Oral Health Day 2022 Equity In Action

A report for the North Carolina Oral Health Collaborative by Ruma Simhan, DDS, MPH



Purpose of the Report

This report is intended to introduce Oral Health Day 2022: Equity in Action, summarize its events, identify priorities that need to be addressed and associated strategies, provide clarity through explanations on priorities/strategies as needed, delineate subsequent steps and issue a call-to-action.

Introduction

The North Carolina Oral Health Collaborative's (NCOHC) mission is to improve the overall health and well-being of all North Carolinians by increasing access and equity in oral health care through collaborative partnership, advocacy, and education. NCOHC framed its annual Oral Health Day around equity, an important factor that must be considered to improve oral health care. According to the President of the United States' Executive Order on Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce, the definition of equity is, "the consistent and systemic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment." (Executive Order on Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce, 2021).

This two-day virtual event focused on the voices of patients, providers, policymakers, grantmakers, and others to tell a comprehensive story about inequity in oral health care. With interactive, collaborative workshops on day two of the event, Oral Health Day 2022: Equity in Action culminated in the identification of opportunities for impact that NCOHC will further develop into an Oral Health Equity Action Plan that will guide future advocacy in North Carolina.

Oral Health Day 2022: Equity in Action had three objectives:

- 1. Raise awareness of systemic inequities in oral health care access and outcomes in North Carolina and across the United States.
- 2. Identify opportunities to reduce or eliminate inequity in oral health care access and outcomes in North Carolina.
- 3. Inspire stakeholders to action aimed at advancing equity and reclaiming power for underserved and marginalized populations in North Carolina.

The first day of the equity summit included a keynote address by Dr. Eleanor Fleming, assistant dean of equity, diversity, and inclusion at the University of Maryland School of Dentistry. The event also included a presentation on how inequity is present in oral



health, a panel discussion, a panel question and answer session, and the NCOHC Oral Health Equity Award presentation.

The panel discussed inequities in the current oral health care system and opportunities for change. This panel humanized the quantitative outcomes data presented earlier in the summit and helped event participants identify opportunities for collective action. Enabling a well-balanced discussion, the panel included voices from various sectors in the oral health care system representing a wide range of lived experiences, including (Appendix A – Bios of Moderator and Panelists):

- Underserved or unserved consumers of oral health care (2) Parent Advisory Committee Members, NC Child (Marie Helms and Rachel Radford)
- An oral health care provider (academic institution in oral health care, provider in oral health care) – General Practice Residency Program Director of Mountain Area Health Education Center (Amadeo Valdez, DDS, MAS)
- A payer of oral health care President and CEO of Delta Dental of North Carolina (Curt Ladig, BBA)
- A policy and decision-maker in oral health care Director of Hispanic/Latinx Policy and Strategy in the North Carolina Department of Health and Human Services (Yazmin García Rico, MSW)
- A grantmaker actively supporting oral health systems reform President and CEO of the Dogwood Health Trust (Susan Mims, MD, MPH, FAAP)

The moderator of the panel was Dr. Lewis Lampiris, an adjunct associate professor at the UNC Adams School of Dentistry. The second day of the equity summit included breakout sessions that identified strategies for pursuing equity in oral health and oral health care.

Stakeholders

Oral Health Day 2022: Equity in Action targeted a diverse array of oral health stakeholders in North Carolina and across the country. The following stakeholders were represented in the event:

- Community (patients and non-patients)
- Providers (health professions)
- Payers (public and private)
- Oral health coalitions



- State agencies (DHHS-DHB, DPH: Oral Health Section, Chronic Disease and Injury Prevention, Minority Health & Health Disparities, etc.)
- Future oral health change agents (public health, dental, medical (PA, NP, MD, DO), social work, law students)
- Non-governmental agencies (NGOs)
- Community-based organizations (CBOs)
- Grantmakers

Identified Priorities and Strategies

On day two of Oral Health Day 2022: Equity in Action, high-level strategies were identified for pursuing equity in oral health and oral health care through three key domains: workforce, access to care, and payment reform. These strategies were identified through five hour-long breakout sessions facilitated by NCOHC staff and an intern. The purpose of the breakout sessions was:

To brainstorm and identify actionable solutions to North Carolina's systemic inequities in oral health and oral health care (Appendix B – Access/Outcome Disparities).

