidence of substance abuse:

• **Recommendation 1:** Raise dental provider awareness of their role in substance abuse prevention

To assist in Tennessee's efforts to lower the incidence of tobacco use:



• **Recommendation 2:** Work with existing tobacco prevention programs for public awareness of the effects of tobacco in the oral cavity

To assist in Tennessee's efforts to decrease obesity:

• **Recommendation 3:** Work with community partners to increase public awareness of the impact of diet and sugary drinks on oral health

To raise public and provider knowledge of the link between poor oral health and other chronic diseases:

• **Recommendation 4:** Work with chronic disease prevention programs to develop messaging and an educational course for healthcare providers

To promote inter-professional (dental – medical) referrals

• **Recommendation 5:** Highlight integrated care models, specifically the Meharry Interprofessional Collaboration Model

The mouth is not separate from the body; the entire patient must be treated. Fostering collaboration among dentists, physicians, and other health professionals is essential for treating the whole patient. Referrals among the professions provide the patient with the best overall healthcare experience. Through communication and education of all healthcare professionals this can be made possible.

The Meharry Medical College School of Dentistry Inter-professional Collaboration Model-Dean Cherae Farmer-Dixon.

The Meharry Medical College School of Dentistry in conjunction with the Metro Nashville General Hospital seek to enhance the overall healthcare service delivery model by incorporating oral health as a component of routine health maintenance. By restructuring the medical history form to include questions regarding dental health and history, we collect the best information on the patient's overall health. Questions such as date of last dental visit, date of last cleaning, tooth sensitivity, etc. will be added. The vision is that a routine oral screening will be a standard component of the routine medical triage.

The hospital is also working with the School's General Practice Residency program to improve the emergency services through the establishment of an emergency dental clinic within the emergency room area where dental urgent care can be provided. These efforts and initiatives will assist in promoting optimal health care and comprehensive care for all.

For more information, visit https://www.mmc.edu/education/sod/.







Prevention is one of the easiest and most cost effective ways to keep Tennesseans healthy. By preventing tooth decay, the lifelong burden of dental disease and costly treatment can be avoided.

To assist Tennessee in its efforts in prevention of oral disease:

• **Recommendation 1:** Organize state-wide information and support meeting with

community stakeholders to raise awareness of the benefits of community water fluoridation

In support of evidence-based clinical recommendations for the use of pit-and-fissure sealants:

• **Recommendation 2:** Encourage greater use of sealants by dental providers in order to prevent pit and fissure caries in permanent molar teeth of children

To assist efforts to treat and prevent tooth decay statewide:

Recommendation 3: Advocate for the usage of Silver Diamine Fluoride and provide education on its effectiveness as a preventive measure, specifically utilizing the University of Tennessee Health Science Silver Diamine Fluoride



Silver Diamine Fluoride (SDF) is a colorless liquid used to control and manage tooth decay. SDF has been shown to control tooth decay on the treated tooth and lower the risk of decay on the adjacent tooth surfaces as well. SDF has found to be a transitional approach for managing tooth decay in individuals who are unable to tolerate more involved dental treatment. The downside to SDF is its characteristic black staining of the tooth surface to which it is applied. The use of Silver Diamine Fluoride at the Department of Pediatric Dentistry at the University of Tennessee Health Science Center College of Dentistry-Larry Dormois, DDS, MS, Associate Professor and Chair.

The silver diamine fluoride was first introduced to the graduate pediatric dental program; its use has grown from occasional to routine application at the initial visit of young patients with Early Childhood Caries. Open carious lesions receive SDF treatment the day of the initial exam, thus delaying/stopping the progression of the disease. The goal is to control the carious process while implementing the permanent restorative phase. A side benefit is the clarification it gives of the pulpal status. Deep carious lesions treated with SDF that remain asymptomatic are assumed to have reversible pulpitis thus indirect pulp therapy is appropriate. In pre-cooperative patients whose dental treatment must be delayed, SDF allows postponing treatment until co-operation can be gained.

