# TRANSFORMING ORAL HEALTH CARE IN NORTH CAROLINA

NCIOM
North Carolina Institute of Medicine

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North Carolina Institute of Medicine

The North Carolina Institute of Medicine (NCIOM) is a nonpolitical source of analysis and advice on important health issues facing the state. The NCIOM convenes stakeholders and other interested people from across the state to study these complex issues and develop workable solutions to improve health care in North Carolina.

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Any opinion, finding, conclusion, or recommendations expressed in this publication are those of the task force and do not necessarily reflect the views and policies of the task force funders. The North Carolina Institute of Medicine recognizes the broad range of perspectives, priorities, and goals of the individuals and organizations who have contributed to the process and report of the Task Force; while we strive to reach and reflect consensus, participation in the Task Force does not indicate full endorsement of all final recommendations.

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4 ACKNOWLEDGMENTS

5 LIST OF TASK FORCE MEMBERS

7 EXECUTIVE SUMMARY

16 RESPONSIBLE PARTIES AND PARTNERS

18 CHAPTER 1
Toward Comprehensive Wellness: Uniting Oral Health and a Vision for a Patient-Centered Future in North Carolina

35 CHAPTER 2
Payment and Benefit Design: Improving Access and Patient Experience

46 RECOMMENDATION 1
Support a patient-centered dental home model for NC Medicaid beneficiaries.

48 RECOMMENDATION 2
Improve access to care, including care for patients with special health care needs, by retaining providers, supporting innovative care, and enhancing access to specialty services.

49 RECOMMENDATION 3
Promote and incentivize high-quality patient experiences and positive health outcomes.

54 CHAPTER 3
Oral Health's Place in Integrated Health Care Systems

56 RECOMMENDATION 4
Ensure patients experience seamless and integrated physical, oral, behavioral, and social care through coordination and collaboration between oral health and medical practitioners.

60 RECOMMENDATION 5
Support community-based access to oral health care.

64 RECOMMENDATION 6
Strengthen the integration of the NC Medicaid oral health program into broader NC Medicaid initiatives and support interdisciplinary education to promote oral health and provide care across the lifespan.

71 CHAPTER 4
Sustaining a Robust Dental Workforce by Promoting Growth and Retention

74 RECOMMENDATION 7
Increase the number and improve distribution and diversity of members of the dental team in North Carolina with focus on Medicaid-serving and rural practices.

79 RECOMMENDATION 8
Expand scope of practice for dental hygienists and dental assistants to increase clinical impact, effectiveness, and efficiency.

81 RECOMMENDATION 9
Elevate the oral health profession through early exposure and ongoing continuing education.

82 RECOMMENDATION 10
Advance oral health career pathways and concentrations.

85 RECOMMENDATION 11
Expand and improve local and state public health data and human resources to catalyze community problem-solving.

90 CHAPTER 5
Enhancing Consumer Experience and Satisfaction in Oral Health Care

91 RECOMMENDATION 12
Build consumer trust by establishing clear and accessible pathways for understanding and improving consumer experiences within the oral health system.

95 RECOMMENDATION 13
Expand and improve data collection systems to improve access to and quality of oral health care delivery.

99 RECOMMENDATION 14
Integrate the oral health program into NC Medicaid initiatives aimed at increasing access to care by addressing social and environmental drivers of health.

107 CHAPTER 6
Bridging Vision to Action: Executing a Collaborative Implementation Plan for Oral Health Transformation

111 CONCLUSION

113 APPENDIX A
NCIOM Oral Health Transformation Task Force Recommendations and Strategies

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The task force was co-chaired by: Dr. Frank Courts, DDS, PhD, Chair, Council on Preventing and Oral Health, North Carolina Dental Society; Jay Ludlam, Assistant Secretary for NC Medicaid, North Carolina Department of Health and Human Services; and Dr. Katrina Mattison-Chalwe, DDS, Dental Director, Piedmont Health Services, Inc. Their experience and insight were vital to the success of this task force.

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### *NCIOM Oral Health Transformation Task Force*

The NCIOM Oral Health Transformation Task Force envisions a patient-centered future for oral health in North Carolina, in which oral health care is redefined as comprehensive and seamlessly integrated with overall health. In this future, dentistry is a valued contributor to improved health and exists within a landscape where high-quality oral health care transcends siloed care and complicated administrative processes. This vision aims to change oral health by placing patients at the center and emphasizing accessibility, equity, and integration within the broader health care landscape. Oral health plays a critical role in individual and community health outcomes and is intricately connected to physical, mental, and social well-being. By envisioning a future where oral health is incorporated into the larger health care system and aligned with the desired future of health in North Carolina, our state can ensure that patient needs drive investments and care decisions and that all residents receive timely, tailored, and personalized oral health care that complements whole-person health.

**The task force vision is grounded in three overarching goals:**

**Patients easily access affordable oral health care within an integrated health care model.**

**Oral health care providers, including and specifically those serving Medicaid patients, work within a system of high-quality, cost-effective care that is seamlessly integrated, with a wholistic approach that fosters collaboration among health and social care teams.**

**North Carolina's oral health system is a collaborative ecosystem in which North Carolina Medicaid and other state agencies, educational institutions, philanthropic organizations, and diverse thought partners work together to cultivate a wholistic, accountable, and equitable approach to oral health.**

## EXECUTIVE SUMMARY

Oral health is a cornerstone of overall health, mirroring the physiological, social, and psychological factors necessary for a high quality of life.[1] Oral health encompasses the well-being of teeth, gums, mouth, and associated structures, all of which are vital for crucial tasks like eating and speaking.[2] It is shaped not just by genetics and cultural factors but also by behaviors, dietary habits, socioeconomic status, geographical location, and living conditions.[2] Recognized as a primary health marker in initiatives like Healthy People 2030[a], oral health stands as an influential determinant of well-being.

The significance of oral health extends far beyond aesthetics. It underpins fundamental human activities and profoundly influences self-esteem, social interactions, and overall mental well-being. Particularly as individuals age, maintaining optimal oral health becomes increasingly challenging due to biological changes. The imperative for the discussions and recommendations of the North Carolina Institute of Medicine (NCIOM) Oral Health Transformation Task Force presented in this report resides in the need to identify comprehensive approaches to addressing these diverse factors that shape oral health outcomes.

In August 2022, the NCIOM launched the Oral Health Transformation Task Force to develop recommendations to support North Carolinians in accessing high-quality and affordable oral health care.

The task force was supported by funding from The Duke Endowment and the Foundation for Health Leadership and Innovation. The task force focused on four key areas that influence access to oral health care services: payment and benefit design, care integration, provider engagement and support, and patient experience and satisfaction. Between August 2022 and August 2023, the full task force met eight times. Additionally, 60 topic-specific meetings and interviews were conducted. Dr. Frank Courts, DDS, PhD, Chair for the Council on Preventing and Oral Health at the North Carolina Dental Society; Jay Ludlam, Assistant Secretary for NC Medicaid at the North Carolina Department of Health and Human Services; and Dr. Katrina Mattison-Chalwe, DDS, Dental Director at Piedmont Health Services, Inc. served as task force co-chairs. They helped guide more than 60 task force members through insightful conversations that led to the creation of the recommendations in this report. Full text of all recommendations and strategies can be found throughout this report and in Appendix A.

### *Payment and Benefit Design: Improving Access and Patient Experience*

North Carolina has made huge strides in improving the oral health of its population over the past few decades.[3] However, disparities in oral health outcomes and access to oral health care persist, particularly for the state's low-income residents. This is because one of the foremost barriers in access to and utilization of the oral health care system across the country is the inability to afford oral health services. As highlighted in the NC Oral Health Collaborative's 2019 *Portrait of Oral Health in North Carolina*, "the current U.S. health care system is structured such that a person's ability to access care is largely determined by their ability to pay."[3] This is acutely felt by individuals seeking dental care regardless of insurance status, as out-of-pocket spending accounts for a much greater proportion of total dental expenditures than it does for total health expenditures. "Dental care has the highest level of financial barriers compared to any other health care service."[4] In 2019, 42% of total US spending on dental care was out of pocket, compared to 8% of total physician and clinical expenditures.[5] As such, the current structure of the oral health care system and its payment and benefit design make socioeconomic disparities inevitable. This represents a public health problem that negatively impacts the oral health of millions of people in the state.

When North Carolinians are unable to obtain dental care due to financial barriers, they do not receive the interventions needed to maintain good oral health. These individuals do not receive the periodic screening services necessary for early diagnosis of oral health conditions, nor do they receive timely treatment that can manage or stop disease progression. Thus, they may experience new and/or worsening dental disease states that negatively impact their systemic health and quality of life and increase their need for even more invasive and expensive oral health services over time. This results in dental disease becoming increasingly concentrated among low-income individuals.[6] Increasing North Carolinians' access to high-quality, whole-person oral health care is vital to ensuring the health of our state's population. This will require improving dental services payment and benefits design to remove financial barriers to care, especially with respect to public dental insurance under the NC Medicaid program. Chapter 2 of this report presents three recommendations and related strategies for doing that:

**RECOMMENDATION 1**

**Support a patient-centered dental home model for NC Medicaid beneficiaries.**

***Strategy 1:*** NC Medicaid should maintain and strengthen its commitment to compensating providers for emphasizing prevention and delivering restorative care by:

a. Adopting service definitions for preventive care at recommended periodicities to improve patient health (e.g., three dental cleanings per year if needed for periodontal health).
b. Designing payment mechanisms and policies that acknowledge the complexity of the oral health care needs of Medicaid beneficiaries, especially considering high levels of deferred and delayed care due to systemic barriers to access.
c. Working with partners, such as the NC State Board of Dental Examiners (NCSBDE), to ensure that people receiving outreach and evaluation services become established patients in a dental home.

***Strategy 2:*** NC Medicaid should compensate providers for providing high-quality patient-centered and whole-person oral health care by:

a. Designing reimbursement mechanisms that will appropriately compensate practices providing flexible, patient-centered care for individuals with special health care needs and those who meet agreed-upon criteria for complex care needs.
b. Providing payment for care coordination and navigation services that promote the integration of oral health care with medical, behavioral, and social care needs for all age groups, including children and adults with intellectual/developmental disabilities (I/DD) and autism spectrum disorder (ASD).
c. Providing reimbursement for services that support culturally attuned care, such as interpreter services.

[a] *Healthy People 2030 is a set of data-driven national objectives to improve health and well-being. It includes 359 measurable objectives. The leading health indicators are a small subset of high-priority objectives and address important factors that impact major causes of death and disease in the U.S. For more information, visit https://health.gov/healthypeople.*

**RECOMMENDATION 2**

**Improve access to care, including care for patients with special health care needs, by retaining providers, supporting innovative care, and enhancing access to specialty services.**

***Strategy 3:*** The NC General Assembly should establish a Medicaid Oral Health Payment Reform Task Force to:

a. Align compensation for oral health providers with state goals of improved access to care for current and future NC Medicaid beneficiaries.

b. Support NC Medicaid in increasing and expanding payment rates by:

   i. Developing a strategy to provide technical assistance on emerging and existing practices that will expand services reimbursed through Medicaid.

   ii. Prioritize increasing access to specialty care by increasing reimbursement for specialty providers.

***Strategy 4:*** NC Medicaid should address provider experience and administrative burden by:

a. Developing and implementing a strategy to identify administrative burdens for providers enrolled in the Medicaid program and working to reduce and eliminate barriers.

b. Partnering with the UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families to convene an ongoing provider working group to identify and track administrative barriers.

**RECOMMENDATION 3**

**Promote and incentivize high-quality patient experiences and positive health outcomes.**

***Strategy 5:*** NC Medicaid should continue to advance practice improvement by:

a. Developing programs and identifying funding sources to provide monetary and non-monetary incentives for dental practices, such as consulting services, technical assistance, professional development, technology, and patient education resources.

b. Expanding the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey to include measures related to oral health.

c. Developing a consumer advisory council to identify and track administrative barriers related to consumer experience, leveraging the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey.

## *Oral Health's Place in Integrated Health Care Systems*

The current oral health care system in North Carolina is a complex network of government, business, nonprofit, private, and public stakeholders that all serve unique roles in the rendering of oral health care services across the state. The components of this system all operate independently and on different scales at local, district, and state levels, each with their own unique goals and priorities. However, most members of the North Carolina oral health system share the overarching goal of helping patients achieve and maintain a positive state of oral health. Every oral health entity must operate successfully within the state oral health system, and the oral health system must operate within the larger health care system to achieve this goal. In essence, care integration is essential to the success of the system and its component parts. With an increasing emphasis on whole-person health, the oral health system must evolve to operate efficiently and cohesively on its own and within the larger health care system. As such, interventions to increase care integration at the oral health care system level will be vital to its success in meeting the demands of its stakeholders.

Chapter 3 of this report presents three recommendations and related strategies to improve oral health integration:

**RECOMMENDATION 4**

**Ensure patients experience seamless and integrated physical, oral, behavioral, and social care through coordination and collaboration between oral health and medical practitioners.**

***Strategy 6:*** NC Medicaid, the NC Health Information Exchange Authority, the North Carolina Medical Society, the North Carolina Dental Society, the Old North State Dental Society, and the North Carolina Healthcare Association should collaborate to identify mechanisms for improved coordination and data-sharing between medical, behavioral, and social care.

## RECOMMENDATION 5

**Support community-based access to oral health care.**

***Strategy 7:*** The NC Office of Rural Health and the NC Community College System should collaborate with the NC Community Health Workers Association (NCCHWA) to provide effective community-based education on oral health by:

a. Including oral health information in community health worker (CHW) training and certification curricula.

b. Partnering with NC Medicaid to identify and pursue reimbursement for CHW services inclusive of oral health.

***Strategy 8:*** The Foundation for Health Leadership and Innovation (FHLI) should develop actionable strategies to increase oral health provider participation in the NCCARE360 platform and further build community network adequacy for effective oral health resource allocation and referrals.

$ ***Strategy 9:*** The North Carolina Healthcare Association and NC Medicaid should pilot a model for an emergency department referral program to improve access to comprehensive follow-up dental care for individuals who currently receive most or all dental care in emergency departments and urgent care settings.

*The dollar sign icon indicates strategies throughout the report that require financial investment for success. These activities need monetary resources to be implemented effectively and may yield substantial returns when properly funded.*

## RECOMMENDATION 6

**Strengthen the integration of the NC Medicaid oral health program into broader NC Medicaid initiatives and support interdisciplinary education and partnerships to promote oral health and provide care across the lifespan.**

$ ***Strategy 10:*** The NC Oral Health Collaborative (NCOHC) should:

a. Collaborate with the NC Community College System and NC AHEC to provide sustainable and complementary oral health training to community health workers, based on the curricular design identified by the NCCHWA.

b. Collaborate with the NC Pediatric Society and the NC Medical Society to identify strategies and tools to further integrate oral health into primary care.

c. Collaborate with NC Medicaid, the NC Dental Society, the Old North State Dental Society, the NC Department of Health and Human Services (DHHS) Department of Public Health (DPH) Oral Health Section, pediatric dentists, and dental schools to continue to identify priority oral health outcomes and metrics across the lifespan.

$ ***Strategy 11:*** NC AHEC should facilitate collaboration between medical and dental degree programs and coordination of placement in community interdisciplinary training sites.

***Strategy 12:*** The North Carolina DHHS DPH Oral Health Section should:

a. Expand strategies to further promote its integrative and collaborative education and training programs.

b. Collaborate with other divisions within NC DHHS to include oral health screening measures in existing and future health screening tools.

***Strategy 13:*** The NC Department of Public Instruction and philanthropic organizations should partner to coordinate and identify funding to support expanded access to school-based dental programs.

***Strategy 14:*** The UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families and NC DHHS DPH should support healthy beverage consumption among children and families through education, programs, and policies that support and align with expert recommendations outlined in the Healthy Beverage Consumption in Early Childhood: Recommendations from Key National Health and Nutrition Organizations.

## *Sustaining a Robust Dental Workforce by Promoting Growth and Retention*

North Carolina has a critical opportunity to build and sustain pathways into the oral health profession. The state's capacity to cultivate and maintain a robust workforce within oral health is paramount to effectively addressing the diverse and growing oral health needs spanning every community in North Carolina. The dental team forms the cornerstone of direct patient care and is supported by a broad spectrum of professionals and individuals dedicated to ensuring the delivery and accessibility of comprehensive oral health care services. Investing in the existing oral health workforce while also fostering the growth of future professionals through pathway development programs is an important strategy for reinforcing and securing the future of North Carolina's oral health care workforce.

Chapter 4 of this report presents five recommendations and related strategies to address oral health workforce needs for North Carolina residents:

### RECOMMENDATION 7

**Increase the number and improve distribution and diversity of members of the dental team in North Carolina with a focus on Medicaid-serving and rural practices.**

***Strategy 15:*** The North Carolina State Education Assistance Authority should evaluate the rules and regulations for the Forgivable Education Loans for Service (FELS) program and develop a plan to eliminate repayment requirements that might adversely impact dental student participation.

$ ***Strategy 16:*** The North Carolina DHHS DPH Oral Health Section should:

a. Seek funding to lead a collaborative effort to develop, deploy, monitor, and assess efforts to address oral health workforce issues.
b. Collaborate with the North Carolina Dental Society, NC Medicaid, the North Carolina Office of Rural Health, and the NC DHHS DPH Oral Health Section to develop and deploy an education strategy to increase awareness of oral health workforce challenges among the general assembly; local, state, and federal elected officials; economic development officials; and the public.
c. Provide data on the diversity of the current and projected workforce and convene oral health professionals, along with professionals from other sectors, to identify innovative and evidence-based strategies for retention.

***Strategy 17:*** The NC General Assembly should increase funding to the NC Community College System to expand program capacity for dental hygienists and assistants. Strategies include increasing the number of community college oral health faculty and developing a full-time position responsible for supporting new and expanded oral health program capacity for dental hygienist and assistant training and professional development.

$ ***Strategy 18:*** NC AHEC should establish a statewide, full-time position dedicated to supporting dental health professional development as part of whole-person care, including continuing education, residency training, and oral health care in non-dental settings.

***Strategy 19:*** The North Carolina Oral Health Collaborative, the NC DHHS DPH Oral Health Section, the North Carolina Dental Hygienists' Association, the North Carolina Dental Assistants Association, and the North Carolina Dental Society should collaborate to identify and implement career ladders for dental hygienists and dental assistants.

***Strategy 20:*** The UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families should periodically convene the UNC Adams School of Dentistry, East Carolina University (ECU) School of Dental Medicine, the High Point University Workman School of Dental Medicine, and North Carolina community colleges to identify best practices to address challenges and opportunities to increase the diversity of the oral health workforce.

### RECOMMENDATION 8

**Expand scope of practice for dental hygienists and dental assistants to increase clinical impact, effectiveness, and efficiency.**

***Strategy 21:*** The North Carolina Dental Society, North Carolina Oral Health Collaborative, the North Carolina Dental Hygienists' Association, the North Carolina Dental Assistant Educators' Association, and the North Carolina Dental Assisting Association should partner to convene a group to examine scope of practice for dental hygienists and assistants by:

a. Engaging dental hygienists and assistants to better understand professional needs and motivations.
b. Conducting research to analyze regulation, supervision, and scope of practice for dental hygienists and assistants by state.
c. Ensuring expanded dental hygienist and assistant representation on the North Carolina Dental Society Council for Prevention in Oral Health.

### RECOMMENDATION 9

**Elevate the oral health profession through early exposure and ongoing continuing education.**

***Strategy 22:*** NC AHEC, myFutureNC, and NC Health Occupations Students of America (HOSA) should collaborate to develop an initiative to prioritize and support pre-secondary oral health career exposure by:

a. Adding oral health career pathways components to the school-based oral health education program curriculum.
b. Including oral health in North Carolina high school academies of medicine.

### RECOMMENDATION 10

**Advance oral health career pathways and concentrations.**

***Strategy 23:*** The North Carolina Dental Society, dental schools, community colleges, and the UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families should partner to:

a. Promote mentorship for oral health students to increase interest in serving in rural practice, safety-net settings, and other practices serving Medicaid patients and patients with special health care needs.

b. Develop pathways for practicing oral health professionals to become educators, instructors, and mentors for dentistry, dental hygiene, and dental assisting in a variety of educational and practice settings, including mobile dentistry and specialty care clinics.

c. Facilitate the connection between dental education programs, including UNC Adams School of Dentistry, ECU School of Dental Medicine, Workman School of Dental Medicine, and North Carolina community colleges.

***Strategy 24:*** The North Carolina Oral Health Collaborative should work with partners to increase options and improve accessibility for training oral health practitioners in core tenets and values of whole-person oral health care, including:

a. Implementing shared decision-making techniques and supporting the right to self-determination.

b. Supporting patient dignity, respecting human difference, and recognizing historical inequities.

c. Assessing and addressing social and economic need.

### RECOMMENDATION 11

**Expand and improve local and state public health data and human resources to catalyze community problem-solving.**

***Strategy 25:*** Local public health agencies and community-level health coalitions should assess and prioritize the oral health status of community members, opportunities for achievement of equitable outcomes, local assets and resources available, and feasible implementation strategies.

***Strategy 26:*** NC DHHS DPH and NC DHHS DPH Oral Health Section should continue to collect and disseminate oral health outcome data and develop resources for analyzing local data and supporting feasible implementation goals. Goals should include:

a. Conducting a statewide assessment to better understand the current state of unmet oral health care needs among adults and children in North Carolina.

b. Adopting validated oral health questions on North Carolina's Annual Behavioral Risk Factor Surveillance System (BRFSS) Questionnaire.

c. Developing and sustaining the data dashboard of publicly available, county- and state-level oral health metrics.

d. Disseminating information to local health departments, local health coalitions, and elected officials and health care leaders.