To identify one to two key priorities/strategies for each "domain" and distill them into an Equity Action Framework to guide NCOHC and its coalition's work moving forward.

Most of the priorities and strategies were identified in the breakout sessions and are provided below. In order to create a holistic picture of the situation, if a priority or strategy was not provided, it was assessed after the equity summit.

Workforce

Priority: To expand the scope of practice for dental hygienists

Strategies:

- Promote general supervision for all dental hygienists in North Carolina
- Allow dental hygienists to prescribe periodontal therapeutics prescriptions (e.g., Peridex)
- Allow dental hygienists to place interim therapeutic restorations (ITRs)



Priority: To expand the scope of practice for dental assistants

Strategy: Allow dental assistants to perform expanded functions

Priority: Educate and prepare quality dental assistants for the workforce

Strategy: Evaluate and improve the standards of proprietary dental assisting schools

Priority: Incorporate programs in the dental school curriculum that require dental students or new graduates to practice in a rural or public health setting

Strategy: A residency or program requirement in public health that dental graduates must complete for licensure

E.g., New York model

Priority: Incentivize dental professionals to work in the public sector

Strategy: Advocate for loan repayment programs or other programs if professionals work in the public sector

Priority: Educate and prepare dental team members who assist patients navigating the dental treatment process

Strategy: Utilize care navigators and care managers (e.g., community dental health coordinators) as part of the dental team

Priority: Prepare dentists to treat patients with disabilities

Strategy: Include the appropriate education in the dental school curriculum

Priority: Collect workforce data through the North Carolina State Board of Dental Examiners (NCSBDE) licensure renewal process

Strategy: Partner with the North Carolina State Board of Dental Examiners (NCSBDE) to modify the licensure renewal survey for the purpose of collecting more diversified workforce data



Priority: Improve diversity of dental assisting students, dental hygiene students, and dental students in training programs and colleges (e.g., racial/ethnic minorities, low socioeconomic status, first-generation college students)

Strategy: Create educational scholarships to improve diversity of dental assisting students, dental hygiene students, and dental students

Priority: Recruit diverse faculty

Strategies:

- Target communications about the dental profession to Historically Black Colleges and Universities
- Recruit students to engage in internship opportunities

Priority: Advocate for dental therapists

Strategy: Address the need for dental therapists with partners and the North Carolina General Assembly by highlighting areas with low access to dental care

Priority: Make salaries in public health dentistry more competitive with the private practice sector

Strategy: Pursue additional funding from the government and higher reimbursement with Medicaid via advocacy efforts with the North Carolina General Assembly

Priority: Educate dentists on the need for a team-based approach to care [Expanded Function Dental Assistants (EFDAs) and expanded scope of practice for Registered Dental Hygienists] and increase utilization of minimally invasive care (MIC) procedures for patients.

Strategy: Engage and partner with dental schools to implement this model in the curriculum and educate dentists on these concepts



Priority: Establish a pipeline of public health dental professionals (middle school and high school students)

Strategies:

- Encourage dental professionals to participate in career days at local schools
- Create an educational program focused on different roles in a dental office, including front desk and insurance coordinator positions, that can be used in elementary, middle, and high schools for career fairs
- Get involved with students at Historically Black Colleges and Universities (HBCUs)

Priority: Collaborate with non-traditional partners to expand the dental workforce

Strategy: Interact with organizations/entities such as the Chamber of Commerce to create solutions for the workforce shortage

Priority: Promote engagement and involvement in NCSBDE elections

Strategy: Motivate dental professionals in the public sector to pursue NCSBDE elected office and/or become more involved in NCSBDE elections