SDF's usefulness in the graduate program was expanded to the pre-doctoral dental program. SDF was introduced to the second year dental students during Introduction to Pediatric Dentistry Lecture Course in 2016. SDF's is then taught by simulation in the same students in the Laboratory Course. Upon entering clinic in their third year, the student includes SDF in their treatment planning.

While SDF is not a replacement for skilled restorative dentistry in the pediatric dental patient, it is an invaluable tool for its diagnostic, treatment planning, and therapeutic value in the pediatric patients with Early Childhood Caries.

For more information, visit https://www.uthsc.edu/dentistry/.



To support efforts to decrease dental disease in our elderly population:

• **Recommendation 4:** Expand efforts to adopt the Tooth Wisdom Get Smart About Your Mouth Workshops for the elderly population

Oral Health America's Wisdom Tooth Project (WTP) - Tooth Wisdom: Get Smart About Your Mouth Workshops are health education classes for older adults delivered in community settings. The program was piloted in 2014 to help meet some of the dental needs of our aging population. Since 2009, the WTP has implemented strategies to combat some of the barriers that aging Americans face with regards to receiving the oral care they need. The workshops are designed for Registered Dental Hygienists who have completed training, who donate their time and services to implement the program in facilities that serve the target population.

For more information, visit https://oralhealthamerica.org/our-work/wisdom-tooth-project/.

In support of efforts to increase medical provider oral health awareness:

 Recommendation 5: Advocate the "lift the lip" and the fluoride varnish campaigns for medical providers³⁸

³⁸ National Maternal & Child Oral Health Resource Centers' *Promoting Oral Health in Young children: A Resource Guide,* promotes the "lift-the-lip" technique for medical providers in their efforts to assess risk of tooth decay and promote oral health.https://www.mchoralhealth.org/PDFs/resguideyoungchildren.pdf.



Oral Health Resources and Workforce



Tennessee has oral health resource opportunities located throughout the state. For better public awareness, housing this information in a central location will provide for improved public access and awareness.

To give Tennesseans awareness and access to existing dental resources across the state:

• **Recommendation 1:** Map existing

providers/activity/services of oral health efforts for public and provider use

To increase dental access for Tennessee's uninsured adult population:

• **Recommendation 2:** Actively seek funding for TDH dental clinics in order to expand the targeted population to include uninsured adults and partner with Safety Net Clinics to expand their oral health reach

To accurately monitor the dental workforce in Tennessee:

• **Recommendation 3:** Request TDH, Health Related Boards collect practicing status for dentists and hygienists during licensure and license renewal

To advocate for infection control practices in dental offices across the state:

• **Recommendation 4:** Raise awareness of the Centers for Disease Control and Prevention Summary of Infection Prevention Practices in Dental Setting³⁹

To advocate for evidence-based dentistry across the state:

 Recommendation 5: Raise awareness of the American Dental Association (ADA) Center for Evidence-Based Dentistry Guidelines⁴⁰

http://ebd.ada.org/~/media/EBD/Files/ADA Clinical Practice Guidelines Handbook-2013.pdf?la=en

³⁹ To access this document, visit https://www.cdc.gov/oralhealth/infectioncontrol/pdf/safe-care.pdf

⁴⁰ For more information, visit



Appendices & Exhibits

Appendix A: Public Chapter 0968

Search - 1 Result - 68-1-305. Comprehensive state oral health plan.

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Tenn. Code Ann. § 68-1-305

TENNESSEE CODE ANNOTATED
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*** Current through the 2016 Session ***

Title 68 Health, Safety and Environmental Protection Health Chapter 1 Department of Health Part 3 Dental Hygiene

Tenn. Code Ann. § 68-1-305 (2016)

68-1-305. Comprehensive state oral health plan.