## *Enhancing Consumer Experience and Satisfaction in Oral Health Care*

Consumer experience is fundamental to the task force's vision of building a high-quality oral health system in North Carolina. Understanding what patients go through during their oral health journey is essential to achieving this vision. Consumer experience is defined by interactions within the oral health system and influenced by access to care, culturally appropriate care, care coordination and integration, and communication. By focusing on the factors that influence consumer experience, we can strive toward a health care system that prioritizes patient well-being and satisfaction. Recognizing and addressing these elements contributes to improved oral health experiences and satisfaction.[7]

Chapter 5 of this report presents three recommendations and related strategies to address consumer experience and satisfaction in oral health care:

### RECOMMENDATION 12

**Build consumer trust by establishing clear and accessible pathways for understanding and improving consumer experiences within the oral health system.**

***Strategy 27:*** NC Medicaid should collaborate with county Departments of Social Services to identify and improve barriers to Medicaid enrollment and utilization.

***Strategy 28:*** Leaders and advocates in the NC Medicaid system should develop mechanisms to evaluate consumers' experiences with receiving oral health care and identify necessary support and actions for improvement.

## RECOMMENDATION 13

**Expand and improve data collection systems to improve access to and quality of oral health care delivery.**

***Strategy 29:*** The NC DHHS DPH Oral Health Section should continue to facilitate collaboration between NC DHHS, the UNC Sheps Center for Health Services Research, the North Carolina State Board of Dental Examiners, the North Carolina Oral Health Collaborative, NC Medicaid, and the State Center for Health Statistics to synthesize clinical, payment (claims), workforce, and public health data in a central location for researchers, payers, and practitioners to access this information to:

a. Assess the current state of unmet oral health care needs of adults and children in North Carolina.
b. Assess workforce needs and improve access to care and oral health outcomes.
c. Identify successes, priorities, and opportunities for measurable improvement.

***Strategy 30:*** NC Medicaid should provide resources to help oral health providers achieve meaningful practice improvements that will enhance consumers' experience, access, and outcomes. These resources may include:

a. Easily accessible information and training for enrollment, prior approval, claims submissions, and other administrative procedures that enable providers to participate in the program more efficiently.
b. Quantitative data that inform practices of their progress within the context of peer performance benchmarks.

$ ***Strategy 31:*** NC Medicaid should increase funding for the NC AHEC practice support coaching program to facilitate the inclusion of dental providers.

## RECOMMENDATION 14

**Integrate the oral health program into NC Medicaid initiatives aimed at increasing access to care by addressing social and environmental drivers of health.**

***Strategy 32:*** NC Medicaid should:

a. Develop a strategy to further integrate oral health into the NC DHHS Healthy Opportunities Pilots.
b. Integrate oral health into beneficiary health assessments for NC Medicaid Prepaid Health Plans and Behavioral Health I/DD Tailored Plans and develop a strategy to connect beneficiaries to a dental home.
c. Develop and distribute targeted oral health education materials to Tailored Care Managers, providers, and direct support professionals.
d. Develop an accurate real-time directory of dental providers who accept new Medicaid beneficiaries.
e. Develop and integrate consumer-focused online and print materials that describe member benefits, which may include:
   i. Targeted language about oral health and clear directions for accessing the benefit.
   ii. Developmentally appropriate materials that are available in multiple accessible formats.
   iii. Inclusion of the dental benefit on member cards.
f. Collaborate with the NC DHHS DPH Oral Health Section to develop and publish an annual report that provides updates on important oral health data and outcomes in the state. This may include data on access to care, data demonstrating the impact of Medicaid expansion on oral health outcomes, and other successes and challenges experienced at the state level.

## *Bridging Vision to Action: Executing a Collaborative Implementation Plan for Oral Health Transformation*

The implementation phase is an important step in transforming dentistry in North Carolina, turning vision and policy recommendations into actions that reshape how oral health is delivered. North Carolina has many opportunities to commit resources to improve oral health outcomes. In the wake of Medicaid expansion, the state has reaffirmed its commitment to change for better access, investment in whole-person health, and support for North Carolina's health care workforce. The success of the recommendations and related strategies outlined in this report depends on collaborative effort that involves partners, advocates, legislators, and others named in this report.

The Oral Health Transformation Task Force originated from a three-part plan championed by North Carolina Oral Health Collaborative (NCOHC) to revamp oral health care.

***Phase One:*** The first phase focused on studying and gathering information to better understand challenges and opportunities for improving consumer and provider experiences within our system.

***Phase Two:*** The second phase focused on the convening of the Oral Health Transformation Task Force, bringing together key players including health care experts, policymakers, and influencers to brainstorm ideas for transforming oral health care in North Carolina.

***Phase Three:*** The focus of the third phase will be to share task force findings and create a roadmap for change. The work that happens in this phase will maintain the forward momentum established in the first two phases, continuing progress toward a health care system that offers equitable and integrated care.

## EXECUTIVE SUMMARY

Establishing an Oral Health Transformation Coalition marks the first step and a critical milestone in ushering in Phase Three of this initiative. This coalition, reliant on collective action and robust partnerships, will lead the execution of outlined recommendations, steering the momentum established by the task force toward effectual change. Through communication strategies, action planning, and comprehensive monitoring, this coalition will aim to engage the stakeholders who will be crucial for the successful implementation of transformative strategies. Now, planning converges with practical execution, propelling North Carolina toward a future of enhanced oral health care accessibility and delivery.

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# RESPONSIBLE PARTIES AND PARTNERS

## RESPONSIBLE PARTIES AND PARTNERS

**X** = Responsible Party **O** = Partner **NCDHHS** = North Carolina Department of Health and Human Services; **NC AHEC** = North Carolina Area Health Education Centers

| Recommendations and Strategies | Page # | NC Medicaid | NC AHEC | NC DHHS | NC General Assembly | Other State Agencies and Initiatives | Local Government | Education | Trade Organizations | Health/ Health Care | Workforce |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Recommendation 1: Support a patient-centered dental home model for NC Medicaid beneficiaries.** | 46 | | | | | | | | | | |
| **Strategy 1 -** Maintain and strengthen commitment to compensating providers for emphasizing prevention and delivering restorative care | 46 | X | | | | O | | | | | |
| **Strategy 2 -** Compensate providers for providing high-quality patient-centered and whole-person oral health care | 47 | X | | | | | | | | | |
| **Recommendation 2: Improve access to care, including care for patients with special health care needs, by retaining providers, supporting innovative care, and enhancing access to specialty services.** | 48 | | | | | | | | | | |
| **Strategy 3 -** Establish a Medicaid Oral Health Payment Reform Task Force | 48 | O | | | X | | | | | | |
| **Strategy 4 -** Address provider experience and administrative burden | 49 | X | | | | | | O | | | |
| **Recommendation 3: Promote and incentivize high-quality patient experiences and positive health outcomes.** | 49 | | | | | | | | | | |
| **Strategy 5 -** Continue to advance practice improvement | 50 | X | | | | | | | | | |
| **Recommendation 4: Ensure patients experience seamless and integrated physical, oral, behavioral, and social care through coordination and collaboration between oral health and medical practitioners.** | 56 | | | | | | | | | | |
| **Strategy 6 -** Collaborate to identify mechanisms for improved coordination and data-sharing between medical, behavioral, and social care | 59 | O | | | | O | | | O | O | |
| **Recommendation 5: Support community-based access to oral health care.** | 60 | | | | | | | | | | |
| **Strategy 7 -** Collaborate to provide effective community-based education | 61 | O | | X O | | | | X O | | | O |
| **Strategy 8 -** Develop actionable strategies to increase oral provider participation in the NCCARE360 platform | 61 | | | | | | | | | X | |
| **Strategy 9 -** Pilot a model for an emergency department referral program | 62 | X | | | | | | | X | | |
| **Recommendation 6: Strengthen the integration of the NC Medicaid oral health program into broader NC Medicaid initiatives and support interdisciplinary education and partnerships to promote oral health and provide care across the lifespan.** | 64 | | | | | | | | | | |
| **Strategy 10 -** Collaborate to provide training and identify strategies to further integrate oral health care into primary care | 64 | O | O | O | | O | | O | O | | |
| **Strategy 11 -** Facilitate collaboration between medical and dental degree programs and coordination of placement in community interdisciplinary training sites | 66 | | X | | | | | O | | | |
| **Strategy 12 -** Expand strategies to further promote training programs and include oral health screening measures | 66 | | | X O | | | | | | | |
| **Strategy 13 -** Coordinate and identify funding to support expanded access to school-based dental programs | 67 | | | | | X | | | O | | |
| **Strategy 14 -** Support healthy beverage consumption among children and families | 68 | | | | | | | X | | | |
| **Recommendation 7: Increase the number and improve distribution and diversity of members of the dental team in North Carolina with focus on Medicaid-serving and rural practices.** | 74 | | | | | | | | | | |
| **Strategy 15 -** Develop a plan to eliminate repayment requirements that might adversely impact dental student participation | 75 | | | | | X | | | | | |
| **Strategy 16 -** Develop, deploy, monitor, and assess efforts to address health workforce issues and provide data on the diversity of the workforce | 76 | O | | O | | O | O | | O | | X |
| **Strategy 17 -** Increase funding to expand program capacity for dental hygienists and assistants | 77 | | | | X | | | O | | | |
| **Strategy 18 -** Establish a statewide, full-time position to support dental health professional development | 77 | | X | | | | | | | | |
| **Strategy 19 -** Identify and implement career ladders for dental hygienists and dental assistants | 78 | | | O | | | | | O | O | |
| **Strategy 20 -** Convene dental medicine schools to address challenges and opportunities to increase the diversity of the oral health workforce | 78 | | | | | | | X O | | | |
| **Recommendation 8 - Expand scope of practice for dental hygienists and dental assistants to increase clinical impact, effectiveness, and efficiency.** | 79 | | | | | | | | | | |
| **Strategy 21 -** Convene a group to examine scope of practice for dental hygienists and assistants | 81 | | | | | | | | O | O | |
| **Recommendation 9 - Elevate the oral health profession through early exposure and ongoing continuing education.** | 81 | | | | | | | | | | |
| **Strategy 22 -** Develop an initiative to prioritize and support pre-secondary oral health career exposure | 82 | | O | | | | | | O | | |
| **Recommendation 10 - Advance oral health career pathways and concentrations.** | 82 | | | | | | | | | | |
| **Strategy 23 -** Promote mentorship for oral health students and develop pathways for practicing oral health professionals to become educators | 83 | | | | | | | X | X | | |
| **Strategy 24 -** Increase options and improve accessibility for training oral health practitioners in whole-person oral health care | 84 | | | | | | | | | X | |
| **Recommendation 11 - Improve the ability of community health workers to address the needs of older adults.** | 85 | | | | | | | | | | |
| **Strategy 25 -** Assess and prioritize the oral health status of community members and opportunities for achievement of equitable outcomes | 85 | | | | | | X | | | | |
| **Strategy 26 -** Collect and disseminate oral health outcome data and develop resources for analyzing local data | 86 | | | X | | | | | | | |
| **Recommendation 12 - Build consumer trust by establishing clear and accessible pathways for understanding and improving consumer experiences within the oral health system.** | 91 | | | | | | | | | | |
| **Strategy 27 -** Identify and improve barriers to Medicaid enrollment and utilization | 93 | O | | | | | O | | | | |
| **Strategy 28 -** Develop mechanisms to evaluate consumers' experiences | 94 | X | | | | | | | | | |
| **Recommendation 13 - Expand and improve data collection systems to improve access to and quality of oral health care delivery.** | 95 | | | | | | | | | | |
| **Strategy 29 -** Synthesize clinical, payment (claims), workforce, and public health data in a central location | 96 | O | | X O | | O | | O | | O | |
| **Strategy 30 -** Provide resources to help oral health providers achieve meaningful practice improvements | 97 | X | | | | | | | | | |
| **Strategy 31 -** Increase funding for the practice support coaching program | 98 | X | O | | | | | | | | |
| **Recommendation 14 - Integrate the oral health program into NC Medicaid initiatives aimed at increasing access to care by addressing social and environmental drivers of health.** | 99 | | | | | | | | | | |
| **Strategy 32 -** Develop strategies to further integrate oral health into the Healthy Opportunities Pilots, develop and distribute oral health education materials, and develop and publish an annual report | 100 | X | | O | | | | | | | |

**NCDHHS** = NC Office of Rural Health, Department of Public Health Oral Health Section, State Center for Health Statistics; **Other State Agencies and Initiatives** = NC State Board of Dental Examiners, NC Department of Public Instruction, NC Health Information Exchange Authority, NC State Education Assistance Authority; **Local Government** = local public health agencies, community-level health coalitions, county Departments of Social Services; **Education** = UNC Gillings School of Global Public Health, NC Community College System, UNC Adams School of Dentistry, East Carolina University School of Dental Medicine, High Point University Workman School of Dental Medicine; **Trade Organizations** = the North Carolina Dental Society, the Old North State Dental Society, North Carolina Healthcare Association, NC Pediatric Society, NC philanthropies, North Carolina Dental Assisting Educator Association, North Carolina Dental Assistants Association; myFutureNC, NC Health Occupations Students of America; **Workforce** = NC Community Health Workers Association, NC Center on the Workforce for Health; **Health/Health Care** = NC Medical Society, NC Oral Health Collaborative, Center on the Workforce for Health, UNC Sheps Center for Health Services Research, NC Foundation for Health Leadership and Innovation

1

# CHAPTER ONE

## Toward Comprehensive Wellness: Uniting Oral Health and a Vision for a Patient-Centered Future in North Carolina

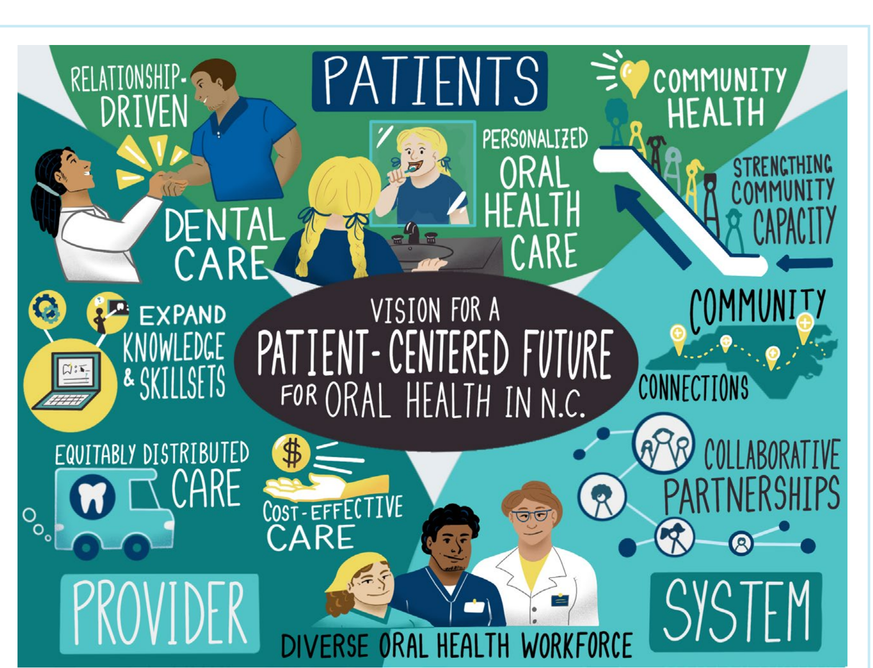
The NCIOM Oral Health Transformation Task Force envisions a patient-centered future for oral health in North Carolina, in which oral health care is redefined as comprehensive and seamlessly integrated with overall health. In this future, dentistry is a valued contributor to improved health, and exists within a landscape where high-quality oral health care transcends siloed care and complicated administrative processes. This vision aims to change oral health by placing patients at the center and emphasizing accessibility, equity, and integration within the broader health care landscape. Oral health plays a critical role in individual and community health outcomes and is intricately connected to physical, mental, and social well-being. By envisioning a future where oral health is incorporated into the larger health care system and aligned with the desired future of health in North Carolina, our state can ensure that patient needs drive investments and care decisions and that all residents receive timely, tailored, and personalized oral health care that complements whole-person health.

**The task force vision is grounded in three overarching goals:**

**Patients easily access affordable oral health care within an integrated health care model.**

**Oral health care providers, including and specifically those serving Medicaid patients, work within a system of high-quality, cost-effective care that is seamlessly integrated, with a wholistic approach that fosters collaboration among health and social care teams.**

**North Carolina's oral health system is a collaborative ecosystem in which North Carolina Medicaid and other state agencies, educational institutions, philanthropic organizations, and diverse thought partners work together to cultivate a wholistic, accountable, and equitable approach to oral health.**




## KEY CONCEPTS DRIVING THE TASK FORCE VISION

Addressing social determinants of health (SDOH), promoting health equity, and reducing health inequity and disparities are goals central to the task force vision for the future of oral health in North Carolina. These terms are defined below.

### Social Determinants of Health

"SDOH are the nonmedical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies, racism, climate change, and political systems."[1]

*Source: https://www.cdc.gov/publichealthgateway/sdoh/index.html*

### Health Disparities

"Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations."[2]

### Health Inequity

Health inequity refers to the existence of disparities in health stemming from systemic, preventable, and unjust social and economic policies and practices that create barriers to opportunities.[3]

### Health Equity

"Health equity is the state in which everyone has a fair and just opportunity to attain their highest level of health." Health equity is achieved by addressing social determinants of health and health disparities.[4] We can advance health equity, improve oral health outcomes, and reduce disparities by addressing social determinants of health.

In this introduction, we outline data and context that contributed to the task force's development of these goals. The task force vision supports evidence-based science that advances task force aspirations. It is committed to rectifying pervasive racial disparities in oral health outcomes, striving for equity and inclusivity. In this future state, high-quality oral health care is inherently culturally attuned. It is accessible, eliminates barriers to care, and fosters integration within broader health and social care. At its core are nurturing, trusting relationships rooted in patient values and mutual respect.

The discussions and recommendations of the NCIOM Oral Health Transformation Task Force in this report are driven by the necessity to identify comprehensive approaches addressing diverse factors shaping oral health outcomes. The recommendations and strategies presented throughout the report outline the structures, investments, and policies necessary to realize the task force's vision for the future of oral health in North Carolina.

## Introduction to Oral Health: A Foundation for Overall Wellness

Oral health is a cornerstone of overall health, mirroring the physiological, social, and psychological factors necessary for a high quality of life.[5] Oral health encompasses the well-being of teeth, gums, mouth, and associated structures, all of which are vital for crucial tasks like eating and speaking.[6] It is shaped not just by genetics and cultural factors but also by behaviors, dietary habits, socioeconomic status, geographical location, and living conditions.[6] Recognized as a primary health marker in initiatives like Healthy People 2030[a], oral health stands as an influential determinant of well-being.

***A beautiful smile could be a gateway to the best things in life…finding your perfect job, meeting the perfect mate, or just feeling good when you look in the mirror. Sometimes, it all starts with a great smile.[7]***

The significance of oral health extends far beyond aesthetics. It underpins fundamental human activities and profoundly influences self-esteem, social interactions, and overall mental well-being. Particularly as individuals age, maintaining optimal oral health becomes increasingly challenging due to biological changes. The imperative for the discussions and recommendations of the NCIOM Oral Health Transformation Task Force presented in this report resides in the need to identify comprehensive approaches to address these diverse factors that shape oral health outcomes.

### WHAT IS ORAL DISEASE?

Oral diseases encompass a range of conditions affecting the mouth, teeth, gums, and related structures. Among the most prevalent oral diseases are dental caries and periodontitis.

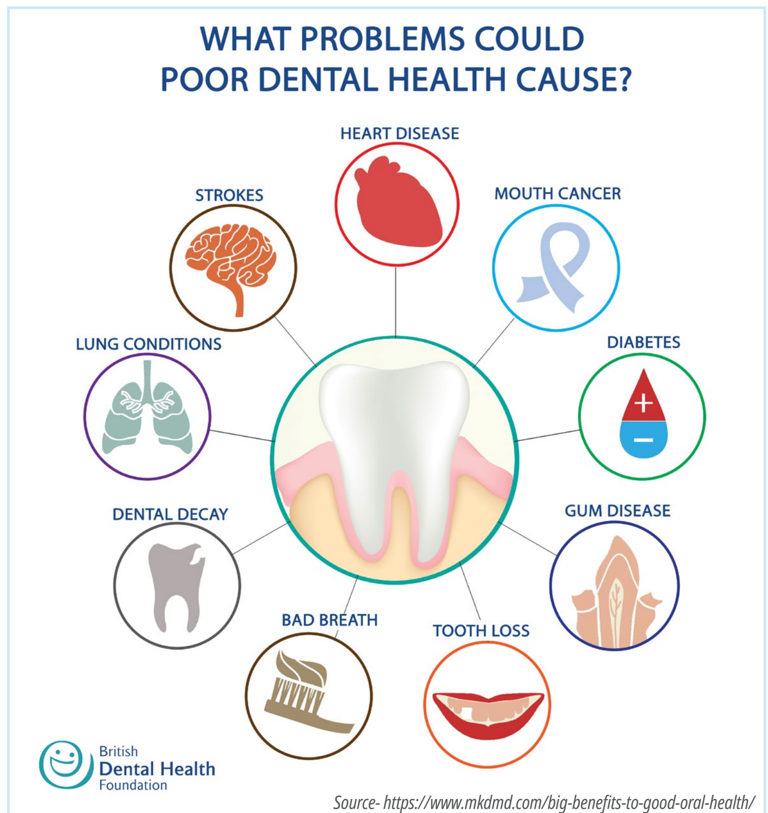
**Dental Caries**

Dental caries, often known as cavities or tooth decay, happen when acids produced by bacteria eat away at the outer layer of the teeth, causing small holes or cavities. If not treated, these cavities can grow larger and lead to toothaches, infections, and even tooth loss.[8]

**Periodontitis**

Periodontitis is a severe inflammatory condition affecting the gums and supporting structures around the teeth. It typically starts with the buildup of plaque, a sticky film of bacteria, which leads to gum irritation and eventually infection. As the infection progresses, it can damage the gums and the bone supporting the teeth, causing gums to pull away from the teeth, leading to loose teeth or even tooth loss.