Access to Care

Priority: Expand the scope of practice for dental hygiene

Strategy: Advocate for general supervision laws with the North Carolina General Assembly

Priority: Collect data from the state government and safety net providers that provide oral health care to marginalized and underserved populations

Strategy: Advocate for state appropriations to fund public health programs provided by the Oral Health Section and safety net providers to deliver oral health care services



Priority: Increase the use of teledentistry and minimally invasive care procedures

Strategies:

- Incorporate teledentistry and minimally invasive care procedures in the curriculum of dental hygiene schools and dental schools
- Promote and advocate for the coverage of teledentistry and minimally invasive care procedures with various insurances, especially Medicaid

Priority: Utilize mobile dental services in more settings

Strategy: Advocate for better funding of mobile dental services with the North Carolina General Assembly

Priority: Build opportunities to connect with and teach parents how to apply fluoride varnish to their children's teeth through synchronous teledentistry modalities.

Strategy: Create training sessions to teach parents how to apply fluoride varnish to their children's teeth. Cultivate partnerships with the Oral Health Section to support field hygienists to connect with and train parents in their regions.

Priority: Collaborate with medical professionals and focus on whole-person health

Strategy: Partner with the North Carolina Medical Society (NCMS) to create messaging targeted towards medical professionals that emphasizes the importance of whole-person health.

Payment Reform

Priority: Secure reimbursement for care management or care coordination services

Note: Medicaid in North Carolina reimburses for patient care coordination on the medical side

Strategy: Advocate for reimbursement of care coordination CDT codes by North Carolina Medicaid



Priority: Understand the benefits and challenges of Medicaid participation

Strategy: Survey Medicaid participating and non-participating providers to find out the benefits and challenges of the system

Questions to include in the survey:

- Why are dentists participating?
- Why aren't dentists participating?
- Reimbursement and administrative questions/comments Please comment on reimbursement. What are the administrative burdens/challenges of Medicaid? For those not participating in Medicaid, why aren't you participating?
- Recommendations for survey completion Possibly pay providers to participate in the survey, have them complete it at the NCDS annual session, or add questions about Medicaid to licensure renewal similar to Indiana

Priority: Encourage providers to transition to the Health Information Exchange (HIE)

Strategy: Work with the North Carolina General Assembly to advocate for state funding to encourage this transition

Priority: Advocate for North Carolina Medicaid to pay for sealant reapplication and intraoral pictures

Strategy: Partner with the North Carolina Dental Society (NCDS) to encourage North Carolina Medicaid to pay for these services

Use Massachusetts Medicaid as an example as they cover sealants every 3 years for children ≤16 years old

Priority: Support the transition of oral health care delivery, emphasizing a value-based care approach.

Strategy: Promote value-based care approaches to advancelegislation enabling value-based care transformation in Medicaid and other insurance models. At the federal level (in the U.S. Congress), promote value-based care reimbursement innovation in Medicare and Medicaid.



Priority: Similar to medicine, create diagnostic codes for dentistry

Strategy: Advocate for the creation of diagnostic CDT codes through the American Dental Association Code Maintenance Committee

Next Steps/A Call-to-Action

It is important to address equity when solving problems related to oral health care to ensure populations that have historically lacked access are provided the resources and care they deserve. It is crucial to make sure policies, regulations, and statutes reflect equity-based solutions. These solutions will create systems-level changes to improve oral health care. In the immediate future, a coalition of existing traditional and non-traditional partners should be consulted to address inequities in the oral health care system. More specifically, within this coalition, workforce, access to care, and payment reform domains need to be addressed from educational and legislative standpoints. Also, the social determinants of health should be considered when creating equity-based solutions.

Workforce

In the workforce domain, dental professionals need to be incentivized to work in the public sector. Also, the scope of practice should be expanded for dental hygienists and dental assistants. By incentivizing dental professionals, more will work in the public sector, which will allow for increased access to care. Also, expanding scope of practice for dental auxiliaries will allow more people to receive treatment as there will be more dental professionals available to provide care, and the dental auxiliaries can provide more types of treatment. With fewer unnecessary restrictions on practice, more necessary treatments can be provided, thereby increasing the workforce supply and access to care.