- (a) The commissioner of health is authorized to develop a comprehensive state oral health plan. The plan may be used to direct skilled personnel and funding decisions in order to reduce the prevalence of oral disease. The plan may enable the state to compete more effectively for funding resources and opportunities.
- (b) The commissioner may develop the plan in consultation with public and private agencies, partners, and stakeholders, including the state oral health coalition and members of the public health, dental, and medical communities.
- (c) The plan may:
 - (1) Include state-specific data;
 - (2) Be maintained in a current and relevant form with updates every five (5) years;
 - (3) Be distributed broadly to public partners and policymakers; and
- (4) Provide specific, measurable, achievable, relevant, and time-framed (S.M.A.R.T.) objectives.
- (d) The plan may also include:
 - (1) A logic model;
 - (2) A strong infrastructure;
 - (3) Accessibility to current resources;
 - (4) Identified knowledge gaps in resources and recommendations for eliminating those gaps;
 - (5) Healthy People 2020 oral health objectives;
 - (6) Identified priority populations and the burdens of oral disease;
 - (7) Identified partners with the ability to leverage resources;
- (8) A communication plan for addressing new or emerging oral health knowledge specifically for:

https://web.lexisnexis.com/research/retrieve?_m=4e8dad450e2f31eabe85b4f67c92a823&... 10/31/2016



Search - 1 Result - 68-1-305. Comprehensive state oral health plan.

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- (A) Dental caries;
- (B) Water fluoridation; and
- (C) School-based or school-linked dental sealant programs;
- (9) Programs to address oral cancer and periodontal diseases;
- (10) Efforts to address infection control in dental settings;
- (11) Evaluation activities at the initiation of the planning process that involve recommendations for types of evaluation and plans for monitoring outcomes related to plan implementation;
 - (12) Identified best practices for replication of program implementation; and
 - (13) A proposal that identifies the process for updating the plan as required by this section.

HISTORY: Acts 2016, ch. 968, § 1.



https://web.lexisnexis.com/research/retrieve?_m=4e8dad450e2f31eabe85b4f67c92a823&... 10/31/2016



Appendix B: Advisory Committee Members

Name	Organization
Dr. James A. Gillcrist	TennCare
Mike Dvorak	Tennessee Dental Association
Dr. Rick Guthries	Tennessee Dental Association
Jack Fosbinder	Tennessee Dental Association
Kathy Wood-Dobbins	Tennessee Primary Care Association
Libby Thurman	Tennessee Primary Care Association
Shatiqua Jamerson	Tennessee Primary Care Association
Sandy Hays	Rural Health Association of Tennessee
Randall Kirby	Rural Health Association of Tennessee
Jesse Samples	Tennessee Health Care Association
Dr. Michelle Pardue	Metro Nashville Health Department
Dr. Larry Dormois	University of Tennessee
Dr. Farmer-Dixon	Meharry Medical College
Carmen Pinkston, RDH	Tennessee Dental Hygienist
	Association
Mike Bivens	Tennessee Dental Hygienist
	Association
Dr. Rhonda Switzer-Nadasdi	Interfaith Dental Clinic, Tennessee
	Charitable Care Network



Appendix C: Tennessee Department of Health

Division of Community Health Services, Oral Health Services:

Veran Fairrow, DDS, MPH Director

Lesa A Byrum, RDH, BS Public Health Administer 1

Division of Health Planning:

Jeff Ockerman, JD Director

Elizabeth Jones, MA Assistant Director



Appendix D: State Health Plan Framework

The State Health Plan is based on three guiding questions that outline the overall themes and key factors to consider when thinking about health in Tennessee. By answering these questions, an individual, group, or organization may determine if they are aligned with the overall direction of the state and its approach to improving population health. These questions are intended to be broad enough to be applicable to all stakeholders while providing specific direction at all levels of health and health care. They can be used easily by anyone from community volunteers to health policy experts.

Are we creating and improving opportunities for optimal health for all?

Are we moving upstream?

Are we learning from or teaching others?



Appendix E: The Big Four





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Division of Community Health Services | Oral Health Services Office of Health Planning