Both dental caries and periodontitis can be prevented or managed with good oral hygiene, regular dental check-ups, and healthy lifestyle.[9]




*Source- https://www.mkdmd.com/big-benefits-to-good-oral-health/*

[a] *Healthy People 2030 is a set of data-driven national objectives to improve health and well-being. It includes 359 measurable objectives. The leading health indicators are a small subset of high-priority objectives and address important factors that impact major causes of death and disease in the U.S. For more information, visit https://health.gov/healthypeople.*

## Oral Health Across the Lifespan

Oral health influences a person's overall well-being from childhood into older adulthood. In early years, establishing good oral hygiene habits like regular brushing, flossing, and dental check-ups, is vital for preventing cavities and setting the foundation for a lifetime of healthy teeth and gums. As individuals grow, changes in diet and lifestyle and hormonal shifts during puberty and young adulthood can impact oral health, emphasizing the need for continued preventive care. During adulthood, maintaining oral hygiene and addressing issues like gum disease become paramount to preventing tooth loss and other complications. In later stages of life, older adults may face specific oral health challenges, such as increased risk of cavities, dry mouth, and gum disease, necessitating specialized care in order to maintain oral health and overall quality of life. Consistent attention to oral health across all stages of life is key to preserving a healthy smile and overall well-being.

### Children

The American Dental Association (ADA) recommends that tooth brushing begin as soon as the first teeth erupt, and that children see a dentist by their first birthday. These initial visits can help children learn proper brushing techniques and diagnose problems early.[10]

However, some North Carolina children are more likely to experience dental issues: data upon kindergarten entry show that 55% of American Indian and 52% of Hispanic children were found to have tooth decay, compared to 30% of White children.[11] These groups were also more likely to have untreated tooth decay than White children.

Rates of untreated tooth decay have decreased, but some children are still more likely than others to experience dental issues. Nationally, about 13% of children have untreated tooth decay.[12,13] Rates of dental decay continue to be higher in those who live in lower-income households.[5] Among North Carolina kindergarteners, 24% of American Indian, Hispanic, and Black children and 44% of Native Hawaiian/Pacific Islanders were found to have untreated tooth decay, compared to 16% of White children.[11,14] Cavities in baby teeth can negatively affect permanent teeth and potentially lead to dental problems later in life.[15] Children with poor oral health have been shown to miss more school and receive lower grades than children with better oral health.[16] Poor oral health has also been shown to lead to delayed growth and development.[17]

### Adults

While more adults are keeping their natural teeth, consistent preventive care is important for reducing the risk of dental problems. Nearly half of US adults aged 30 years or older show signs of gum disease and 26% of adults have untreated tooth decay.[18]

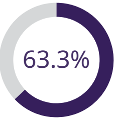
Disparities also persist in rates of gum disease and other oral health problems. A 2018 National Health and Nutrition Examination Survey showed that the prevalence of gum disease among adults aged 30 years or older is higher in Black (57%) and Mexican American (60%) populations compared with White populations (37%).[5] AI/AN adults have the highest prevalence of oral disease than any other ethnic minority group. Severe gum disease was reported for 17% of AI/AN adults aged 35 years or older, compared to 10% of all US adults.[5]

### U.S. ORAL HEALTH STATISTICS

**Nearly 1 in 5 adults experience dental anxiety, preventing them from seeking oral health care.**

**More than 1 in 4 adults lack dental insurance.**

**Nearly 9 out of 10 adults have experienced tooth decay. Gum disease affects almost 50% of adults aged 45–64 years.**




**In 2022, only 63.3% of adults reported having a dental exam or cleaning in the past 12 months. This is a decline from 2019, when rates were 65.5%.**

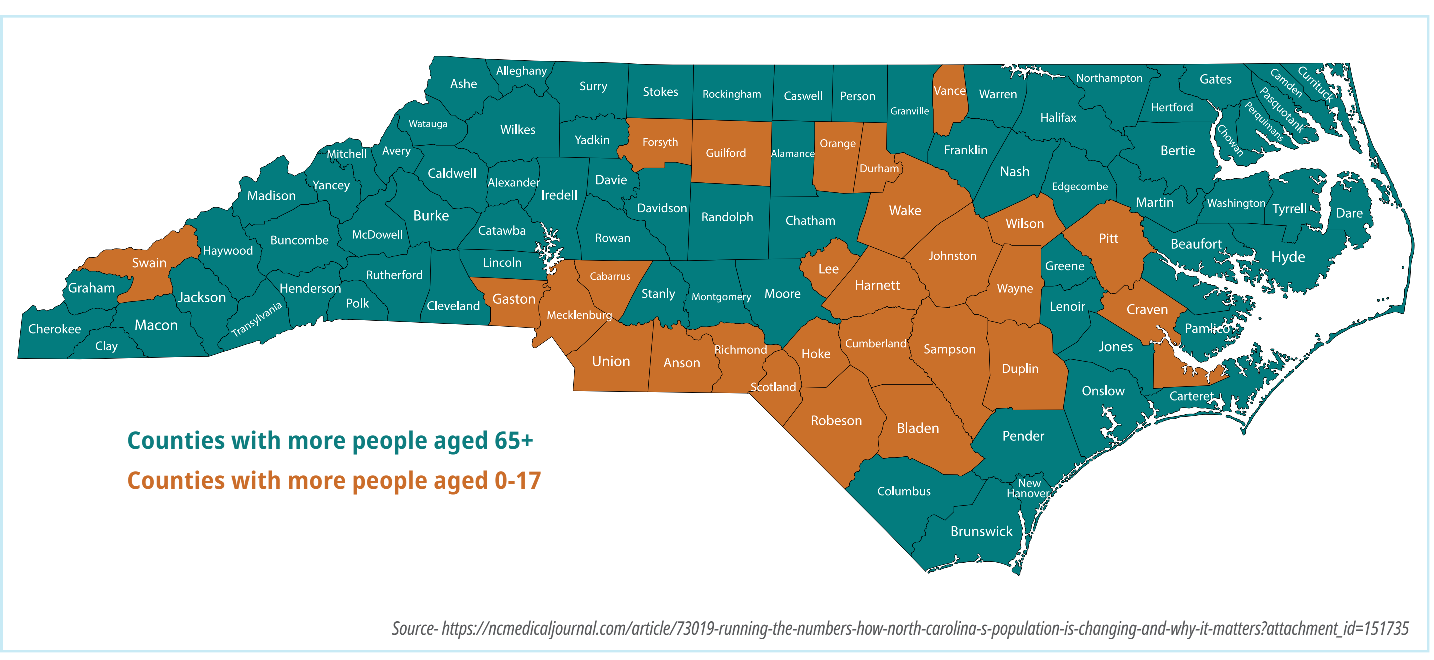
**In 2018, almost 9% of publicly insured adults aged 18–64 reported a loss of all natural teeth.**

## Older Adults

By 2035, there will be more adults aged 65 and older in the United States than children under age 18.[5] North Carolina's population change is estimated to follow this trend with 72 of North Carolina's 100 counties having more people aged 65 and up than 17 and under by 2030.[19] As of 2020, only 13% of older adults have lost all their teeth, compared to 50% in the 1960s.[5] Still, oral health problems tend to impact older adults more than younger adults, due to increased risk for cavities, gum disease, and tooth loss, as well as higher rates of chronic disease.[20] Medication use is also a factor; more than 500 medications cause dry mouth, including many for high blood pressure, cholesterol, Parkinson's disease, and Alzheimer's.[21] Dry mouth can increase the likelihood of cavities. Natural tooth wear also affects the quality and strength of teeth, potentially predisposing this population to oral diseases.[22] Being homebound, disabled, or living in a nursing home also increases the risk of poor oral health.[20] A decline in manual dexterity may interfere with ability to independently perform oral hygiene.

Sarcopenia, which is the involuntary loss of muscle mass and strength, is a condition often associated with aging. It affects the muscles associated with chewing and swallowing, which can have a negative impact on food intake.[22] The resulting malnutrition may then predispose an older adult to inflammation of the gums, which can lead to gum disease.[22] Tooth loss can adversely affect dietary choices and decrease social engagement due to poor esthetics and embarrassment, and increase social isolation and loneliness.

Inadequate access to dental care adversely and particularly affects older adults who do not have dental insurance coverage; unlike for children, there are few programs to dedicated to address this issue.[5] For example, Medicare does not provide oral health benefits outside of a limited range of dental services for beneficiaries undergoing major medical treatment.[23,24] While some Medicare Advantage programs offer dental benefits, the scope of benefits is often limited and results in high out-of-pocket costs.[24]




*Source- https://ncmedicaljournal.com/article/73019-running-the-numbers-how-north-carolina-s-population-is-changing-and-why-it-matters?attachment_id=151735*

## *A Patient-Centered Vision for Oral Health in North Carolina*

The task force's envisioned future for North Carolina's oral health system is one in which patients easily access affordable care within an integrated health care model, fostering an environment where medical and dental professionals are informed and work collaboratively. Patients experience care within a system that emphasizes ease of access, prioritizes preventive measures and clinically appropriate care, and ensures wholistic well-being.

**Key Elements of the Vision:**

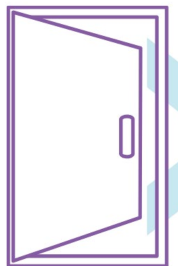
- **Establishment of a Dental Home by Age One:** Every North Carolina resident establishes a dental home by age one, facilitating early and consistent access to oral health care.
- **Continuous Care in a Welcoming Dental Home:** Patients remain in regular, ongoing care within a welcoming and trusted dental home, fostering a relationship-based approach to oral health.
- **Timely Access to Preventive and Restorative Services:** Patients receive all preventive and restorative services at appropriate times, reducing the likelihood of preventable oral health issues.
- **Tools and Resources for Good Oral Hygiene Practices:** Patients have access to the tools and knowledge necessary for practicing good daily oral hygiene.
- **Access to Healthy Nutritional Choices:** Patients have access to healthy and nutritional food choices, recognizing the direct impact of diet on oral health.
- **Effective Oral Health Consultation and Education:** Patients have access to oral health consultation and education is provided in formats and languages conducive to effective learning, ensuring information accessibility and comprehension for all.

## *Drivers for a Patient-Centered Future of Oral Health*

Access to oral health care means having timely use of affordable and convenient oral health services to achieve the best health outcomes.[25,26] This is the foundation for the task force vision for the future of oral health for North Carolina residents. Poor access to oral health services is caused by a variety of factors including financial barriers and lack of insurance, geographical challenges, provider shortages, and structural inequities that include social determinants of health like poverty. How North Carolina residents identify, receive, and pay for oral health care has both systemic and individual implications. The task force vision for oral health in North Carolina prioritizes enhancing individual experiences through system-level change, ensuring that every patient receives not only accessible care but also a seamless, empowering journey toward optimal oral health.

# BARRIERS TO ACCESS

**drive inequities in oral health care felt by communities across North Carolina, preventing people from seeking, reaching, and receiving the care they need**



## SEEKING CARE

- Dental anxiety, fear, and shame
- Adverse oral health care experiences such as discrimination or stigmatization that erode trust
- Practice environments that don't meet the needs of the community, such as inadequate hours of operation or segmented scheduling blocks for Medicaid
 recipients and "other payer types"
- Oral health and overall health literacy
- Ethnic, religious, and cultural beliefs
- Cost of care
- Perceived value of care

## REACHING CARE

- Structural realities of poverty, both direct (i.e. ability to pay) and indirect (i.e. access to transportation, time off of work, and childcare
- Structural racism
- Lack of disability accommodations
- Maldistribution of dentists and other access points
- Misalignment of finances and/or benefit coverage with existing access points
- Complexities of coordinating care
- Insurance inequities and inadequacies
- Cultural and linguistic barriers

## RECEIVING CARE

- Negative office experiences due to income, insurance, disability, race, ethnicity, and cultural differences
- Provider biases and displays of micro-aggressions
- Miscommunication and lack of understanding between provider and patient or guardian
- Provider competence and comfort level providing care

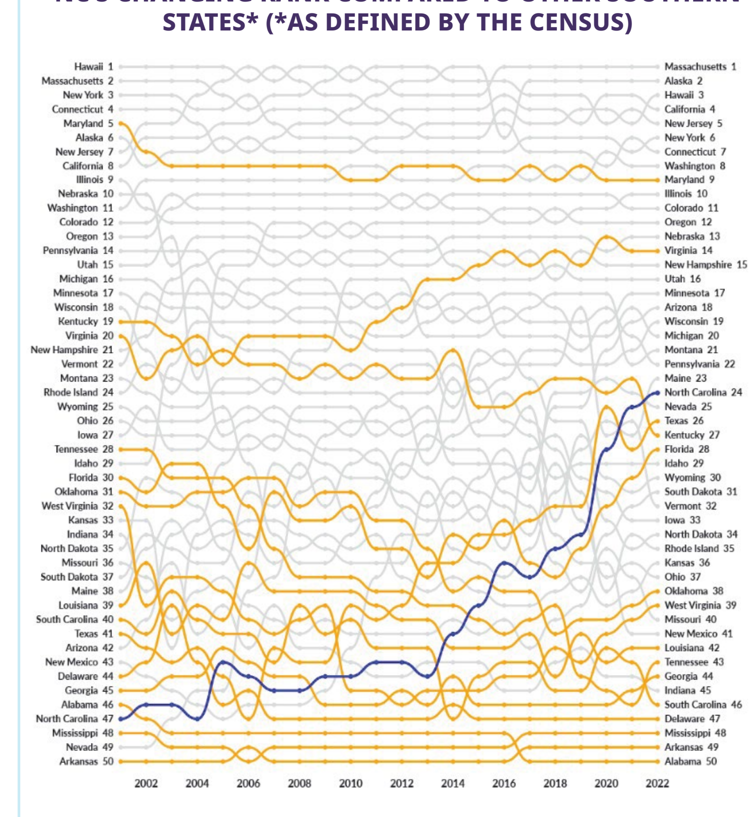
*Source- https://oralhealthnc.org/reducing-the-rate-of-childhood-caries-in-wnc/*

## *Access to Oral Health Care in North Carolina*

North Carolina's commitment to improving oral health is deeply rooted in the state's history of early professionalization of dentistry and efforts to improve access to dental care for its citizens. In 1856, a cohort of dentists convened to advance the field of dentistry, establishing one of the first state dental societies in the nation. Remarkably, this was the sole dental society mandating a dental degree for membership.[27] In 1918, North Carolina took the lead as the first US state to initiate a comprehensive statewide dental health program. North Carolina remains vigilant in monitoring and responding to the dental needs of its residents and has witnessed noticeable strides in general oral health and well-being, especially among children.[11,27] Nevertheless, the state continues to face ongoing challenges, particularly regarding disproportionate distribution of dentists across the state and ensuring that dental services are accessible for those who need them.

North Carolina ranks 32nd in the nation for the percentage of adults who have visited a dentist in the past year, while 13% of North Carolinians have not had a dental visit in five or more years.[28–30] Of the state's 100 counties, 80 are considered rural.[31] The rurality of the state contributes to extended travel time for residents, which can significantly reduce the likelihood of regular dental visits.[32] Over 2 million North Carolinians face challenges in securing adequate dental care, and all 100 North Carolina counties are designated as areas with a shortage of dental health professionals, affecting residents' access to services.[33–35] Over the past 10 years, the state has improved its ranking in dentist-to-population ratio from 47th to 24th in the country.[36] However, most North Carolina dentists are highly concentrated in nine counties; there are five counties, all in the Eastern part of the state, with no practicing dentists at all.[32,36]

### NC'S CHANGING RANK COMPARED TO OTHER SOUTHERN STATES* (*AS DEFINED BY THE CENSUS)




*Source - Sheps Health Workforce NC. The Dentist Workforce in NC: Supply is improving but distribution and diversity remain challenges. Virtual presentation, July 14, 2023.*

While there are barriers to receiving regular, preventive dental care, North Carolina residents who need immediate or urgent dental care face their own set of challenges. The emergency department frequently serves as the primary source of dental care for residents without an established dental home who require immediate care or are uninsured.[11] Emergency departments are not typically equipped to serve as an entry point for oral health care. They seldom connect individuals with oral health providers for urgent or ongoing care. While emergency departments can offer antibiotics and address bleeding, they lack the capacity to repair, replace, or salvage damaged teeth. Nevertheless, in North Carolina, the per capita rate of dental visits to emergency departments is more than twice the national average.[11] Populations more likely to seek dental care through emergency departments include the uninsured, Medicaid beneficiaries, women aged 21–34, and Black adults.[37,38]

### KEY CHALLENGES IN ORAL HEALTH CARE IN NC

- Emergency department dental visits per 10,000 population in NC: **87.8** (more than twice the national rate)
- **13%** of kindergartners have untreated tooth decay.
- **55%** of American Indian and **52%** of Hispanic children (compared to 30% of White children) have untreated tooth decay.
- **21%** of North Carolinians over age 65 have lost all their natural teeth.

*Source- https://oralhealthnc.org/wp-content/uploads/2019/12/Portrait-of-Oral-Health.pdf*

**23%** of low income adults cite inconvenient location or time as a reason not to visit the dentist.

**21%** of middle income adults cite inconvenient location or time as a reason not to visit the dentist.

**31%** of high income adults cite trouble finding a dentist as a reason not to visit the dentist.

*Source- https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/oralhealthwell-being-statefacts/North-Carolina-Oral-Health-Well-Being.pdf*

### PAYING FOR ORAL HEALTH CARE IN NORTH CAROLINA

How North Carolina residents identify, access, and pay for oral health care is dependent on a variety of factors. Some residents have employer-sponsored dental insurance plans that help them pay for dental care, while some access care by paying out of pocket, through the North Carolina Medicaid Oral Health Program, or through sliding-scale and free services available at safety-net clinics.

#### Employer-Sponsored Dental Insurance

Miriam has an employer-sponsored PPO insurance plan that she can customize to cover herself and her two children. She pays a 20% copay for all her visits to her in-network dentist, which are normally $25, and has a monthly premium of $78. She receives two exams and cleanings per year under her plan and has a maximum amount of $2,000 that she can use toward procedures until she must pay for them out of pocket. She receives bills in the mail for any additional costs.

#### Private Insurance Plan

Kai has a private dental insurance plan. He pays a monthly premium of $125 and has a deductible of $15. Kai went online to find a plan that covered his area. He doesn't have any kids, so he selected a plan without orthodontics. His plan covers 100% of preventive care, 50% of basic services like extractions, and 10% of major services like dentures and crowns. Kai goes for a cleaning twice a year. He saves money by going in-network and covers any additional costs not covered by his insurer.

#### NC Medicaid

Henrique meets the eligibility requirements for NC Medicaid and has access to comprehensive dental benefits. North Carolina considers dental care to be medically necessary and it is included in his coverage. He goes to a dentist that accepts Medicaid patients and receives preventive care including exams, cleanings, and X-rays. NC Medicaid is a low- or no-cost program and covers the cost for most services. Henrique does not have to pay any monthly premiums. His highest copay is $4 and is only needed for some services.

## A Vision for Providers

We envision a future in which ***oral health care providers, including and specifically those serving Medicaid patients, work within a system of high-quality, cost-effective care that is seamlessly integrated, with a wholistic approach that fosters collaboration among health and social care teams.*** This future empowers providers through trust, support, and streamlined processes, ensuring culturally attuned care, efficient operations, and continuous professional growth.