Access to Care

In the access to care domain, the Oral Health Section of the North Carolina Department of Health and Human Services can be used to help provide different kinds of education and preventive services, which will provide greater access and minimize instances of oral conditions/disease. Also, through the legislative process, partners can be leveraged to advocate for coverage of minimally invasive care and teledentistry procedures. Using minimally invasive care procedures can help reduce the incidence



of caries in marginalized populations, and the use of teledentistry can help increase access to care for marginalized and/or rural populations. Finally, it is important to use partners to promote collaboration with organized medicine so that medical professionals will be motivated to focus on whole-person health, including oral health.

Payment Reform

In the payment reform domain, the value-based care model should be studied and considered as an option for Medicaid and other insurance providers. To implement this model, NCOHC should partner with traditional and non-traditional partners to collectively work with North Carolina Medicaid to advocate for a reimbursement model based on prevention, expanded coverage and higher frequency of coverage for necessary dental procedures, and reimbursement of care management or care coordination services (similar to coverage in medicine by Medicaid). NCOHC should also advocate for the creation of diagnostic CDT codes through the American Dental Association Code Maintenance Committee to further promote value-based care in dentistry.

This three-pronged approach focused on workforce, access to care, and payment reform domains will help improve the oral health care system from an equity perspective. These solutions will help strengthen the oral health care system and create a system where the population maintains good oral health and has the appropriate access to care when needed.



Reference

Executive order on diversity, equity, inclusion, and accessibility in the federal workforce. (2021). Retrieved from https://www.whitehouse.gov/briefing-room/presidential-actions/2021/06/25/executive-order-on-diversity-equity-inclusion-and-accessibility-in-the-federal-workforce/



Appendices

Appendix A: Bios of Moderator and Panelists

Lewis Lampiris, DDS, MPH (Moderator) – Adjunct Associate Professor at UNC Adams School of Dentistry

Dr. Lampiris retired from the UNCCH Adams School of Dentistry (ASOD) as associate dean for community engagement and outreach in July of 2020. He is currently an adjunct associate professor in the ASOD Department of Pediatric and Public Health. He served as director of the American Dental Association's Council on Access, Prevention and Interprofessional Relations from August 2006 to September 2012 and chief of the Illinois Department of Public Health Division of Oral Health from 1977 to 2006. He received his Doctor of Dental Surgery from Temple University's Kornberg School of Dental Medicine in 1977 and his Master of Public Health from the University of Illinois at Chicago in 1997. He served as a dental officer in the United States Army Dental Corps at Fort Bragg, North Carolina, from 1997 through 1981 and then entered private practice in Chicago as a general dentist from 1981 to 1994. He served as the president of the Association of State and Territorial Dental Directors from 2004 to 2006. Dr. Lampiris is the recipient of the Association of State and Territorial Dental Directors Distinguished Service Award (2007), the American Dental Association's Presidential Citation (2010), and the American Association of Public Health Dentistry's Distinguished Service Award (2013).

Marie Helms (Panelist) - Parent Advisory Committee Member in NC Child

Marie is the mother of two children, a 13-year-old son, and an 11-year-old daughter. Her daughter Elliana was diagnosed with Spastic Quadriplegic Cerebral Palsy at 6 months old and has endured 13 surgeries, three of which were lifesaving events.

Marie's daughter has an extensive medical team in three states. Navigating Elliana's medical processes, Marie has learned what it takes to advocate for and create change. Having experience with a developing child as well as a child with special needs in the oral health care space, Marie believes oral health is imperative for children, particularly those with special needs.

Often, oral health problems are pushed aside by what are sometimes perceived to be more pressing medical needs. However, left untreated, these problems can create chaos later in a child's life. Marie would like to see more emphasis on and support



for oral health care at early ages and for all children regardless of ability or economic status.