**Key Elements of the Vision:**

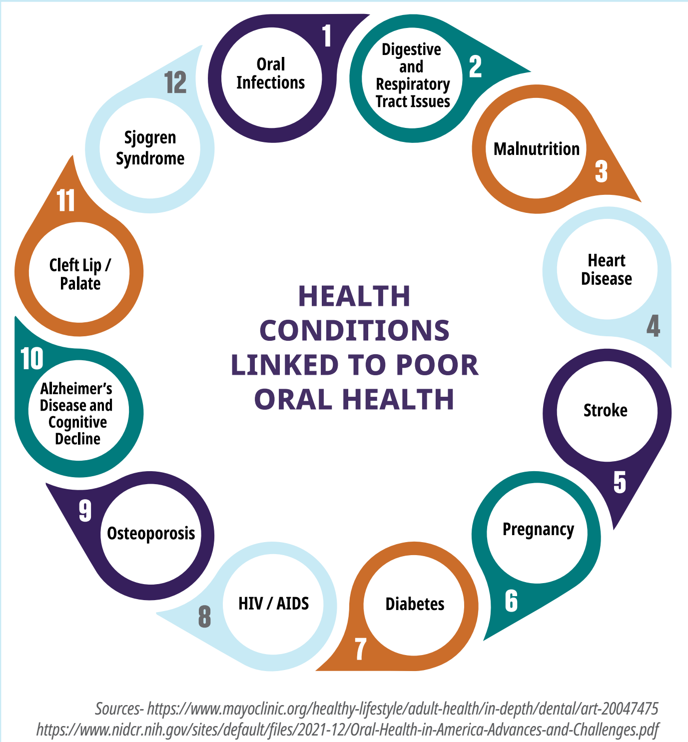
- **Consistent Delivery of High-Quality, Cost-Effective Services:** Members of the oral health team—to include dentists, dental hygienists, dental assistants, and administrative staff—work together to consistently deliver high-quality, cost-effective oral health services, ensuring optimal care.
- **Collaboration within the Patient's Health Care Team:** Providers work closely with a patient's health care team to support not only oral health but also the overall well-being of the individual.
- **Feasible and Trustworthy Performance Metrics:** A feasible, stable, and trusted performance measurement system is implemented to provide meaningful insights to providers regarding patient experiences and performance relative to peers, fostering continuous improvement.
- **Culturally Attuned Care:** Providers are supported in delivering culturally attuned care that respects and incorporates diverse cultural backgrounds and preferences.
- **Streamlined Administrative Processes:** Providers operate within a streamlined and effective system to reduce administrative burden.
- **Multidisciplinary Team Support:** Dentists can employ or access a team to provide comprehensive oral health care, education, care management, language interpretation, translation, and navigation services.
- **Equitable Services in Underserved Areas:** Financially adequate payment structures support providers and an equitably distributed workforce to ensure high-quality services are accessible in all regions, particularly rural and underserved areas.
- **Efficient Documentation and Information Access:** Providers can conveniently document and access patient information to support clinic- and population-level improvements in care delivery.
- **Ongoing Professional Development:** Providers collaborate and are engaged in well-designed, ongoing educational and professional development opportunities to enhance performance, expand knowledge, and develop new skills.
- **Robust Interdisciplinary Network:** Providers work within a robust interdisciplinary network that includes non-clinical peers to provide technical support and collegial collaboration for continuous improvement.

## Disparities and the Oral Health Workforce

The key elements of the future vision for oral health providers in North Carolina seek to support a thriving oral health workforce that bolsters overall access to oral health care. More specific strategies regarding workforce development and provider support are addressed in future chapters of this report. The oral health workforce is central to both addressing and potentially exacerbating health disparities, which often stem from a shortage of oral health care professionals, particularly in underserved communities. In many regions, there is a maldistribution of dentists, dental hygienists, dental assistants, and other oral health professionals, with urban areas typically having better access to care compared to rural or economically disadvantaged areas. This shortage can result in longer wait times for appointments, limited availability of services, and ultimately poorer oral health outcomes for those who cannot easily access care.

The composition of the oral health workforce can also influence disparities. Racial and ethnic minorities, as well as individuals from lower socioeconomic backgrounds, are underrepresented in the dental profession. This lack of diversity can lead to cultural and linguistic barriers that impede effective communication and trust between patients and providers. By strengthening the oral health workforce and addressing disparities in access to care, we can work toward achieving equitable oral health outcomes for all populations.

Across the United States, the largest disparities in oral disease are linked to income and race/ethnicity.[5] This is also true in North Carolina where individuals with low incomes, individuals living in rural areas, and people of color are more likely to experience a dental disease, such as cavities and gum disease.[11] Increased prevalence among these populations is linked to systemic access barriers such as lack of dental insurance. With 87 of North Carolina's 100 counties designated as Dental Health Provider Shortage Areas, geographic barriers also limit access.[39] Limited or non-existent ability to receive preventive treatment leaves individuals at a higher risk of negative dental outcomes.[40] Without the means to access oral health care from childhood, North Carolinians with low incomes often don't receive preventive treatment early on, leaving them at higher risk of negative outcomes later in life. Barriers to care often persist even after individuals obtain dental insurance.[40] Difficulty taking time off work due to child care needs, employment, or extended travel times for rural residents are examples of barriers that exacerbate limited access to dental care.



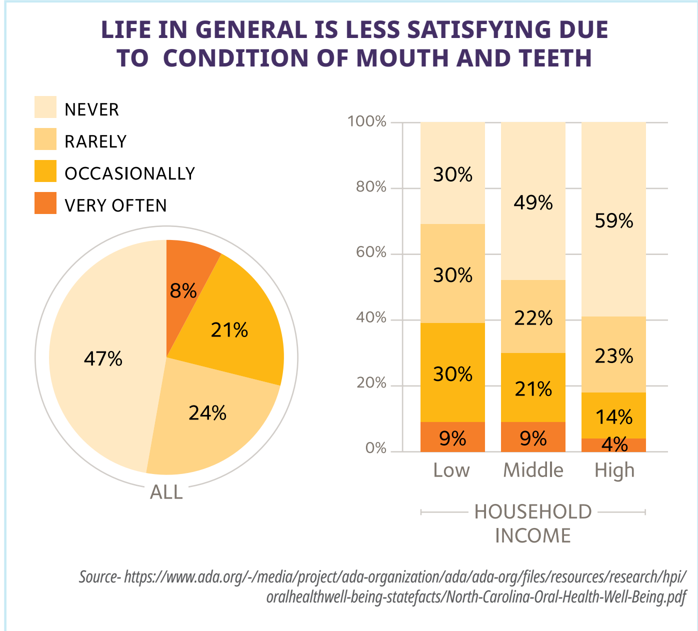

*Sources- https://www.mayoclinic.org/healthy-lifestyle/adult-health/in-depth/dental/art-20047475 https://www.nidcr.nih.gov/sites/default/files/2021-12/Oral-Health-in-America-Advances-and-Challenges.pdf*

Poor oral health also carries significant social implications. In the United States, approximately 18% of adults reported that their ability to interview for jobs was negatively impacted by the appearance of their teeth.[41] This percentage increases to 29% for people with low incomes. Additional studies suggest that the appearance of teeth has potential to shape perceptions regarding intelligence, honesty, and leadership capabilities.[5] Notably, one out of every five adults in North Carolina refrains from smiling due to oral concerns.[42] 15% report anxiety stemming from the condition of their teeth. Moreover, 30% of low-income adults in North Carolina limit engagement in social activities due to the condition of their teeth or mouth issues.[42]

### RISK FACTORS FOR DEVELOPING ORAL DISEASES

- Diabetes
- Tobacco use
- Alcohol use
- Opioid use
- Diets high in sugar
- Disabilities that make oral hygiene and dental visits challenging
- Medications that reduce saliva
- Exposure to HPV

*Sources- https://www.who.int/news-room/fact-sheets/detail/oral-health https://www.nidcr.nih.gov/sites/default/files/2021-12/Oral-Health-in-America-Advances-and-Challenges.pdf*

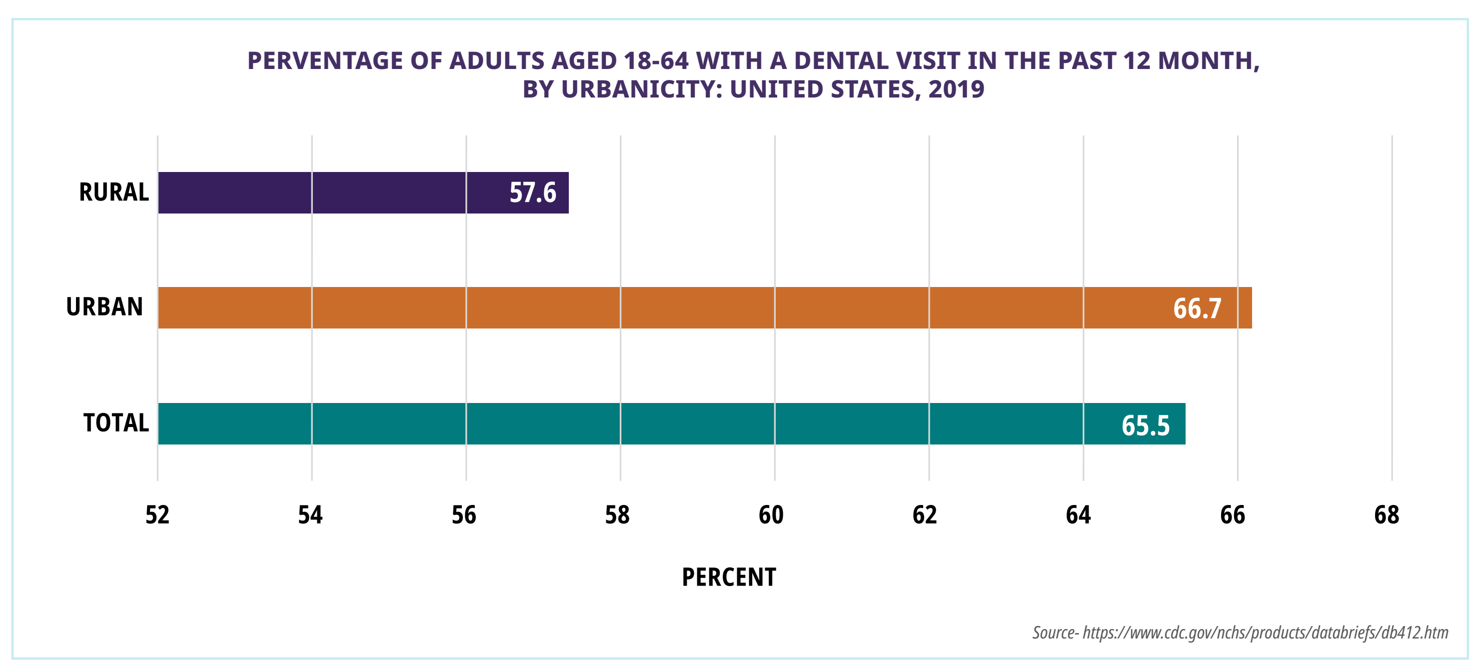



*Source- https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/oralhealthwell-being-statefacts/North-Carolina-Oral-Health-Well-Being.pdf*

In the United States, more than 69% of Mexican American adolescents (aged 12–19 years) have experienced dental cavities, higher than the rate among non-Hispanic White adolescents, who averaged 57%.[5] Cavity rates remain highest among adolescents who live in poverty, with the highest rates in American Indian/Alaska Native adolescents.[5] Three times more AI/AN children have untreated tooth decay than White children, and 68% of AI/AN adults aged 35–44 have tooth decay, more than twice the rate of all other ethnic/race groups in the United States. Risk factors for these conditions include lack of access to routine care and lack of oral health education.[43] An estimated one-third of AI/AN adults reported being unable to visit a dental provider since the pandemic, compared to 18.4% of adults in other race/ethnic groups.[44] Nearly a quarter of AI/AN adults reported transportation issues as the cause of their delay or failure to access care.

Across the United States, in addition to higher rates of poverty, rural populations tend to have lower rates of dental insurance, lower rates of utilization of dental services, and fewer dentists per population.[11] Rural counties have higher percentages of people with tooth loss when compared to urban areas, and rural children are less likely to receive preventive dental care.[45] Public transportation systems are often limited or non-existent in rural areas, causing low-income rural residents to have difficulty traveling to a dentist.[45] In addition to limited access to dental services, rural residents also often experience disparities in the type of dental services they receive; for instance, they are more likely to have visits only for restorative care or tooth extraction.[46]

Lack of access to dental care can also result in the overuse of hospital emergency rooms.[5] Patients who have health insurance may lack dental insurance. This may lead to patients seeking dental care in hospital emergency departments, which yields an annual cost of nearly $2 billion.[47] The number of emergency room visits for preventable dental conditions is also rising.[48] Structural components of the dental care system affect patients' ability to access routine dental care and often result in high out-of-pocket costs for many of the populations described above.



### *Integration of Dental and Medical Practice*

The seamless integration of oral health into North Carolina's health care system facilitates the task force vision of a future in which oral health professionals can work collaboratively with other health care professionals. The historical division of training, service delivery, and financing between dentistry and medical care has led to differences in reimbursement structures, access to services, and health outcomes.[49] Several health care reform measures have reinforced this separation. For example, under the Affordable Care Act, dental care for adults was not considered an essential health benefit. This system fragmentation can lead to compromised referrals from physicians due to separate insurance systems.[47]

***"Dentistry must be viewed and practiced as an important part of providing good overall healthcare. Dentistry, like mental health, has traditionally been viewed as a separate issue. The importance of mental health has recently been talked about more openly and as a result significant system changes and funding have been directed that way. It is time for dental health to get that attention and support as well."***

***– Steve Cline, Vice President, North Carolina Oral Health Collaborative***

The continued separation of medicine and dentistry affects how services are paid for, the training clinicians receive, and where practices are located. The fragmentation of health care systems contributes to poor health outcomes, increases patient and provider dissatisfaction, and supports an ineffective reimbursement system.[50]

Benefits of bridging the divide between dental and medical care include improvement of the patient experience through the incorporation of oral health in routine medical evaluations, integrated management of chronic conditions, and streamlined electronic health record systems to allow the sharing of health information.[47] Integration between medical and dental care has proven successful, particularly for diabetes and hypertension prevention and management, prenatal care, and for those living with HIV.[50]

Even when dental care is accessible, preventive care is not always emphasized or affordable. Oral health care interventions are not often adequately aligned with oral health needs. Dental care is often treatment-focused and interventionist rather than preventive; this approach is not suitable for all population groups due to workforce limitations and cost.[51] Dental care consistently presents the highest financial barrier of any health service in the United States.[5]

Having dental insurance, whether public or private, has been shown to improve access to dental care among adults. The affordability of oral health care services can be an issue for low-income and marginalized populations. The often-high out-of-pocket costs for oral health services can have a negative impact on individuals' economic circumstances.[51] However, insurance coverage alone will not be sufficient to increase access to dental services. Other factors such as an accessible and appropriately staffed dental workforce, emphasis on preventive care, and social support must accompany any improvements to dental-care financing.[5] These barriers can compound difficulties in accessing oral health care.[40]

# 1 TOWARD COMPREHENSIVE WELLNESS: UNITING ORAL HEALTH AND A VISION FOR A PATIENT-CENTERED FUTURE IN NORTH CAROLINA

## *A Vision for North Carolina's Oral Health System*

Our vision for North Carolina's oral health system is a collaborative ecosystem in which North Carolina Medicaid and other state agencies, educational institutions, philanthropic organizations, and diverse thought partners work together to cultivate a wholistic, accountable, and equitable approach to oral health. This future system strengthens community capacity, drives innovation, and prioritizes quality care, fostering a culture of respect, inclusivity, and proactive problem-solving.

### Key Elements of the Vision:

- **Data-Driven Action:** Data are collected, interpreted, and disseminated to inform actions that improve access, quality, and efficiency in oral health care delivery.
- **Accountability Mechanisms:** Accountability mechanisms, such as dashboards or reports, are developed and maintained to provide actionable information for both provider-level and system-level improvements.
- **Community Engagement:** Community connections are actively promoted at local, regional, and state levels, fostering a bottom-up approach to addressing oral health challenges.
- **Diverse and Representative Workforce:** A diverse workforce that reflects communities and patient demographics is recruited and sustained to promote culturally sensitive care.
- **Integrated Care with Social Determinants in Mind:** High standards of care are upheld and account for social determinants of health.
- **Raising Awareness and Value of Oral Health Care:** Communities and the health care system are highly informed and aware of the significance of oral health care in overall health and well-being.
- **Incentivizing and Rewarding Highest-Value Care:** High-value care practices are identified and recognized throughout provider networks, ensuring optimal care delivery.
- **Resource Allocation:** Adequate resources and support from diverse sources are gathered to facilitate the achievement of the shared vision for oral health in North Carolina.
- **Collaborative Partnerships:** Strong partnerships among dental professionals, health care providers, government agencies, nonprofits, and educational institutions are cultivated to collaboratively address oral health challenges and inequities.
- **Supportive System for Providers:** Building a system that supports and respects providers, creating an environment conducive to their professional growth and well-being.
- **Cultural Shift Toward Oral Health:** A cultural and social mindset shift is fostered to recognize oral health as an integral part of overall health and wellness.

## *Building Blocks for a Comprehensive Oral Health Infrastructure*

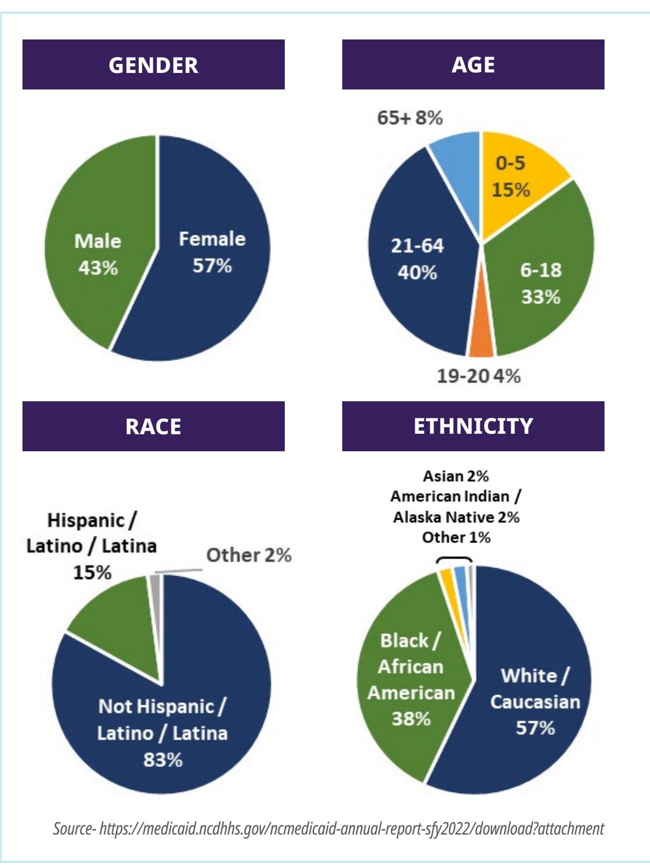
North Carolina's oral health system encompasses a variety of agencies and stakeholders involved in promoting, maintaining, and restoring oral health at individual, community, and population levels. It involves a coordinated network of services, policies, resources, and infrastructure aimed at preventing oral diseases, providing oral health care services, and addressing the oral health needs of diverse populations.

North Carolina Medicaid plays a critical role in ensuring oral health equity. However, the state still faces challenges in comprehensive access to high-quality oral health care for all residents. These challenges extend beyond the abilities of Medicaid and require a coordinated, system-level effort.

This includes the need for thoughtful inclusion strategies to cater to the unique oral health needs of specific groups such as pregnant individuals and historically marginalized communities. Additionally, it is essential to support providers in safety-net settings and emphasize culturally responsive care and population health. Together, these areas create the foundation for building a robust oral health infrastructure that not only addresses immediate access issues but also fosters long-term equity and wellness within North Carolina's diverse communities.

## NC Medicaid Oral Health Program

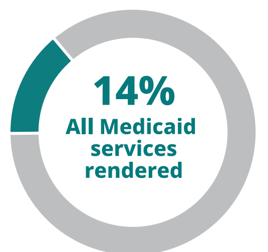
NC Medicaid is a statewide program that provides health coverage to people with low incomes. There are programs available for children, adults, pregnant women, people who are blind, and people with disabilities.[52] As of July 2022, there were 2.9 million North Carolinians enrolled in NC Medicaid; 52% of enrollees were under age 21.[53] However, children are likely to become the minority as the recent expansion of Medicaid allows more adults to enroll in the program.

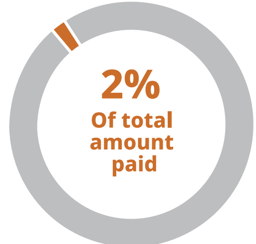



*Source- https://medicaid.ncdhhs.gov/ncmedicaid-annual-report-sfy2022/download?attachment*

NC Medicaid helps pay for certain health care expenses such as medical care, vision care, mental health care, and prescriptions. Covered programs and services also include dental care for all ages and orthodontic care for children. These services include diagnostic, preventive, and corrective procedures intended to treat disease and maintain oral health. As noted earlier in this chapter, while the US Department of Health and Human Services (HHS) requires state Medicaid agencies to cover dental services for people under age 21, states have the option to choose if they will provide dental benefits to adult Medicaid beneficiaries.[54] North Carolina is one of 19 states nationally that offers a comprehensive dental benefit for adults.[55] Some state Medicaid agencies offer no adult dental benefits at all or only offer emergency or limited dental benefits.[17,55] In North Carolina, there is no spending limit for the dental benefit, and it covers preventive and periodontal care, dentures, and oral surgery. Orthodontia is not covered for adults enrolled in NC Medicaid.[56–58]

In 2022, 2,585 dental providers rendered dental services to Medicaid beneficiaries, and dental procedures comprised **14%** of all Medicaid services rendered; around **2%** of the total amount paid to providers serving Medicaid patients was paid to dental providers.[59–61] The NC Medicaid Oral Health Program is a key player in the provision of dental services across the state despite challenges in ensuring availability and access to services for Medicaid beneficiaries.




Dentist participation in Medicaid is low in North Carolina. Currently, only around 40% of the state's dentists accept Medicaid patients.[34,62] Some enrolled Medicaid providers might not accept new patients or may offer care only sporadically to Medicaid beneficiaries, sometimes limiting services to specific age groups or only providing care to these individuals on a limited number of days per month.[32,33] On December 1, 2023, North Carolina launched Medicaid expansion, making over 600,000 North Carolinians newly eligible.[63] Most people are now eligible for Medicaid if they live in North Carolina, are between the ages of 19 and 64, have a qualified immigration status, and meet household income requirements.[64] This expansion grants more North Carolinians access to the dental coverage included with NC Medicaid, and underscores the critical need to ensure that the capacity and adequacy of North Carolina's dental provider network can effectively accommodate the increasing demands of the NC Medicaid beneficiary population. Very early data from Medicaid expansion indicates growth in the number of beneficiaries seeking dental services; the task force identified several strategies by which the state can meet this expanded need, read more about this in **Chapter 2**.

The Into the Mouths of Babes (IMB) program is designed to promote early childhood oral health by training medical professionals to deliver preventive oral health services to young children enrolled in NC Medicaid. The program primarily targets children from birth to age three and a half, offering preventive oral health services, education, guidance to parents and caregivers, and referrals to dental homes. IMB has been recognized as a successful initiative that has served as a model for similar initiatives in other states aiming to increase access to preventive services, reduce tooth decay rates, and improve oral health education.

*Source- https://www.dph.ncdhhs.gov/oralhealth/partners/IMB.htm*

### Pregnancy and Oral Health in North Carolina

Oral health is an important part of prenatal care. Poor oral health during pregnancy may result in adverse outcomes for both the mother and the baby, such as low birthweight or preterm labor. Pregnancy may cause the pregnant adult to be more prone to gum disease and cavities. An estimated 60%–75% of pregnant people have gingivitis, the early stages of gum disease.[65] Racial disparities persist among pregnant people and their oral health as well, with non-Hispanic Black individuals more likely to experience dental problems but less likely to receive dental care during their pregnancies.

In North Carolina, dental benefits are available to low-income pregnant people through the Medicaid for Pregnant Women (MPW) program.[52] The MPW program extends Medicaid eligibility requirements to pregnant individuals with incomes of up to 196% of the federal poverty level (FPL), surpassing the usual threshold of 137%.[66,67] Pregnant individuals from households below 138% FPL are covered under the broader Medicaid program. Prior to 2022, the dental benefits in this program ended 60 days after childbirth. Currently, beneficiaries enrolled in MPW can access dental care and other health care services for 12 months postpartum. This extension helps reduce the potential consequences of dental procedures or treatments initiated during the eligibility period remaining incomplete when the benefits expire.[68,69] Patterns in utilization of dental benefits range across the state, varying in part by region; individuals in non-metropolitan areas utilized these benefits at a lower rate.[70] In 2020, less than half of all pregnant women in North Carolina had their teeth cleaned and only 5.7% of pregnant Medicaid beneficiaries received at least one dental service through Medicaid, down from 6.8% in 2019.[11,52,71,72] Contributing factors to this decline may include limited access to dentists in rural areas of the state.[70] Pregnant people also experience challenges in obtaining benefits through the Indian Health Service in North Carolina. Residents reported experiencing barriers to receiving referrals to dentists in non-IHC clinics.[70]

### North Carolina's Dental Safety Net

Safety net dental Clinics are nonprofit clinics that provide dental care for families and individuals with low incomes.[11,73] The dental safety net program in North Carolina faces the challenge of providing quality care within severe budget constraints. The system is not uniformly available throughout the state, and funding is often transient, making sustainability of these programs challenging.[11] There are currently an estimated 151 safety-net dental access points in the state, including local health departments, Federally Qualified Health Centers, free clinics, and mobile dental clinics.[11,73] The majority of these access points are unable to offer restorative services such as crowns, dentures, or orthodontics. Services are often limited to specific populations, only providing care for children and/or pregnant people. School-based programs, also a part of the dental safety net, are serviced by dental hygienists and provide oral health screenings, education, and preventive services. Students who need additional care are typically referred to the closest dentist.

### Barriers to Culturally Responsive Care

North Carolina's diversity is growing.[74] People from around the world are moving to our state, making it ever more important to provide culturally and linguistically appropriate care. Nearly 1 million North Carolinians speak a language other than English as their primary language.[40] In a dentist's office, this presents barriers to effective communication between the provider and the patient. There are often few solutions available, due in part to limited provider time and limited plain-language patient education materials.[75] Safety-net facilities also often provide services for undocumented individuals in our state, and language difficulties can often be a challenge to providing optimal care for this population.

All providers that receive federal funds for the provision of Medicaid services are obligated to make language services available to those with limited English proficiency (LEP) under Title VI of the Civil Rights Act and Section 504 of the Rehab Act of 1973.[76] Additionally, section 1557 of the Affordable Care Act requires that dental practices take reasonable steps to ensure meaningful access to individuals with LEP. While Medicaid programs in many states reimburse providers for the cost of language services, North Carolina does not. Constrained resources and lack of reimbursement for costs associated with these services make it difficult for practices to offer language assistance or translation of written consent to their patients. When proper communication is not offered, patients are more likely to have unsatisfactory experiences and could experience serious health complications, which can prevent them from returning to their dental providers.[77] Research provides evidence that the use of professional interpreters reduces disparities and improves clinical outcomes among patients with limited English proficiency.[78]

### Population Health to Support Positive Oral Health Outcomes

Population health measures to improve dental outcomes, such as fluoridated water, have been shown to be effective.[79] However, in 2022, more than 12% of the population in North Carolina did not have access to fluoridated water and another 85% had water that was not considered optimally fluoridated by the Centers for Disease Control and Prevention.[80] Fluoride protects teeth from decay by rebuilding and strengthening a tooth's enamel, which helps stop cavities from forming.[80] Limited access is more prevalent in the Western part of state, where people are also more likely to suffer from oral health complications.[81] North Carolina is not among the states that mandate fluoridation.[82]

This task force vision for the future of oral health in North Carolina holds promise for the health care system, providers, and most importantly patients. Placing patients at the heart of oral health care delivery means providing personalized, timely, and accessible services tailored to individual needs. For providers, this vision promises a more cohesive and integrated care model, fostering an environment where they can deliver high-quality care while being supported, respected, and empowered within the system.

In communicating this vision, this report seeks to pave the way for a health care system in North Carolina that wholistically addresses individual and community health needs. The forthcoming policy recommendations aim to support this vision by focusing on the future while also taking small, practical steps to improve delivery of care. These strategies are designed to gradually break down barriers, promote equity, and integrate oral health seamlessly into the broader health care landscape, solidifying the principle that oral health both contributes to and is impacted by overall health and well-being.

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2

# CHAPTER TWO

## Payment and Benefit Design: Improving Access and Patient Experience

North Carolina has made huge strides in improving the oral health of its population over the past few decades.[1] However, disparities in oral health outcomes and access to oral health care persist, particularly for the state's low-income residents. This is because one of the foremost barriers in access to and utilization of the oral health care system across the country is the inability to afford oral health services. As highlighted in the NC Oral Health Collaborative's 2019 *Portrait of Oral Health in North Carolina*, "the current U.S. health care system is structured such that a person's ability to access care is largely determined by their ability to pay."[1] This is acutely felt by individuals seeking dental care regardless of insurance status, as out-of-pocket spending accounts for a much greater proportion of total dental expenditures than it does for total health expenditures. "Dental care has the highest level of financial barriers compared to any other health care service."[2] In 2019, 42% of total US spending on dental care was out of pocket, compared to 8% of total physician and clinical expenditures.[3] As such, the current structure of the oral health care system and its payment and benefit design make socioeconomic disparities inevitable. This represents a public health problem that negatively impacts the oral health of millions of people in the state.

When North Carolinians are unable to obtain dental care due to financial barriers, they do not receive the interventions needed to maintain good oral health. These individuals do not receive the periodic screening services necessary for early diagnosis of oral health conditions, nor do they receive timely treatment that can manage or stop disease progression. Thus, they may experience new and/or worsening dental disease states that negatively impact their systemic health and quality of life and increase their need for even more invasive and expensive oral health services over time. This results in dental disease becoming increasingly concentrated among low-income individuals.[4] Increasing North Carolinians' access to high-quality, whole-person oral health care is vital to ensuring the health of our state's population. This will require improving dental services payment and benefits design to remove financial barriers to care, especially with respect to public dental insurance under the NC Medicaid Program.

## *Dental Insurance and Access to Care*

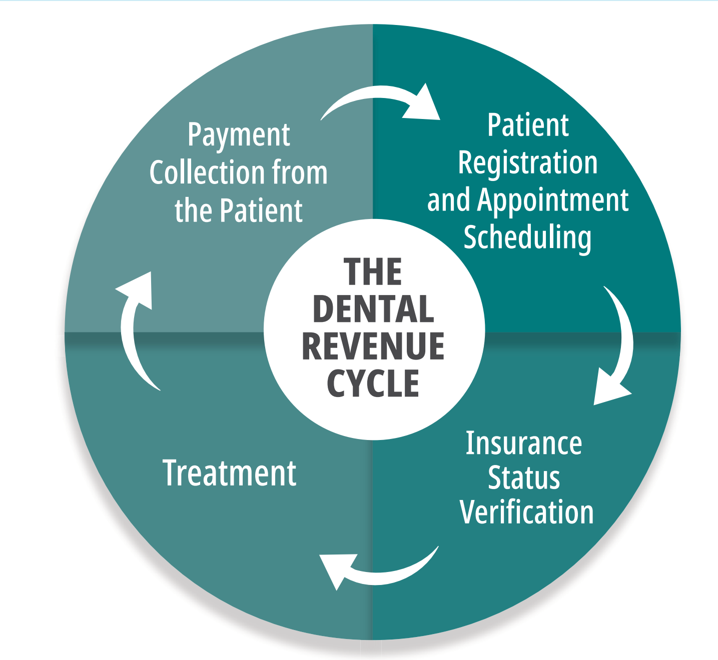
The mission of dental offices across the state of North Carolina to serve their communities and improve the oral health of their patient populations is increasingly accompanied by a dental practice philosophy that emphasizes high-quality, whole-person, patient-centered care. Dental professionals' ambitions of providing the best possible care for diverse patient populations must contend with the fact that health care is a commodity in the United States and thus dental offices must operate as businesses. They must prioritize their financial success to maintain and enhance their operations and allow their providers and staff to continue providing care to their communities. Dental offices face very high costs of operation with personnel, facility, and clinical expenses to manage. As a result, offices must set their dental services fees at a certain level to remain financially solvent. Unfortunately, even market-average dental fees tend to result in out-of-pocket expenses that are cost-prohibitive for many North Carolinians, even if they have dental insurance.

Based on the economic realities described above, dental practices are in a constant struggle to balance their aims of serving the public while ensuring their own financial sustainability. This contention creates the need for systems that help facilitate billing, payment, and cost-sharing among the different parties of the oral health care system. The process of handling insurance ties all of these systems together, creating relationships that feature both incentives and disincentives for improving access and quality of care. There are opportunities to bring these dynamics into better alignment with the state public health goal of increasing access to oral health care and improving oral health outcomes for all North Carolinians.

## *The Dental Revenue Cycle*

To explore payment and benefit design in North Carolina, it is essential to understand the basics of the dental revenue cycle. The revenue cycle varies slightly depending on practice settings and patient insurance coverage. However, the basics are as follows:

Ideally, a patient's account is returned to a zero balance through a combination of the above payment processes after each appointment. This table depicts the added complexity that comes with insurance billing, which creates an additional administrative burden for dental practices that choose to accept it.




The dental revenue cycle varies significantly based on insurance status, with insured patients typically experiencing smoother billing processes and reduced out-of-pocket expenses compared to uninsured individuals. Insurance coverage often streamlines administrative tasks and alleviates financial burdens, shaping a more seamless and affordable dental care journey for those with coverage

## Patient Registration and Appointment Scheduling

When establishing a relationship with a new patient, and prior to scheduling each dental appointment, dental offices request and verify the patient's insurance information to make sure it is correct and active to cover the patient's treatment.

## Insurance Status Verification

### Insured

The portion of fees to be paid by the patient versus the dental insurance entity is pre-determined within the insurance plan policy purchased by the patient. These policies are often complex, and patients often have limited understanding of their own dental benefits. Thus, dental offices that bill insurance must invest in additional staffing and administrative resources to effectively navigate these processes. This includes staying up to date on ever-changing billing codes, payer rules, regulations, and HIPAA guidelines. Dental offices will often decide whether to accept or not accept certain dental insurances based on a cost-benefit analysis of these factors.

If a patient has dental insurance that is not accepted by the office where they are receiving care, they must pay for everything out of pocket but can request reimbursement from their insurer, which may reimburse the patient for a portion of the service fees after the fact.

### Insurance Pre-Authorization for Treatment

Dental insurance plans only cover certain procedures. Some procedures require pre-authorization to be covered, so offices must request authorization prior to rendering those services.

### Uninsured

The patient is responsible for paying all fees associated with their treatment.

## Treatment

The dental office renders services.

## Payment Collection from the Patient

Dental offices can choose to request payment from patients at check-in or immediately after services are rendered, at check-out. Most offices opt for up-front payment to protect against financial losses due to patients' nonpayment.

### Insured

The patient pays the portion of the service fee they are responsible for under their insurance policy.

### Insurance Claim Processing, Tracking, and Management

The dental office files an insurance claim requesting payment for the portion of the service fee that the insurer is responsible for under the patient's insurance policy. The office must track its claims to ensure these collections are received. Insurers may deny certain claims, at which point the dental office can try to appeal the denial or take the financial loss as a write-off.

### Balance Billing

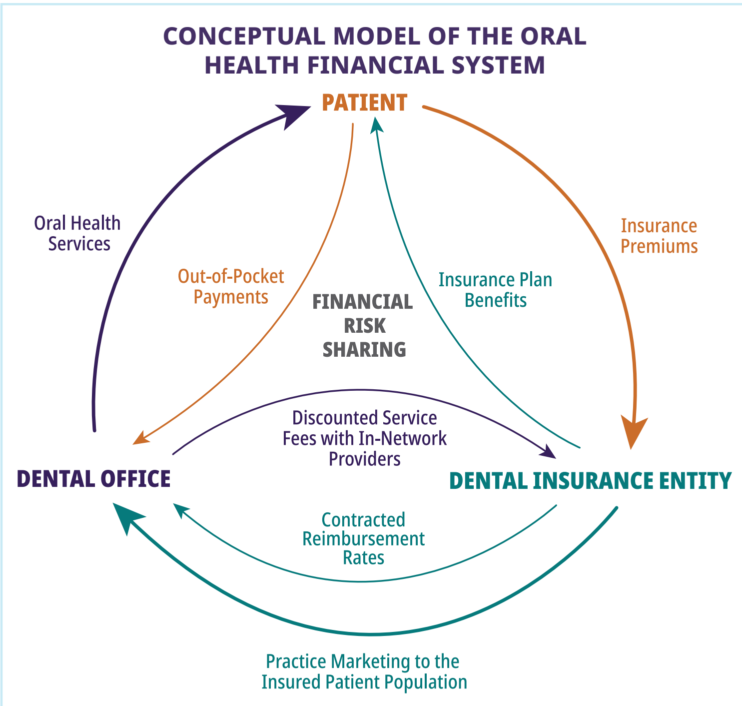
Insurers may pay less than the base fee the dental office has set for a service, leaving an unpaid balance on the patient's account. If a dental office is not in-network with the insurer, the office can simply bill the patient for the remaining balance. However, if the office is in-network with the insurer, it has agreed to accept the pre-negotiated reimbursement rates of that insurer, and therefore cannot bill the patient for the difference and must accept that financial loss in exchange for the benefits of being in-network (usually free promotion and marketing of the practice to patients who have that in-network insurance). Providers are not allowed to "balance bill," or bill for the difference between the provider's charge and the amount allowed under the insurer agreement, under NC Medicaid.

### Uninsured

The patient pays the full fee out of pocket.

## *The Oral Health Delivery System: Financial Risk-Sharing, Payment Models, and Cost Control*

For the oral health system to function and be financially stable, the invested parties should both contribute to and receive benefits from the oral health system as seen in the conceptual diagram below:




The above diagram highlights the importance of financial risk-sharing as a central consideration for the oral health system, and any health system. The unpredictable nature of some health conditions and the high costs of treating them create financial uncertainty for health systems and the populations they serve. Some dental practices offer free care or sliding-fee scales to help equitably distribute cost across patients based on their socioeconomic status; this method is commonly employed in safety-net dental clinics. However, most dental care in North Carolina is provided in private dental practices where private dental insurance is the most common means of managing financial uncertainty. Insurance manages financial risk by exchanging participants' periodic payments of known small amounts for the insurer's agreement to assume the risk of paying some portion of fees in the event a participant incurs a larger expense. At the macro level, insurance entities facilitate financial risk-sharing via a variety of health service payment models; each one shifts the financial risk of service expenses to different parties in the system and incorporates incentives and disincentives for its participants.

## *Dental Insurance Payment Models*

**Fee-for-Service Payment Models**

Traditional indemnity plan fee-for-service models prevailed in the past, when dental practices set their own service fees and insurance reimbursed a set portion of those fees. This model had the benefit of allowing for autonomy and tailoring of services within dental practices. However, at the system level these models link dental practice revenue to the quantity of services provided and their associated fees. This can encourage productivity within dental practices and/or encourage practices to take on more patients, which can increase access to care. However, this model creates very little incentive for dental practices to optimize their operations to keep procedure costs and fees low. This model also makes no link between practice revenue and care quality, resulting in a lack of recording, reporting, and analysis of quality metrics that could guide decision-making at the systems level.

Preferred Provider Organizations (PPOs) have all the same features of an indemnity plan, bringing with them the same fee-for-service concerns. However, under the PPO model, reimbursement rates are determined by insurance entities with varying opportunities for negotiation. All dentists who contract with PPOs must accept these pre-determined rates for PPO-insured patients. The agreement of in-network providers to accept the insurance reimbursement rate has the potential to drive down costs for patients and insurance companies. Additionally, it gives dentists access to a stable patient population for which they know they will receive reimbursement for their services.

One disadvantage of the PPO model is its limitations on patient choice of provider. PPOs also contribute to losses in dental practice autonomy as there is increasing market pressure for dentists to join PPOs and accept their reimbursement rates rather than be out-of-network and dictate their own fees. Another concern has arisen with the merging and consolidation of dental insurers. A 2021 study sampling provider reimbursement data from the American Dental Association (ADA) found that reimbursement for dental services responds to changes in commercial dental insurance consolidation and provider consolidation in the form of group practices or dental service organizations (DSOs).[5] The study concluded that because provider markets are substantially less concentrated than insurance markets, it is often easier for insurers to lower reimbursement rates than it is for dentists to raise their prices, which may leave dentists with less leverage for negotiation. With both fixed and variable costs of operating a dental practice on the rise, this pressure is a concern for dental providers and practice owners.

Dental fees under this fee-for-service model are thus limited by market pressures caused by patients and insurance enrollees shopping around for the lowest costs or simply forgoing care when it is unaffordable. However, patient choice is limited by the fact that although health care is treated as a commodity in the United States, it is experienced as a necessity that people cannot easily choose to go without. This reality forces patients

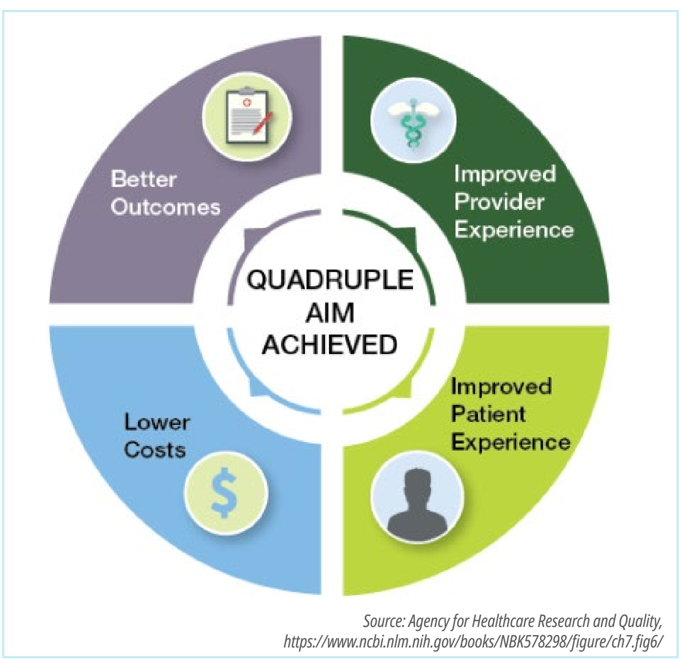
to accept costs they might not otherwise accept in a typical free market. Unfortunately, many North Carolinians, especially adults, do choose to go without dental care, with about a third of adults aged 18 and older reporting not visiting a dentist in 2022.[6] This proportion has remained about the same over the past two decades, representing a glaring care gap resulting from many system variables that impede access, one of which is payment and benefit design. Three of the most common examples of these fee-for-service payment models are described in more depth below:

**Fee-For-Service Payment Models**

| Payment Model | Description |
| --- | --- |
| **Indemnity Plan** | This is "traditional insurance" in which the insurance entity pays claims to dental offices based on the procedures performed. These plans typically reimburse a set percentage of the charges, which usually have maximum allowances for each procedure in the form of usual, customary, and reasonable (UCR) fees. These plans can also take the form of Table or Schedule of Allowance Plans in which a set dollar amount is paid for each procedure type, regardless of what the office fee is. In either case, the patient is required to pay the difference between what the insurance pays and what the dental office charges. |
| **Direct Reimbursement (DR)** | Benefits in these plans are based on the amount of dollars spent by the patient, rather than type of treatment. The patient pays the dentist directly, then submits a paid receipt to the insurance entity, which then reimburses the patient a percentage of the dental care costs. |
| **Preferred Provider Organization (PPO)** | These are indemnity plans with a network of dentists under contract with the insurance company to deliver specified services at discounted rates and according to the provisions of the contract. Contracted dentists must accept the maximum allowable fee as dictated by the plan and in return gain access to the patient population enrolled with that insurance. Non-contracted or out-of-network dentists may have fees higher than the plan allowance and can "balance bill" patients for the difference. Due to this model's ability to facilitate discounted fees and contain costs, it is largely regarded as a combination of fee-for-service and managed care. |

**Managed Care Models**

Health care professionals have become increasingly concerned that fee-for-service models incentivize dental practices to set high fees, overtreat, and opt for the most expensive treatment options to maximize their revenue. To address these concerns, alternative payment models are being increasingly promoted to bring oral health care systems closer to the Quadruple Aim of lowering costs while improving patient experience, provider experience, and health outcomes. This has prompted increasing interest in managed care, which "covers a broad spectrum of activities including but not limited to greater integration of quad-function healthcare delivery (financiers, insurers, providers, and payers), cost containment by limiting unnecessary utilization, limited fee-for-service, sharing of risk with providers, financial incentives to providers, accountability for plan performance".[7] At the national level, this has largely taken the form of capitation plans administered by managed care organizations.[8]




*Source: Agency for Healthcare Research and Quality, https://www.ncbi.nlm.nih.gov/books/NBK578298/figure/ch7.fig6/*

Capitation plans operate outside of the fee-for-service framework and are becoming increasingly appealing to insurance entities looking to control costs. For oral health care, this payment model functions much like a pre-paid dental services membership in which dentists are paid a monthly rate for each enrollee assigned to them. With pre-paid revenue based on patient volume, participating dental practices must use their resources judiciously to ensure their own financial success. This disconnects dental practice revenue from the quantity and cost of services provided and associates it with number of patients who receive quality dental care with good oral health outcomes. The more patients a practice takes on, the more revenue they get. The more of those patients they can keep healthy, the less of that pre-paid revenue they use in dental services and the more the dental practice gets to keep as profit. This model increases the amount of financial risk-sharing by dental practices. Although yet to be widely implemented, this model disincentivizes overtreatment and costly procedures and encourages cost-effective, evidence-based practices for better population-level outcomes through financial incentives for practices that meet quality metric goals; i.e., value-based care.