Marie lives in Davie County where she volunteers with the school system as much as possible. She was recently elected to serve on Davie County's Board of Education.

She is currently on the Parent Advisory Council for NC Child, has been a Make a Wish Ambassador for Make a Wish of NWNC, and runs with her daughter with Ainsley's Angels, a group where kids and adults with disabilities are angels who pull runners in specialized strollers during races.

Rachel Radford (Panelist) - Parent Advisory Committee Member of NC Child

Rachel Radford is a parent serving on the Parent Advisory Council for NC Child. She volunteers her time as a child and family advocate for special needs families in Wayne County. She also works locally for a nonprofit supporting Christian ministries.

Rachel has been advocating for Medicaid expansion for many years. She believes oral health can only get better if we expand Medicaid in North Carolina. She is very passionate about oral health care involving children with special needs, more specifically Autism, and ways that we can advance that care. Rachel is a mother of two handsome Autistic sons who drive her passions in advocacy.

Amadeo Valdez, DDS, MAS (Panelist) - General Practice Residency Program Director at Mountain Area Health Education Center (MAHEC)

Dr. J. Amadeo Valdez is the general practice residency program director at Mountain Area Health Education Center. A native of Coahuila, Mexico, he completed his dental degree at the Universidad Autonoma de Nuevo Leon. After receiving his master's degree in Clinical Research at the University of California San Francisco, he completed a general practice residency and oral medicine specialty program at Carolinas Medical Center in Charlotte, North Carolina. Among his clinical focus and research interests are: access to dental care; treatment for oral lesions; salivary gland disorders; facial pain; and dental treatment for medically complex patients, including those undergoing cancer therapy.

Curt Ladig, BBA (Panelist) - President and CEO of Delta Dental of North Carolina

Mr. Ladig was named president and CEO of Delta Dental of North Carolina in January 2011. Under Mr. Ladig's leadership, the company has grown its customer base by 737 percent and is one of the fastest-growing Delta Dental organizations in the United States.



Shortly after Mr. Ladig's arrival in North Carolina, he initiated the "Smiles for Kids" program with the Delta Dental Foundation. The program provides grants in communities across the state to help at-risk children receive direct oral health care services or oral health education. The program has now contributed more than \$600,000 and has helped over 333,000 children and their families across the state.

Mr. Ladig received a Bachelor of Science in business administration and accounting from Indiana University Bloomington. He began his career with Ernst & Young in Louisville, Kentucky, where he served clients in the health care and energy industries. After his service with Ernst & Young, Mr. Ladig worked for Anthem Blue Cross Blue Shield in Kentucky as the executive director of audit services for eight years. Mr. Ladig then joined Delta Dental of Kentucky as the chief financial officer and, later, the added role of chief operating officer.

He currently serves on the boards of Leadership North Carolina (Immediate Past Chair), the Alice Aycock Poe Center for Health Education, the Greensboro Chamber of Commerce, and the NC Chamber. Mr. Ladig also serves on the Board of Advisors for the UNC Adams School of Dentistry.

His personal interests include time with family, Grand Canyon hiking, piano, ballroom dancing, being an instrument-rated pilot, and traveling.

Yazmin García Rico, MSW (Panelist) - Director of Hispanic/Latinx Policy and Strategy at the North Carolina Department of Health and Human Services

Yazmin García Rico is the director of Latinx and Hispanic policy and strategy at the North Carolina Department of Health and Human Services (NCDHHS). Yazmin has worked in the health and nonprofit sectors to advocate for the health and well-being of the Latino community, increase access to higher education for youth, and serve underserved and uninsured populations. In her current role at NCDHHS, Yazmin leads the Department's Latinx/Hispanic strategy and engagement efforts, most recently supporting COVID-19 prevention and response efforts to promote equitable distribution of vaccines.

Yazmin currently serves on Governor Cooper's Andrea Harris Social, Economic, Environmental, and Health Equity Task Force, the North Carolina Institute of Medicine's Future of Public Health Task Force, and the United Way of Alamance County board of directors. Yazmin graduated from Guilford College with a bachelor's degree and received a Master of Social Work from UNC-Chapel Hill.