Some disadvantages of the capitation model are that, like the PPO model, it limits patient choice of provider, it can incentivize undertreatment, and it can increase practice management and financial burdens for dental practice owners and providers as they operationalize cost-effectiveness. Managed care can also prove hard to adapt to practices that serve patient populations with extensive dental service needs, like state Medicaid program beneficiary populations. Such populations require longer

appointment times, care coordination, and social support services for whole-person care. This entails time, labor, and administrative investments by dental practices that go largely uncompensated under current insurance payment and benefit design, resulting in increased financial strain for practices that treat these populations.

The table below outlines the two most common managed care payment models:

**Managed Care Payment Models**

| Payment Model | Description |
| --- | --- |
| Capitation Plan | In these plans, contracted dental providers are pre-paid a certain monthly amount for each patient that has been assigned to them. In exchange for this pre-payment, they must provide certain contracted services at no cost or reduced cost to those patients. There is usually no reimbursement for individual services, so patients must receive treatment at contracted offices to use their insurance benefits. These plans can be administered separately by Dental Health Managed Care Organizations (DMCOs)—usually Dental Health Maintenance Organizations (DHMOs) —or added to the medical benefits covered by Managed Care Organizations (MCOs) —usually Health Maintenance Organizations (HMOs). |
| Point-of-Service Plan | These plans are like a combination of a PPO and a capitation plan in which patients can choose to use their benefits to seek treatment from out-of-network providers. These plans usually have reimbursement based on a Table of Allowances, with fewer benefits and lower reimbursement than if the patient selected an in-network provider. |

Given that implementation of managed care is still relatively new, there is limited evidence for its success in accomplishing the Quadruple Aim of lowering costs while improving patient experience, provider experience, and health outcomes. Proponents of managed care hope that private insurers will be more effective at delivering high-quality care than their public payer counterparts, in turn reducing the cost of care and improving state budget predictability, than direct state administered fee-for-service modalities. While there have been some successes at the state level, research evaluating managed-care programs across various components of health care shows mixed results. A 2020 systematic review of Medicaid managed care at the national level found that there have been improvements in the empirical evaluation of managed-care programs administering benefits to high-risk patient groups.[9] It concluded that studies from different states and on different high-risk populations have shown that quality of care can improve under managed care, but there are still substantial confounding variables and caveats to drawing generalized conclusions on the impact of managed care. The review cited heterogeneity across state programs and lack of Healthcare Effectiveness Data and Information Set (HEDIS) measures to evaluate quality improvement as reasons for this. Further research is needed to identify best practices in managing the care of Medicaid beneficiaries.[9] Refer to page 41 for more information on Medicaid managed care.

### *Medical-Dental Insurance Segregation*

While medical insurance typically takes significant responsibility for covering patients' overall expenses, oral health care is not covered by most medical insurance and stand-alone dental insurance is very different from medical insurance by design. While medical insurance aims to cover unexpected costly procedures, dental insurance aims to cover routine preventive care and disincentivize costly procedures. To understand why these differences exist, we must consider the origins of medicine and dentistry in the United States.

In an accident of history, the medical and dental professions evolved separately, developing their own distinct infrastructure for education, practice, care delivery, and payment models.[10,11] This essentially operationalized the separation of the oral cavity from the rest of the body within the health care system, and this separation extended into insurance policy. Medical insurance arose in the 1930s from employment-based group funding for unexpected excessive medical expenses. These initial plans were designed to foster cost-sharing to cover expensive procedures needed for catastrophic health conditions. Dental insurance came later, in the 1950s, as pre-paid dental plans offered through labor unions to attract workers.

***In contrast to medical insurance, dental plans were designed to cover routine comprehensive preventive care and disincentivize expensive services. This resulted in a cultural shift in which medical insurance became largely regarded as a necessity, while dental insurance was seen as supplementary or a privilege. This widened the separation of oral health from overall health and destined oral health care to be perceived as subordinate and less essential relative to medicine. This has had many implications for the overall health care system and population health outcomes, which will be discussed further in the next chapter.***

The evolution of dental insurance independently from medical insurance has produced the private dental plans of today, which work best for individuals who already have good oral health by covering routine preventive services. However, these plans may cover only some of the many procedures offered by dental professionals. They often provide less cost-sharing for more expensive procedures, limiting the number of financially viable treatment options available to patients from lower socioeconomic backgrounds who depend on insurance to access care. Dental plans also have annual coverage maximums that can easily be met within just a few appointments. Once met, these maximums require patients to pay completely out of pocket for any additional procedures or wait until the next year to resume care. These features of dental insurance can hinder access to care, treatment planning decisions, timeliness of care, and care continuity. The result is that private dental insurance plans typically do not adequately support low-income patients who have severe dental disease and extensive oral health care needs.

Medical insurance faces its own challenges in supporting health care expenses at the population level, as seen in the amount of medical debt currently being experienced across the United States (41% of US adults in 2020) even among patients with medical insurance.[12,13] However, a study using 2014 National Health Interview Survey data found that, regardless of age, income level, and type of insurance, more people reported financial barriers to dental care compared to any other type of health care. If dental insurance were more analogous to medical insurance, participants might have coverage that is more comprehensive and covers larger portions of the more expensive procedures. For example, there would be no annual maximum benefit amounts, as these were banned from medical insurance by the Affordable Care Act as of 2010. There would also be limits on how much participants could be asked to pay out-of-pocket each year, beyond which their insurance would cover all other expenses. If these features of medical insurance also existed in dental insurance, they would have direct impacts on access to care for insured patients as well as reimbursement for dental providers. These policy differences between dental and medical insurance should be considered if oral health is to be treated as a valued component of whole-person health.

### *The NC Medicaid Dental Program: Patient and Provider Experiences*

The separation of oral health from overall health has been carried over into public health insurance policy. Medicaid, which primarily covers eligible low-income adults, children, pregnant women, older adults, and people with disabilities, is only federally mandated to cover dental care for children up to age 21. "Services for adults, including pregnant women, are optional. Currently, 39 states and Washington, DC provide coverage beyond emergency dental services and all states offer dental services for pregnancy-related Medicaid coverage."[14] In the past, for adult dental procedures to be covered under Medicaid, they must have been considered a "medical necessity" based on criteria set forth by each individual state. The definition of "medical necessity" varied widely from state to state, with most only covering emergency dental services to relieve pain. Having "medical necessity" written into insurance policy as the litmus test for whether a dental procedure should or should not be covered exemplifies the historical perception of oral health care as elective rather than a necessity that is of equal importance to other forms of health care. Many oral health professional stakeholders preferred in the past to keep dentistry's service delivery models separate, autonomous, and tailored to the unique characteristics of dental practice. Many advocated for dental services to be carved out when NC Medicaid transitioned from fee-for-service to managed care and shifted state administrative duties to managed care organizations. As a result, when the managed care transition took effect in 2021, dental services remained under NC Medicaid Direct coverage, which continues to operate in the original fee-for-service modality. While medical facilities and providers will be increasingly rewarded for quality, cost-effective, patient-centered care under Medicaid managed care, the quantity-based revenue challenges of the fee-for-service payment model will persist within the dental realm.

The separation of dental practice and oral health services from medicine and public insurance is coming under increasing scrutiny as many in the field look for innovative ways to increase access to care. Despite being a carved-out service, NC Medicaid Direct features some of the most robust adult Medicaid dental coverage in the country.[15] North Carolina is one of only 25 states that cover extensive comprehensive dental services, including more than 100 ADA-approved diagnostic, preventive, and minor or major restorative procedures with per-person annual expenditure limits at or above $1,000.[14] Moreover, recent Medicaid expansion in the state represents another step toward the goal of meeting the essential oral health care needs of all North Carolinians.

Despite being a leader in scope of coverage, the NC Medicaid dental program faces many challenges in creating meaningful access for its beneficiaries. State Medicaid programs across the country face limitations due to lack of available funding, lack of provider participation, lack of beneficiary participation, administrative burden on providers, difficulty coordinating with other state agencies, and lack of CMS approval for state initiatives.[16] Improvements in payment and benefit design are likely to impact administrative burdens, beneficiary participation, and provider participation most directly.

Based on a Division of Health Benefits paid claims report, 2,452 individual dentists were the servicing provider on at least one paid claim in state fiscal year 2023. The Dental Board reported that as of the end of 2023 there are approximately 6,100 active licensed dentists in the state. The NC Medicaid Dental Program has about 40% of active licensed dentists participating in its provider network.[17] Many among this Medicaid workforce feel a strong commitment to serving vulnerable populations. However, if more dental providers are to be recruited to the Medicaid dental workforce, it must be acknowledged that not all dental practices make it their mission to serve underserved or financially disadvantaged communities. Therefore, provider philosophy-driven participation cannot be relied upon to bring the dental workforce to the table.

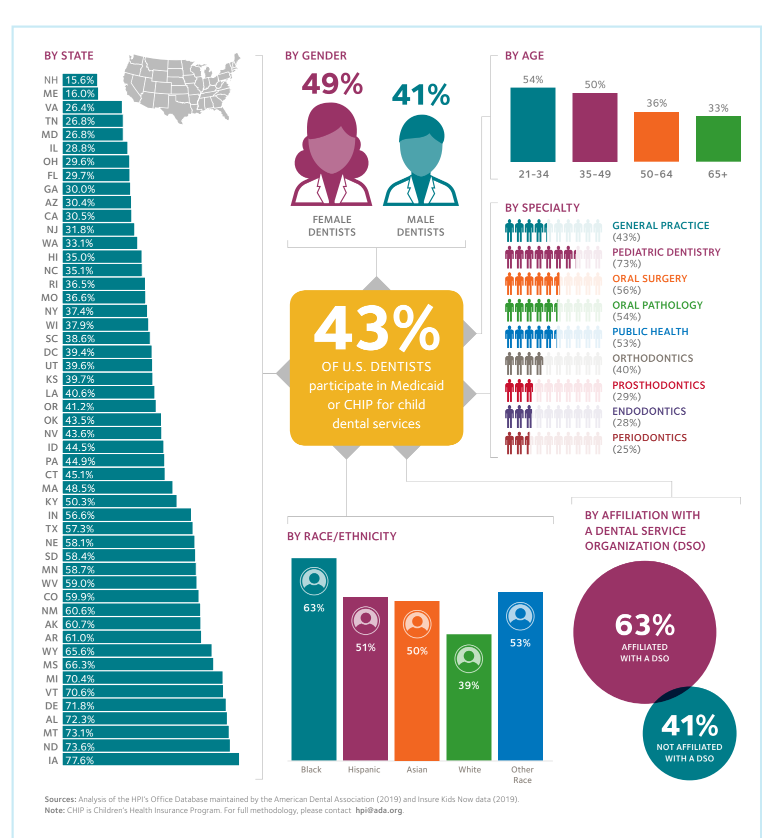
## PAYMENT AND BENEFIT DESIGN: IMPROVING ACCESS AND PATIENT EXPERIENCE

Rendering services to vulnerable populations comes with unique challenges that require financial, labor, and administrative investments to make whole-person, patient-centered care possible. These are not investments that all dental practices feel compelled or have the capacity to make. A valid mechanism by which many private dental practices secure their financial stability is simply refraining from providing long-term non-emergency care to patients who cannot pay for it or doing so very sparingly in the form of occasional charitable free treatment. The doors to such practices are essentially closed to patients without the financial means to pay, further limiting their access to care. If more dental practices are to become Medicaid participants, thereby increasing access for Medicaid beneficiaries, changes must be made to payment and benefit design to level the playing field with respect to provider experience. With 40% of North Carolina dentists participating in Medicaid, there are still many more doors to be opened to grant entry to more of the state's population.[17]

One of the most tangible areas for improvement in payment and benefit design is the low reimbursement rates under NC Medicaid compared to dentist fees. The ADA's Health Policy Institute found that in 2022, NC Medicaid reimbursement was on average 37.7% and 40.1% of fees charged by dentists.[18] This represents a downward trend in Medicaid dental reimbursement, as in 2016 the average was 43.6% and 43.7%, respectively.[19] A review of NC Medicaid dental reimbursement rate data from 2008 and 2022 shows that for most dental codes, Medicaid reimbursement rates have seen minimal change, despite the multiple rate changes that took place during this period of time.[20–22] Most of the comparable codes decreased by a few cents to a dollar during that period, with only 18 out of 198 comparable codes seeing increases of between 3% and 15% of their 2008 values. With inflation making dental practice increasingly expensive, participation in Medicaid entails additional financial strain for many providers.

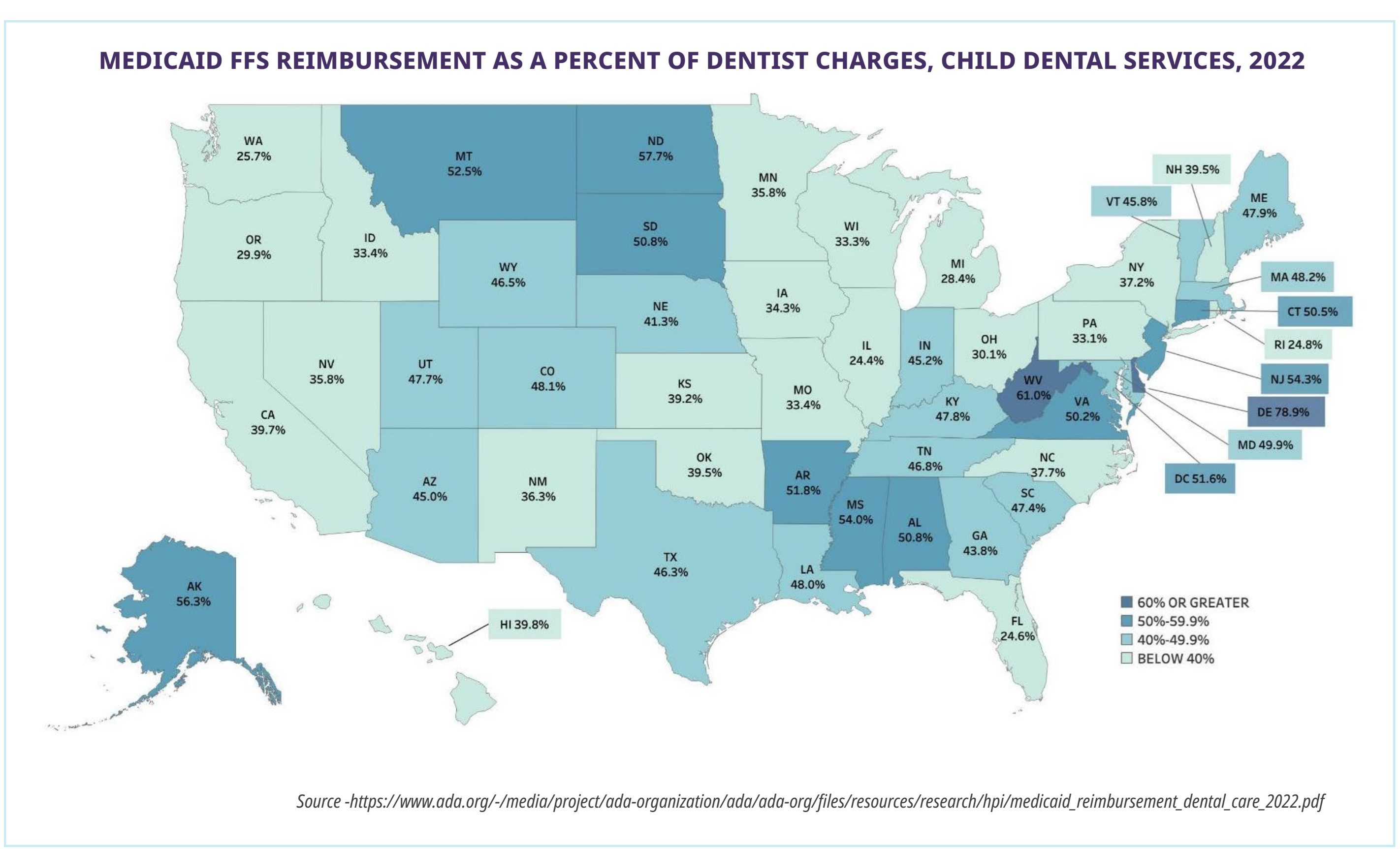
| Procedure | 2008 Medicaid Rate | 2024 Medicaid Rate | Difference | Rates if Kept Up with Inflation |
|---|---|---|---|---|
| Periodic Oral Evaluation of an Established Patient | $27.01 | $26.96 | -$0.05 | $35.59 |
| Bitewings - Four Radiographic Images | $33.60 | $33.55 | -$0.05 | $44.28 |
| Topical Application of Fluoride Varnish | $16.80 | $16.78 | -$0.02 | $22.14 |
| Sealant - Per Tooth | $29.93 | $29.89 | -$0.04 | $39.44 |
| Extraction, Erupted Tooth or Exposed Root (Elevation and/or Forceps Removal) | $66.55 | $66.44 | -$0.11 | $87.70[23] |

In 2016, private dental insurance reimbursement was an average of 86.6% and 82.6% of fees charged by dentists for children and adults, respectively.[19] As such, Medicaid reimbursement was on average 50.3% of private dental insurance reimbursement for children and 52.9% for adults for that year. These numbers increased to 53.7 and 57.5%, respectively, as of 2020.[24] However, this still represents a large gap between NC Medicaid reimbursement and private dental insurance reimbursement. Meaningful participation in Medicaid and serving patients with Medicaid dental benefits entails a significant reduction in revenue for dental providers and practices compared to their peers who choose not to participate. This is clearly not the only determining factor for provider participation, as some states with lower reimbursement rates have higher provider participation, and vice versa.[24,25] However, many dental providers across the country also cite "burdensome administrative requirements, missed appointments, as barriers to participation".[4]




**Sources:** Analysis of the HPI's Office Database maintained by the American Dental Association (2019) and Insure Kids Now data (2019).
**Note:** CHIP is Children's Health Insurance Program. For full methodology, please contact **hpi@ada.org**.

**MEDICAID FFS REIMBURSEMENT AS A PERCENT OF DENTIST CHARGES, CHILD DENTAL SERVICES, 2022**




*Source -https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/medicaid_reimbursement_dental_care_2022.pdf*

In conclusion, while some North Carolinians have the means to pay for oral health care completely out of pocket, others rely on cost-sharing in the form of private and public insurance to overcome financial barriers and maintain access to care. Insurance has been shown to be a facilitator of access to care.[26] The current status quo is oral health care payment and benefits design that is distinct and separate from overall health and medical insurance and is at times inadequate in providing coverage for those with the most severe dental needs and who are financially disadvantaged. These factors directly impact patient experiences and hinder providers' ability to render patient-centered, whole-person care. As such, the innovative minds of the oral health sector must be leveraged to reimagine oral health payment and benefit design in North Carolina.

### *Bridging Gaps in Dental Care: A Path Toward Equity and Accessibility*

An individual with the means to afford dental services will usually form a long-term relationship with one dental office and receive comprehensive care in that same setting for many years. These individuals can be said to have established a dental home, a familiar place where they consistently go to receive oral health care, much like having a primary care provider in the medical system. The dental home model improves the patient and provider experience by facilitating trust and rapport, patient familiarity with the setting and treatment experience, consistent long-term treatment and prevention, tailored treatment planning, provider knowledge of patient medical and dental history, long-term documentation of health records and history of care, and streamlined care coordination. Dental practices tend to operate this way organically based on providers' professional drive to see treatment plans through to completion and render long-term preventive dental services to their patients. This has been further solidified as evidence-based practice, as research shows that continuity of care can positively impact health outcomes.[27]

The following special topic and case scenarios have been included to explain the potential benefits of a dental home model for NC Medicaid beneficiaries:

## WHAT IS A PATIENT-CENTERED DENTAL HOME?

A dental home is an established dental care facility where patients know their dentist and are comfortable receiving care for their teeth in a familiar and consistent place. The Patient-Centered Dental Home (PCDH) is the oral care equivalent to the Patient-Centered Medical Home (PCMH), a model used to set the norm for primary care in the world of medicine.[28] The PCMH is a care delivery model in which a patient's primary care physician coordinates their care in a centralized setting that facilitates more effective collaboration between patients, their primary care physicians, and other members of the health care team. This is achieved using "registries, information technology, health information exchange and other means to assure that patients get the indicated care when and where they need and want it in a culturally and linguistically appropriate manner."[29] The PCDH model was introduced in the early 2000s in response to the need for a standard by which to evaluate oral care and the delivery of services.[28] The PCDH is composed of six characteristics by which to evaluate patient experiences: accessible, comprehensive, continuous, coordinated, patient- and family-centered, and quality- and safety-focused care.[28] With changes in payment models and delivery systems, this PCMH-inspired model for oral health care was created to facilitate the integration between oral care and medical care.[28] This movement toward care coordination, which first appeared in pediatric dentistry, works to combine patient records and care plans of both types of care.[30] By setting a standard of care for oral health professions to follow, the gap in evaluation metrics between oral care and medical care will be addressed and their shared care coordination will be guided by confidence in the quality of care received by a patient.[30]

## HOW DOES HAVING A DENTAL HOME MAKE A DIFFERENCE?

Don has never cared for visiting the dentist in his 70 years of life. However, he always presents for his annual check-ups at Bluelands Dentistry because they send him timely reminders notifying him when he is due for his periodic preventive care. One day, Don feels an uncomfortable twinge in his jaw. He hesitates, but eventually decides to call Bluelands Dentistry. The receptionist, recognizing his concern, assures him they'll fit him in promptly with Dr. Nicely to avoid any further delay in his care. Bluelands Dentistry holds a special place in Don's heart. He's been a patient there since the days when Dr. Nicely's father was at the helm of the practice. Dr. Nicely, well acquainted with Don's dental and medical history and aware of his discomfort with dental procedures, always makes sure to take extra care. She and her attentive staff are diligent about ensuring Don is comfortably numb before any treatment, and the familiar setting always puts him at ease.

Elizabeth has never had consistent access to dental care. As a freelance writer with a sporadic income, she can't afford regular dental check-ups or monthly dental insurance premiums. Occasionally, she takes advantage of walk-in appointments at different private practices' free dental cleaning days. She considers herself lucky for having good teeth that rarely cause any trouble. That is, until one afternoon when she bites down on a popcorn kernel and feels an unexpected sharp pain shoot through her mouth. A piece of her tooth has cracked off and she is in excruciating pain. Panic sets in as she realizes the severity of the situation. She doesn't have a regular dentist; she didn't even know where to start to schedule an appointment on such short notice. She rushes to search the internet for local dental offices. She calls 10 dental offices nearby but unfortunately, most clinics are not accepting new patients, are booked out months in advance, or require up-front payments she can't afford. Feeling frustrated, Elizabeth goes to the emergency department hoping for relief. A physician prescribes her antibiotics and pain medications and recommends that she seek care from a dentist. This helps temporarily, but within a few days after finishing the course of antibiotics, the pain is back and worse than before and Elizabeth is right back where she started. She searches community resources and finds a local health clinic with a sliding fee scale program and schedules an emergency dental care visit. At the appointment, she must answer a lot of preliminary questions and get X-rays taken, since she has no previous history with the practice. The new setting and unfamiliar dentist make her feel nervous.

Private dental practices comprise most of the North Carolina oral health care system. Even though most dental practices operate with a dental home modality, dentists have autonomy as providers and as such, they choose which patients to accept into their practice for non-emergency care. Because access to long-term dental care is most often based on a patient's insurance and ability to pay, the doors to many potential dental homes are closed to financially disadvantaged North Carolinians. Patients with non-emergency dental care needs who are unable to afford dental services can and often will be turned away from private practice settings.

There is no large-scale mechanism by which a dental home model is facilitated at the state level. Patients who are unable to receive care in traditional private practices often are referred to dental safety-net settings or discover them on their own. Individuals who are uninsured will often be referred to dental safety-net settings that provide free care or care on a sliding fee scale, e.g., Federally Qualified Health Centers, free dental clinics, or public health departments. Some of these settings are equipped to serve as dental homes to those unable to afford dental care while others are not, and ultimately not all communities have the safety-net capacity needed to support this population. This can result in financially disadvantaged patients experiencing gaps in care that reflect their lack of access to comprehensive, continuous, coordinated care.

Low-income individuals who are insured under Medicaid have the potential to seek care at private practices that accept Medicaid. However, North Carolinians with Medicaid dental benefits experience similar challenges to those who are uninsured; they must search for and schedule with an office that both accepts Medicaid and is taking new patients, two qualities that are in scarce supply among dental practices in the state. In 2,276 cases audited in a 2018 Health Policy Institute study of 1,138 Medicaid-participating dental offices across the state, NC Medicaid-insured callers were found to be less likely to secure a dental appointment compared to privately insured callers, regardless of age, race/ethnicity, or geography.[31] The primary reason given during the scheduling phone calls was that the offices were not taking new or established patients insured under Medicaid. In a 2024 search of the InsureKidsNow database of Medicaid dental providers compiled by CMS, only about 470 out of 1,000 Medicaid-participating dentists in the state were accepting new patients. This represents a very narrow point of entry for the 2.8 million patients enrolled in Medicaid as of December 2023, and this may be more acutely felt as Medicaid expansion continues to take effect.[32] This could be mediated through the adaptation of a patient-centered dental home model under Medicaid.

Implementation of the dental home model at the systems level to improve oral health care service delivery is a relatively new concept within the United States. As such, North Carolina has an opportunity to be an early adopter. The University of Iowa Public Policy Center's national advisory committee has been leading the charge over the past five years with its PCDH project, honing the PCDH definition; essential characteristics, components, and measure concepts; and specific quality indicators, measures, and standards. Given that North Carolina has already implemented similar programs for medical care, in the form of Patient-Centered Medical Homes (PCMHs), the state has a framework for implementing this model within the oral health care system. PCMHs have been shown to improve quality of care, enhance the patient experience, increase staff satisfaction, and reduce health care costs.[33] For example, a 2021 study of NC Medicaid enrollees with multiple co-morbid chronic conditions found a 19-percentage-point increase in "the likelihood of receiving guideline-concordant care at 4 months of PCMH participation, as compared to newly enrolled individuals with a single month of participation."[34] The adoption of Patient-Centered Dental Homes (PCDHs) could help facilitate similar improvements in the quality and accessibility of oral health care and integrate oral health into care coordination with other primary care providers for Medicaid beneficiaries.

Other states are already moving toward PCDH models that integrate oral health into primary care. Oregon implemented a PCDH-like model at the state level through its existing Medicaid Accountable Care Organizations (ACOs) a decade ago. ACOs basically function as conglomerates of PDMHs to facilitate care coordination at the multi-practice level. The 16 Coordinate Care Organization ACOs (CCOs) that work with Oregon's Medicaid program were assigned responsibility for integrating oral health into physical health care under state law in 2014. Since then, the program has been further refined and continues to grow and evolve to meet the state's needs. One of the many benefits of this model is having built-in infrastructure for system-wide data collection that allows for metrics on care quality, care coordination, oral health integration alongside patient utilization, experience, and outcomes that can be used on an ongoing basis to guide decision-making.[35] For example, a 2021 evaluation of the program showed there was a significant reduction in emergency department use for non-traumatic dental conditions among beneficiaries between 2016 and 2019.[36] Access to dental services and utilization of dental procedures increased during the same period, although the percentage of members with a regular dentist stayed relatively stable. Like North Carolina, Oregon continues to grapple with other barriers to access to dental care, such as workforce shortages, uneven distribution of dental providers, and oral health literacy. This model has yet to achieve the large-scale change it aims to create, but it is a promising example of innovation aimed at increasing access at the state level, and one that many other states can look to for insight in their own oral health transformation initiatives.[36,37]

To enhance oral health care accessibility and quality for NC Medicaid beneficiaries, the task force strongly recommends supporting the implementation of a patient-centered dental home model.

## RECOMMENDATION 1

**Support a patient-centered dental home model for NC Medicaid beneficiaries.**

***Strategy 1:*** NC Medicaid should maintain and strengthen its commitment to compensating providers for emphasizing prevention and delivering restorative care by:

a. Adopting service definitions for preventive care at recommended periodicities to improve patient health (e.g., three dental cleanings per year if needed for periodontal health).
b. Designing payment mechanisms and policies that acknowledge the complexity of the oral health care needs of Medicaid beneficiaries, especially considering high levels of deferred and delayed care due to systemic barriers to access.
c. Working with partners, such as the NC State Board of Dental Examiners (NCSBDE), to ensure that people receiving outreach and evaluation services become established patients in a dental home.

***Strategy 2:*** NC Medicaid should compensate providers for providing high-quality patient-centered and whole-person oral health care by:

a. Designing reimbursement mechanisms that will appropriately compensate practices providing flexible, patient-centered care for individuals with special health care needs and those who meet agreed-upon criteria for complex care needs.
b. Providing payment for care coordination and navigation services that promote the integration of oral health care with medical, behavioral, and social care needs for all age groups, including children and adults with intellectual/developmental disabilities (I/DD) and autism spectrum disorder (ASD).
c. Providing reimbursement for services that support culturally attuned care, such as interpreter services.

***Strategy 1:*** NC Medicaid should maintain and strengthen its commitment to compensating providers for emphasizing prevention and delivering restorative care by:

a. Adopting service definitions for preventive care at the recommended periodicity to improve patient health (e.g., three dental cleanings per year if needed for periodontal health).

b. Designing payment mechanisms and policies that acknowledge the complexity of the oral health care needs of Medicaid beneficiaries, especially considering high levels of deferred and delayed care due to systemic barriers to access.

c. Working with partners, such as the NC State Board of Dental Examiners (NCSBDE), to ensure that people receiving outreach and evaluation services become established patients in a dental home.

NC Medicaid beneficiaries and their providers often face roadblocks when progressing through oral health treatment plans due to the frequency limitations of coverage for certain procedures. These exist as cost-control measures and efforts to address the overtreatment concerns associated with fee-for-service payment models. However, these limitations also impede personalized, patient-centered care and force providers and patients into a one-size-fits-all approach to dental care. In response to the frequently asked question of how often individuals should go to the dentist for routine preventive services, the ADA emphasizes that every person is unique and that some people need more frequent visits for treatment and prevention than others.[38] NC Medicaid only covers two cleanings per year. Virginia's Medicaid program recently shifted to a prevention standard that allows up to three cleanings per year, recognizing this frequency as having numerous benefits for enrollees.[39] These benefits include opportunities to reacquaint beneficiaries with proper health care; interception of bigger problems; increased oral hygiene instruction, education, monitoring, and guidance; and a "member-friendly" approach for patients with increased periodontal risk.

### *Desired Result*

Patients receive care at affordable rates and at intervals recommended by providers.

Providers are adequately compensated for providing the right care, at the right time to best benefit the patient's oral health.

### *Why does the task force recommend this strategy?*

Insurance payer commitment to compensating providers for prioritizing prevention incentivizes evidence-based dental practice that aims to limit the occurrence of disease, and thus reduces the need for treatment of disease that drives up oral health care expenditures.

### *Context*

With recent Medicaid expansion in North Carolina estimated to extend eligibility to 600,000 more individuals in the state, promoting oral health prevention services will be vital. If beneficiaries receive these services before they develop dental disease states, the NC Medicaid program will save money and reduce the demand for dental services currently being shouldered by a limited Medicaid provider pool.

### *How would this impact oral health outcomes?*

Patients' timely access to providers and ability to receive the most appropriate, consistent preventive care prevents dental disease and creates opportunities for early diagnosis and treatment to stop the progression of dental disease, resulting in better oral health outcomes overall. Increased access to preventive oral health care can help improve oral health literacy through increased oral hygiene instruction, patient education, monitoring, and guidance over time. This results in better at-home care that supports the preventive services provided in the dental chair.

***Strategy 2:*** NC Medicaid should compensate providers for providing high-quality patient-centered and whole-person oral health care by:

a. Designing reimbursement mechanisms that will appropriately compensate practices providing flexible, patient-centered care for individuals with special health care needs and those who meet agreed-upon criteria for complex care needs.

b. Providing payment for care coordination and navigation services that promote the integration of oral health care with medical, behavioral, and social care needs for all age groups, including children and adults with intellectual/developmental disabilities (I/DD) and autism spectrum disorder (ASD).

c. Providing reimbursement for services that support culturally attuned care, such as interpreter services.

### *Desired Result*

Diverse patient populations can consistently access comprehensive, effective, and affordable dental care.

### *Why does the task force recommend this strategy?*

North Carolina dental providers currently face barriers to providing the best care for patients, as doing so requires more than a one-size-fits-all approach to dentistry that is incentivized under fee-for-service payment models. This impacts elderly, I/DD, pregnant, and non-English-speaking individuals who may require longer appointment times, modifications to treatment methods, sedation or general anesthesia, interpretive services and culturally attuned care, care coordination with other providers, and social support services, among other things. Supporting providers in delivering these services allows patients from marginalized populations to navigate the oral health system with less confusion and with a sense of being understood, valued, and prioritized. This level of complexity can be a challenge based on providers' capacity to render services and their level of training in treating vulnerable populations, potentially resulting in inadequate provision of the supports that vulnerable populations need to maintain access to the oral health system. Within the fee-for-service framework, the implementation of dental billing codes to reimburse the services required by vulnerable populations could improve providers' capacity to invest in the added supports needed for these populations.

For example, the I/DD population often faces unique challenges in accessing the oral health system. As a result, individuals in this population experience "poorer oral hygiene, higher prevalence and severity of periodontal disease, and higher incidence of untreated caries than the general population."[40] This is due to challenges such as individuals' inability to participate in personal oral hygiene, apprehension, unwillingness, or inability to cooperate during dental visits, as well as transportation barriers.

State-level studies are mixed as to whether Medicaid enrollment of children in the I/DD population results in higher dental care utilization rates compared to other children.[41] However, in states that have implemented Medicaid expansion, access for low-income adults without dependent children has increased.[41] NC Medicaid managed care is also on the cusp of implementing its Behavioral Health I/DD Tailored Plan, which aims to provide ongoing care management to individuals with developmental disabilities, mental health disabilities, traumatic brain injury, and substance use disorders (SUDs). Dental services are listed as a key component to be managed under these plans, presenting an opportunity for improvement in oral health access for this population. Access Dental Care,[42] a non-profit organization supported by the North Carolina Dental Society, shows promise in bringing personalized patient-centered dental care to these populations in 67 counties via mobile dental units, with requests for service statewide. Of the individuals served by Carolina Access Dental Care, 80% are Medicaid-insured, presenting an opportunity for a statewide partnership with Medicaid. Other promising approaches to improving access for this population include increased special care education for dental clinicians and specialists, interprofessional collaborations, and integration of oral hygiene care into home care.[41]

### *Context*

As described in the chapter introduction, Medicaid is falling behind in its reimbursement of oral health care providers, and provider participation is suffering as a result. Medicaid's priority population faces many challenges with regard to social determinants of health that often result in complex needs. Participating providers face increased demand for appointment time, care coordination, and navigation services to support their patients in addressing their medical, behavioral, and social care needs. Providing reimbursement for rendering this kind of care in-office could alleviate some of the financial, labor, and administrative demands associated with whole-person care across the lifespan for Medicaid's diverse patient population.

Reimbursement rates impact provider participation in Medicaid and therefore beneficiaries' access to care. Providers who participate in Medicaid are already providing care coordination and navigation and interpretation services to create true dental homes for their patients. Compensating them for this work will increase their capacity to continue rendering whole-person care by addressing social determinants of health and other social care needs. This benefits the system because patients can gain better awareness of the community resources available to them, resulting in increased utilization of preventive services and improved health outcomes.

### *How would this impact oral health outcomes?*

More whole-person patient-centered care will result in better oral health outcomes, as patients will be encouraged to pursue systemic health, supported in addressing social determinants of health, and provided with social supports to help them do so.

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- for Dental Care Services
- Medicaid Adult Dental Benefits Coverage by State

## RECOMMENDATION 2

**Improve access to care, including care for patients with special health care needs, by retaining providers, supporting innovative care, and enhancing access to specialty services.**

***Strategy 3:*** The NC General Assembly should establish a Medicaid Oral Health Payment Reform Task Force to:

a. Align compensation for oral health providers with state goals of improved access to care for current and future NC Medicaid beneficiaries.

b. Support NC Medicaid in increasing and expanding payment rates by:

   i. Developing a strategy to provide technical assistance on emerging and existing practices that will expand services reimbursed through Medicaid.

   ii. Prioritize increasing access to specialty care by increasing reimbursement for specialty providers.

***Strategy 4:*** NC Medicaid should address provider experience and administrative burden by:

a. Developing and implementing a strategy to identify administrative burdens for providers enrolled in the Medicaid program and working to reduce and eliminate barriers.

b. Partnering with the UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families to convene an ongoing provider working group to identify and track administrative barriers.

As described in the chapter introduction, payment and benefit design can negatively impact provider experiences of rendering care to vulnerable or rural populations. Provider burnout is a common issue in the general health care workforce, especially for those working in safety-net settings. Common sources of provider burnout within safety-net settings include "limited resources, barriers to building trust with patients, administrative requirements, and compassion fatigue."[43] Symptoms of burnout have been found to be associated with provider turnover intention, absenteeism, depression, provider errors, and increased patient safety risks.[44] These factors make provider retention a challenge in settings with vulnerable priority populations, which can create issues with quality and continuity of care within these settings.

***Strategy 3:*** The NC General Assembly should establish a Medicaid Oral Health Payment Reform Task Force to:

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b. Support NC Medicaid in increasing and expanding payment rates by:

   i. Developing a strategy to provide technical assistance on emerging and existing practices that will expand services reimbursed through Medicaid.

   ii. Prioritize increasing access to specialty care by increasing reimbursement for specialty providers.

### *Desired Result*

Dentists can afford to continue providing high-quality care to patients enrolled in Medicaid.

### *Why does the task force recommend this strategy?*

Current NC Medicaid reimbursement rates for dental care are lower than they were in September2008. This is unsustainable for dental practices and must be addressed if there are to be improvements in the number of providers participating in the program and the amount of participation from providers who already participate.

### *Context*

NC Medicaid's fee-for-service dental reimbursement rates have not kept up with inflationary pressures on dental fees or private dental insurance rates over the past decade. This means Medicaid-participating dentists suffer reductions in revenue per service provided compared to their peers. To attract more dental providers, large-scale reform in payment and benefit design will be required to level the playing field in reimbursement under Medicaid compared to private dental insurance. This will require collaborative and workforce-informed recommendations for improving compensation.

As recently as 2023, the North Carolina General Assembly appropriated $220 million in recurring funds to increase Medicaid reimbursement rates for providers of mental health, SUD, and I/DD-related services.[45] Increases could also be made toward oral health care services, and the state is well overdue for this given that rates have been stagnant for over a decade. In 2022 alone, 14 other states updated their laws regarding dental Medicaid, many of which included increasing reimbursement rates.[46]

### *How would this impact oral health outcomes?*

Improving retention of providers through increased Medicaid reimbursement will result in more providers being able to meaningfully participate in the program as well as a higher likelihood of patients receiving the care they need.

***Strategy 4:*** NC Medicaid should address provider experience and administrative burden by:

a. Developing and implementing a strategy to identify administrative burdens for providers enrolled in the Medicaid program and working to reduce and eliminate barriers.

b. Partnering with the UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families to convene an ongoing provider working group to identify and track administrative barriers.

### *Desired Result*

System transparency and efficiency reduce administrative burden, making it possible for providers to easily participate in NC Medicaid

### *Why does the task force recommend this strategy?*

Task force members emphasized the administrative burden of being Medicaid-participating providers and the potential negative impact this may have on network adequacy and access to care.

### *Context*

While NC Medicaid reimbursement rates are due for much-needed adjustments, this is not the only driver of provider participation.[47] Many dental providers cite administrative burdens as a barrier to NC Medicaid participation. Administrative requirements of a Medicaid provider include paperwork compilation, completion, filing, and transmission for credentialing, eligibility, claims submission, coordination of benefits, and reimbursements.[48]

A study examining the effect of reimbursement rate increases on access to care for beneficiaries found that "rate increases are necessary, but not sufficient on their own, to improve access to dental care" and that streamlining of administrative processes can help maximize the benefit of smaller rate increases and mitigate potential damage when state budgets contract.[16]

### *How would this impact oral health outcomes?*

Improving provider experience by relieving administrative burdens of NC Medicaid participation will increase participation and thus increase access to care for NC Medicaid beneficiaries.

## RECOMMENDATION 3

**Promote and incentivize high-quality patient experiences and positive health outcomes.**

***Strategy 5:*** NC Medicaid should continue to advance practice improvement by:

a. Developing programs and identifying funding sources to provide monetary and non-monetary incentives for dental practices, such as consulting services, technical assistance, professional development, technology, and patient education resources.

b. Expanding the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey to include measures related to oral health.

c. Developing a consumer advisory council to identify and track administrative barriers related to consumer experience, leveraging the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey.