Susan Mims, MD, MPH, FAAP (Panelist) - President and CEO Dogwood Health Trust

Susan Mims, MD, MPH, FAAP, with over 20 years of experience in clinical and health care leadership in North Carolina, currently serves as the president and CEO of the Dogwood Health Trust, a \$1.8 billion private foundation. She leads a team of public health-oriented philanthropists using creative and innovative investments to change the factors that influence health beyond health care services, focusing on four strategic priority areas grounded in equitable opportunity for all: housing, education, economic opportunity, and health and wellness.

Prior to joining Dogwood Health Trust, Dr. Mims worked with the Mountain Area Health Education Center (MAHEC) as the chair of a new Department of Community and Public Health at University of North Carolina (UNC) Health Sciences. In this position, she led the Asheville campus of the UNC Gillings School of Public Health in collaboration with UNC Asheville, focused on community health outreach programs and rural and minority health professions workforce development.

Through 14 years with Mission Health System, Dr. Mims held several roles working to meet the health care needs of the people and families of Western NC (WNC), including vice president for children's services, chief of pediatrics, and vice chief of staff. Arriving in WNC in 2000, Dr. Mims served as medical director at the Buncombe County Health Department for six years, leading all aspects of public health and the largest community health primary care clinic in the county.

Dr. Mims attended college at the University of Georgia on an athletic scholarship. After college, she volunteered in Guatemala for a year in community development before returning to UNC at Chapel Hill to earn a Master of Public Health and MD degrees. She continued her medical training at UNC Hospitals in pediatrics, internal medicine, and preventive medicine and public health and attained board certification in all three disciplines.

Dr. Mims is active in national, state, and WNC regional community health organizations including the American Academy of Pediatrics, NC Pediatric Society (Past President), Western Carolina Medical Society, the Buncombe County Commission on Early Childhood Education, and the NC Institute of Medicine Task Force on the Future of Public Health. Dr. Mims holds an appointment as adjunct faculty at UNC and serves on the editorial board of the NC Medical Journal. She enjoys teaching, coaching, presenting on public health, and spending time with her family in the mountains of WNC.



Appendix B: Access / Outcome Disparities

Access Disparities

- 72% of North Carolina's dentist workforce growth between 2013-2017 occurred in just 5 counties (Buncombe, Mecklenburg, Orange, Wake, Pitt) UNC Sheps Center
- In 2014, 2.5% of ED visits in North Carolina were related to dental conditions, compared to 1-2% throughout the U.S. The rate of ED visits for dental conditions was disproportionate among those living in non-metropolitan (rural) areas, selfpay and Medicaid patients, and Black people. UNC Sheps Center
- "There are several areas of North Carolina where there are no dentists participating in the Medicaid program within a 15-minute travel time of enrollees. Some of these areas may not have any dentists at all." ADA HPI Report (2020)
- The racial and ethnic diversity of North Carolina dentists falls well short of the diversity of North Carolinians overall. UNC Sheps Center
- 82% of NC dentists are white vs. 64% of North Carolinians overall
- Just 35% of NC dentists accept Medicaid or CHIP. ADA
- 69% of low-income North Carolinians report not visiting the dentist more frequently because of cost vs. 45% of high-income North Carolinians. ADA HPI (2015)
- 18% of low-income North Carolinians report not visiting the dentist more frequently because they are afraid of the dentist vs. 13% of middle-income and 14% of high-income North Carolinians. ADA HPI (2015)
- Racial and ethnic disparities in access. NC Health Equity Report, NC DHHS Pg. 9
 (2018)
 - % North Carolinians who have not visited the dentist in the past year:
 - White = 32%
 - Black = 44.5%
 - American Indian = 43%
 - Hispanic/Latinx = 51.2%
- Children age 6-19 from low-income households are roughly 15% less likely to get sealants and twice as likely to have untreated cavities as children from highincome households. CDC
- 55.7% of adults age 18-64 living outside of a metropolitan statistical area (MSA) visited the dentist in the past year, vs. 65.2% of those living in an MSA. Rural Health Information Hub (2017).



- Approximately 60% of the nation's Dental Health Provider Shortage Areas (dHPSAs) are in rural areas. Rural Health Information Hub (2020).
- Employers in rural areas are less likely to offer dental insurance than employers in urban areas. Rural Health Information Hub (2010).
- There were 24.3 practicing dentists per 100,000 people in rural areas vs. 36.7 practicing dentists per 100,000 people in urban areas in 2008. Rural Health Information Hub

Outcome Disparities

- Low-income North Carolinians report significantly worse oral health status than middle and high-income individuals. ADA Health Policy Institute (2015)
 - 15% of low-income North Carolinians say their mouth and teeth are in "poor condition" vs. 6% of middle-income and 6% of high-income North Carolinians
- 33% of low-income North Carolinians report that the appearance of their mouth and teeth affects their ability to interview for a job, vs. 15% of middle-income and 11% of high-income North Carolinians. ADA HPI (2015)
- 30% of low-income North Carolinians report reduced participation in social activities due to the condition of their mouth and teeth. ADA HPI (2015)
- "I accept I will lose some teeth with age." 74% of low-income North Carolinians vs. 45% of high-income North Carolinians agree. ADA HPI (2015)
- Racial and ethnic disparities in outcomes. NC Health Equity Report, NC DHHS -Pg. 9 (2018)
 - % North Carolina adults who have had any of their permanent teeth removed:
 - White = 45.5%
 - Black = 58.5%
 - American Indian = 52.3%
 - Hispanic/Latinx = 43.6%
 - % North Carolina adults age 65+ who have had all their natural teeth extracted:
 - White = 16.7%
 - Black = 24.6%
 - American Indian = not reported
 - Hispanic/Latinx = not reported



- % NC children who have experienced tooth decay:
 - White = 30%
 - American Indian = 55%
 - Hispanic/Latinx = 52%
- % NC children with untreated tooth decay:
 - White = 13%
 - American Indian = 29%
 - Asian American = 23%
- For children aged 2-5 years, 17% of children from low-income households have untreated cavities in their primary teeth 3 times the percentage among children from higher-income households. By ages 12-19, 23% of children from low-income households have untreated cavities in their permanent teeth twice that of children from higher-income households. CDC
- Adults with less than a high school education are almost 3 times as likely to have untreated cavities as adults with at least some college education. CDC
- Nearly twice as many non-Hispanic Black or Mexican American adults have untreated cavities as non-Hispanic White adults. CDC
- The 5-year survival rate for oral pharyngeal cancers is lower among Black men (41%) than White men (62%). CDC
- Oral pharyngeal cancer rates by race and ethnicity (NC DHHS, 2013-2017):
 - Non-Hispanic White: 13.4%
 - Non-Hispanic African American: 9.6%
 - Non-Hispanic American Indian: 7.1%
 - Non-Hispanic Other Races: 13.2%
 - · Hispanics: 6.6%
- Black patients have increased odds of advanced stage oral pharyngeal cancer at diagnosis than White patients. Lenze, N.R., et. al. (2021)
- Lower-income older adults, those with less than a high school education, or those
 who are current smokers are more than 3 times as likely to have lost all their
 teeth as adults with higher incomes, more than a high school education, or who
 have never smoked. CDC



- People with diabetes are 30% more likely to have periodontal disease. American Journal of Public Health (2019)
 - Roughly 1 in 10 North Carolinians are diagnosed with diabetes. NC Diabetes Advisory Council (2020)
 - Non-Hispanic African Americans are more likely to have been diagnosed with diabetes (15.9%) compared to non-Hispanic Whites (12.2%). NC Diabetes Advisory Council (2020)
 - Geographic disparities residents in the eastern and western parts of North Carolina are more likely to be diagnosed with diabetes. NC Diabetes Advisory Council (2020)