Incentive programs can be powerful drivers of value-based care that connect financial rewards with care quality rather than just quantity. NC Medicaid already has two such programs. The UnitedHealthcare Community Plan of North Carolina Primary Care Professional Incentive (CP-PCPi) program offers financial incentives for eligible partner providers improving the engagement of their patient plan members in preventive health care. The UnitedHealthcare Community Plan Health Equity Program Incentive (CP-HEPi) rewards eligible Advanced Medical Home (AMH) providers for reducing racial and ethnic health inequities. These incentive programs are tracked based on Healthcare Effectiveness Data and Information Set (HEDIS) measures, which set the standard for many value-based care initiatives. Another incentive rewarded Medicaid-eligible professionals for adopting meaningful use of electronic health records. Similar programs could be implemented to drive high-quality patient experiences and outcomes of oral health care services under NC Medicaid.

Improving the experiences of NC Medicaid beneficiaries in receiving oral health care will increase care-seeking behaviors that include preventive dental care to avoid poor oral health outcomes in the long term. An incentive-based approach aligns with NC Medicaid's overarching goal to "improve the health of North Carolinians through an innovative, whole-person centered, and well-coordinated system of care and measurement of quality, which addresses both medical and non-medical drivers of health."[49] There are many key factors that influence the success of this recommendation. They are as follows on the next page.

**Key factors that influence the success of high-quality patient experiences and positive health outcomes**

- **Alignment with Medicaid Goals:** Incentive programs must align with the overarching goals of the Medicaid program. These goals might include improving access to care, enhancing quality metrics, promoting preventive care, or addressing specific health outcomes. The incentives should support and encourage providers to contribute to achieving these objectives.
- **Quality Improvement Measures:** Incentive programs should incorporate measurable quality improvement metrics. These could include patient outcomes, adherence to best practices or clinical guidelines, patient satisfaction scores, and preventive care rates. Aligning incentives with these measures ensures that providers focus on delivering high-quality care.
- **Provider Participation and Engagement:** Ensuring buy-in and participation from a wide range of providers is critical. Programs should consider the needs and perspectives of various health care professionals, including physicians, dentists, specialists, and behavioral health providers. Engaging stakeholders in the design and implementation phases can improve program acceptance.
- **Data Infrastructure and Reporting Capabilities:** Robust data collection and reporting mechanisms are necessary to evaluate provider performance accurately. Medicaid agencies need reliable systems to collect and analyze data on patient outcomes, care quality, and provider performance to determine incentive eligibility.
- **Financial Considerations:** Medicaid incentive programs should offer financial incentives substantial enough to motivate providers. These incentives might come in the form of increased reimbursement rates, bonus payments, or grants. Adequate funding and sustainability of the incentives are crucial to attract and retain providers.
- **Ease of Implementation:** The simplicity and ease of understanding the incentive program structure are essential. Complex or burdensome administrative requirements may deter provider participation. Streamlined processes and clear guidelines for eligibility and reporting are crucial for successful implementation.
- **Sustainability and Long-Term Impact:** Sustainable funding models and long-term planning are necessary for the continuous success of incentive programs. Short-term initiatives might not have a lasting impact, so it's important to consider the long-term viability and scalability of the incentives.
- **Flexibility and Adaptability:** Flexibility in program design allows for adjustments based on changing health care landscapes, technological advancements, or shifts in health care needs. Being adaptable ensures that the incentive programs remain relevant and effective over time.
- **Evaluation and Continuous Improvement:** Regular evaluation of the incentive programs is crucial to assess their impact and identify areas for improvement. Feedback from providers and beneficiaries can guide modifications to enhance the programs' effectiveness.

By considering these key factors, Medicaid agencies can develop incentive programs that effectively encourage provider participation, improve health care quality, and ultimately benefit the Medicaid population.

***Strategy 5:*** NC Medicaid should continue to advance practice improvement by:

a. Developing programs and identifying funding sources to provide monetary and non-monetary incentives for dental practices, such as consulting services, technical assistance, professional development, technology, and patient education resources.

b. Expanding the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey to include measures related to oral health.

c. Developing a consumer advisory council to identify and track administrative barriers related to consumer experience, leveraging the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey.

### *Desired Result*

Patients in North Carolina receive high-quality care that aligns with the task force vision for patient experience and satisfaction.

### *Why does the task force recommend this strategy?*

The task force cited increased investment in the oral health programs through practice improvement to meet quality goals. Medicaid provider incentive programs are designed with several desired outcomes in mind to improve health care delivery, enhance patient outcomes, and increase overall program effectiveness. Some of the key desired results of these incentive programs include:

- **Improved Access to Care:** Encouraging providers to participate in Medicaid through incentives can expand the network of health care professionals available to Medicaid beneficiaries. This broader provider base enhances access to timely and comprehensive care, especially in underserved or rural areas where access may be limited.
- **Enhanced Quality of Care:** Incentive programs often focus on quality improvement measures. By aligning incentives with quality metrics and best practices, these programs aim to elevate the standard of care delivered to Medicaid beneficiaries. Providers are motivated to meet or exceed benchmarks related to patient outcomes, preventive care, and adherence to clinical guidelines.
- **Better Health Outcomes**: As a result of improved access and higher-quality care, the overall health outcomes of Medicaid beneficiaries are expected to improve. Effective preventive care, early intervention, and management of chronic conditions can lead to reduced hospitalizations, lower complication rates, and improved overall health for beneficiaries.
- **Increased Provider Engagement and Retention**: Incentive programs can foster greater provider engagement and job satisfaction by recognizing and rewarding their efforts. This engagement can lead to increased provider retention within the Medicaid program, reducing turnover rates and ensuring continuity of care for beneficiaries.

- **Cost Savings and Efficient Resource Utilization:** When providers focus on preventive care and early interventions, it can lead to cost savings by reducing the need for expensive emergency services or hospitalizations. Incentive programs that encourage cost-effective care delivery models contribute to more efficient resource utilization within the Medicaid system.
- **Promotion of Innovation and Best Practices:** Incentive programs may drive innovation and the adoption of best practices in health care delivery. Providers may be incentivized to adopt new technologies, implement evidence-based interventions, or participate in care coordination efforts, leading to advancements in care delivery.
- **Reduced Health Disparities:** Targeted incentive programs can address health disparities by encouraging providers to serve vulnerable populations or regions with historically limited access to health care. By focusing incentives on specific health outcomes or population health goals, these programs aim to reduce disparities in care.
- **Strengthened Provider-Patient Relationships:** Provider incentive programs that emphasize patient-centered care can foster stronger relationships between providers and patients. Encouraging communication, shared decision-making, and personalized care approaches can enhance trust and satisfaction among Medicaid beneficiaries.

### *Context*

Dental practice improvement is integral to value-based care. As discussed above, incentives are great drivers for change once new evidence-based best practices are identified. They motivate providers and give them the tools and resources necessary to implement such improvements. NC Medicaid also pushes dental practice improvement through consulting services like the Public Consulting Group (PCG), which conducts online training for providers pursuing Medicaid enrollment. NC Medicaid provides this training to encourage best practices and practice improvement among participant providers. NCTracks is another entity that aids in practice improvement by supporting providers with prior approval and claims submission and providing access to announcements, FAQs, and key resources. Additional resources to push best practices and drive practice improvement could take the form of provider training and communications featuring evidence-based guidelines.

While there are existing measures to document access to care and quality metrics, one of the many challenges to dental practice improvement is a lack of measurement to determine variables that impact the Quadruple Aim of lowering costs while improving patient experience, provider experience, and health outcomes. Such tracking would generate an evidence base for decision-making at the policy level for dental practice improvement. Without these measures, there are limited longitudinal data to use for evidence-based decision-making at the state level. As such, innovative dental practice improvement must be discovered through isolated pilot programs with limited context or generalization at the state level.

The resources currently available to NC Medicaid providers include CMS toolkits, Area Health Education Centers (AHEC) training, NCTracks, and free patient education materials on recent expansion. Further investment in similar resources can help drive practice improvement. Additionally, incentive mechanisms can push implementation of practice improvements. NC Medicaid will be implementing the Standard Plan Withhold Program starting in 2024. This program features an arrangement in which a portion of health plans' expected capitation payment is withheld, and plans must meet quality measure performance targets to receive the withheld funds. The NC Medicaid dental program will not be affected by such an initiative due to being carved out of managed care, however, it reflects a state culture of commitment to quality care. Quality survey results are another means by which NC Medicaid drives practice improvement. The Consumer Assessment of Healthcare Providers and Systems (CAHPS) is a survey of patient experience that is a national standard. NC Medicaid administers this survey to its beneficiaries to inform improvements in care. NC Medicaid also has a federally mandated Medicaid Care Advisory Committee which advises the state in decision-making processes regarding the program. A consumer advisory council could be a valuable addition to this framework.

### *How would this impact oral health outcomes?*

Increased provider retention will result in increased access to care and practice improvement will result in better oral health outcomes.

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3

# CHAPTER THREE

## Oral Health's Place in Integrated Health Care Systems

The current oral health care system in North Carolina is a complex network of government, business, nonprofit, private, and public, stakeholders that all serve unique roles in the rendering of oral health care services across the state. The components of this system all operate independently and on different scales at local, district, and state levels, each with their own unique goals and priorities. However, most members of the North Carolina oral health system share the overarching goal of helping patients achieve and maintain a positive state of oral health. Every oral health entity must operate successfully within the state oral health system, and the oral health system must operate within the larger health care system to achieve this goal. In essence, care integration is essential to the success of the system and its component parts. With an increasing emphasis on whole-person health, the oral health system must evolve to operate efficiently and cohesively on its own and within the larger health care system. As such, interventions to increase care integration at the oral health care system level will be vital to its success in meeting the demands of its stakeholders.

The current North Carolina oral health system, like most human-made systems, has come about through a combination of historical events, policymaking, evidence-based practice, and human behavior and social norms. The oral health system at the state level was not designed all at once as a cohesive unit; rather, it was created by a collective of independent entities that coordinate and engage in collaborative partnerships at will. Due to this fragmentation and lack of centralization, the North Carolina oral health system is in many ways challenging to define. Not every component of the system has a direct commitment to or participation in state-level systems change.

### CARE INTEGRATION: SOCIAL SUPPORT IN DENTISTRY

*"It (dental-social work integration) opened so many doors for patients to receive referrals that they might not have been able to receive before. Or to have the opportunity to speak with a social worker in a setting that's already uncomfortable for a lot of people."*

— Kelsey Yokovich, MSW

Read more about integrated care in oral health settings from the North Carolina Oral Health Collaborative.

Despite the fragmentation of the oral health system, there is a growing desire among different stakeholder populations for it—and the overall health system—to evolve to better meet the essential oral health care needs of all North Carolinians. This is a public health goal, and as a largely private-practice-based system that provides services long perceived as privilege rather than essential to health, it is no surprise that the current state oral health care system is not unified around, aligned with, or designed to fulfill such a population-focused purpose. Accordingly, change in care integration at the system level will be essential to creating an oral health system that can meet the needs of all North Carolinians.

For the North Carolina oral health system to succeed in meeting the essential oral health care needs of the state's population, various entities must have the resources and ability to work together in the provision of direct patient care, oral health education, screening and referral services, business and administrative services, social supports, oral health advocacy, and oral health policy and regulation. North Carolina has seen consistent efforts toward this goal over the past few decades, alongside a new wave of public recognition of the value of health and wellness and the impact that our systems and environments have on these aspects of our lives, as depicted in the conceptual model below. Read more about care integration for social support in dentistry in **Chapter 4.**

There is a growing desire to reduce fragmentation within the health care system to allow for easier patient navigation, reduced administrative complexity, and improved data collection to measure and track important health system variables and outcomes. This push for integration has taken the form of integrated electronic health records, referral programs, interprofessional education, interdisciplinary collaboration, teledentistry, and same-site provision of care in some public health settings.

To change a system, one must first understand its current design. North Carolina's oral health care system, like much of the United States health care system, is largely decentralized, individualized, and commodified. These features can allow for autonomy, adaptability, and tailoring of services to meet demand, creating a diverse range of user experiences across the state. However, these features can also add complexity that makes it harder for the system to function as a cohesive unit when it comes to setting and achieving the big picture goals at the state level. System fragmentation can disrupt continuity of care and create inefficiencies by making it difficult for providers to engage in the interdisciplinary collaboration necessary to provide well-informed whole-person care for their patients.

## *Moving From Separation to Integration of Oral and Overall Health Systems*

Associations have been found between oral health problems and systemic illnesses such as cardiovascular disease, premature or low birth weight babies, depression, asthma, and chronic pulmonary disease.[1] Additionally, many systemic health conditions have presentations in the mouth that allow for screening and early diagnosis by dental providers. Accordingly, the health system should be designed to allow seamless collaboration between medical professionals and dental professionals. However, the practice of dentistry has long been separated from the practice of medicine, making seamless care integration the exception rather than the rule.

Medicine and dentistry, historically evolved separately, each establishing its own infrastructure for education, practice, and care delivery.[1] The insurance systems and payment models in medicine and dentistry differ significantly. Unlike medical insurance, which originally aimed to cover unexpected and costly medical expenses, dental plans originated to fund routine preventive care.[2]

The historical differences in origin and purpose of insurance coverage have effectively segregated oral health from overall health, a divide that extends into public policy, particularly in public insurance programs. While comprehensive medical procedures are federally mandated to be covered under Medicaid for adults, dental care lacks similar coverage. Only low-income children up to age 21 are guaranteed coverage, with adult coverage varying by state. Dental insurance is often seen as supplementary, whereas medical insurance is regarded as essential and necessary. For instance, Medicaid only covers adult dental procedures deemed "medically necessary" by individual state criteria, often limited to emergency services for pain relief.

The relegation of oral health care as elective rather than a fundamental necessity reflects the broader perception of oral health within the healthcare system. This segregation impedes patient-centered, whole-person care, impacting patient experiences and constraining providers in both dental and medical settings. Though many favor the separation of dentistry from medicine in favor of maintaining professional autonomy, traditional dental practice models, and tailored dental care provision, others feel that these features can be preserved even while increasing care integration. In a state of care integration, all components of the oral health care system would be optimally connected, coordinated, effective, and efficient in meeting the oral health care needs of the entire North Carolina population. This is not yet the reality of our oral health care system, but the state has a lot to be proud of in its pursuit of this goal. Full achievement of this goal will require further investment in care integration through innovations such as teledentistry, electronic health records, referral systems, and more.

**RECOMMENDATION 4**

**Ensure patients experience seamless and integrated physical, oral, behavioral, and social care through coordination and collaboration between oral health and medical practitioners.**

***Strategy 6:*** NC Medicaid, the NC Health Information Exchange Authority, the North Carolina Medical Society, the North Carolina Dental Society, the Old North State Dental Society, and the North Carolina Healthcare Association should collaborate to identify mechanisms for improved coordination and data-sharing between medical, behavioral, and social care.

Integrating oral health into general health care allows for a more wholistic approach to health care and enables early detection of oral health issues. Regular check-ups by primary care providers can help identify problems in their early stages, preventing them from becoming more severe and costly to treat. Focus on seamless integration aims to improve the patient experience by ensuring that individuals receive coordinated care that meets their diverse needs. It prioritizes patient preferences, convenience, and accessibility to various health care services.

**Key factors influencing the health policy recommendation of ensuring seamless and integrated care among physical, oral, behavioral, and social care:**

### *Improved Access to Care and Health Outcomes*

Many individuals, especially in underserved communities, may have limited access to dental care. Integrating oral health into primary care allows for easier access to basic dental services for those who might not otherwise receive them. Primary care integration also enhances the overall healthcare experience for patients. By incorporating dental screening protocols into routine primary care visits, health care providers can effectively identify dental issues early on, allowing for timely intervention and prevention of more serious oral health problems. This proactive approach enables clinicians to address patients' dental needs alongside other medical concerns. Just as primary care physicians screen and refer patients for other medical specialties, such as cardiology or dermatology, integrating oral health screenings into primary care practice enables timely identification of dental issues and appropriate referral to dental professionals. This not only promotes better oral health outcomes but also contributes to the comprehensive management of patients' overall health and well-being.

Integration of care services can lead to better health outcomes. For instance, early detection of oral health issues by medical practitioners can prevent complications and contribute to improved overall health status. Similarly, addressing behavioral and social factors alongside physical and oral health can positively impact health outcomes.

### Reduced Health Care Disparities

Integrating care can help in addressing disparities in health care access and outcomes, especially for underserved populations. By combining various health care services, it becomes possible to reach marginalized communities and provide them with comprehensive care.

### Comprehensive Patient Care and Education

By integrating oral health into general health care, health care professionals can provide more comprehensive and coordinated care to patients. This approach helps in better understanding the patient's overall health and tailoring treatment plans accordingly. It would facilitate long-term services and supports for patients with unique needs, such as people with complex treatment needs, non-English speakers, or individuals with intellectual and developmental disabilities or autism spectrum disorder.

Incorporating oral health into primary care also offers an opportunity to educate patients about the importance of oral hygiene, preventive measures, and lifestyle choices that positively impact oral health. Overall, oral health integration ensures that dental care is seen as an integral part of overall health care, leading to better health outcomes, increased access to care, and improved quality of life for individuals.

### Cost-effectiveness

Addressing oral health issues at an early stage is generally less expensive than treating advanced dental problems. Integrating oral health into primary care can help in cost-effective preventive measures and early interventions by reducing duplicative services, preventing unnecessary hospital visits, and addressing health issues by routing patients to a dentist for treatment needs before they escalate into more complex and costly problems.

### Interdisciplinary Collaboration

Effective coordination and collaboration between oral health and medical practitioners are essential. This involves breaking down silos between different health care sectors, fostering teamwork, and encouraging communication among professionals from diverse backgrounds to provide cohesive care.

### Technological Advancements

Integration can be facilitated using technology such as electronic health records (EHRs), access to the state's health information exchange, and telehealth, enabling better communication and coordination among different health care providers and improving the continuity of care for patients.

Overall, these factors collectively underscore the importance of seamless integration and collaboration among various health care sectors to improve patient outcomes, enhance health care delivery, and promote overall well-being.

## Interoperable Health Records and Oral Health

### What are interoperable electronic health records?

Interoperable electronic health records (EHRs) are comprehensive, real-time digital versions of patient charts. They allow different health information systems and software applications to communicate, exchange, and support health-related data effectively. They contain patient medical and treatment histories, but they also offer a broader view of a patient's care with the inclusion of medical history, treatment plans, and test results. The goal of interoperability is to facilitate seamless and secure sharing of patient information across various health care settings, organizations, and technology platforms. This interoperability is crucial for improving patient care, enhancing efficiency, and promoting better coordination among health care providers.

Over the last 20 years, adoption of EHRs within health settings has been encouraged through policy advancement and financial incentives. By 2021, 78% of office-based physicians and 96% of non-federal acute care hospitals nationwide had embraced certified EHRs, a surge driven by billions of dollars in federal investment related to the transformative changes brought about by the 2009 HITECH Act and the ACA in 2010.[3-5] While EHRs are designed for information-sharing within an organization's health care providers, it is important to underscore that intraorganizational communication does not automatically equate to interoperability. Across health care settings, continuing to enhance utility in data-sharing while prioritizing data standardization and sharing remains a priority for the federal government.

There are hundreds of variations of EHRs available in the market, many of which have unique styles and documentation requirements.[6] Despite this, little progress has been made to readily format EHRs to link dental, medical, behavioral, and social care record systems.

### What has encouraged the growth of EHRs?

- **The 21st Century Cures Act** was signed into law in 2016 and in part called for the increase of health record interoperability. In 2023, the U.S. Department of Health and Human Services (HHS) Office of the National Coordinator for Health Information Technology proposed new rules to implement the Cures Act, including updating standards and implementation specifications adopted to advance interoperability and reduce burden and cost of the systems.[7]
- **Health Level Seven (HL7)** provides standards for the transfer of health data between applications. The HL7 standards were created by the nonprofit Health Level Seven International, which is dedicated to providing a comprehensive framework for the exchange and integration of electronic health information.[8]
- **The Centers for Medicare & Medicaid (CMS)** Promoting Interoperability Program is a network created to increase focus on interoperability and improving patient access to health information. While the nationwide program ended in 2022, there is still a push to have eligible hospitals and critical access hospitals[a] create an interoperable system.[9,10]

[a] *"Critical Access Hospital is a designation given to eligible rural hospitals by the Centers for Medicare & Medicaid Services (CMS). The CAH designation is designed to reduce the financial vulnerability of rural hospitals and improve access to healthcare by keeping essential services in rural communities."*[10]

### Why is it important to think about interoperable electronic health records in the context of oral health?

A notable disparity exists between electronic dental records (EDRs) and EHRs. EHR vendors are held to standards for facilitating interoperability; EDRs lack equivalent support, leading to the respective records being isolated within distinct data silos. The ability to share information across systems or organizations is lacking, and existing unification standards for dental data exchange are underutilized.[11]

A concerted effort to improve communication and translation of data across systems and applications has the potential to:

- Accelerate interventions by providing more accessible and accurate health care information.[12]
- Facilitate faster and easier transfer of patient information across multidisciplinary lines to allow providers to see what others have done, reducing the likelihood of redundant medical tests.[12]
- Help patients receive more wholistic care, allowing providers across a care team to share new data, lab results, and procedures in real time.[13]
- Provide patients access to valuable personal health data available from separate practices.

### What are the current roadblocks for data exchange?

- Proprietary and non-standardized data systems, which limit opportunities for formatting, transmitting, and receiving of a patient's health information.[14] By providing a common language around content for clinical data, data can be exchanged across EHRs without risk of misinterpretation or misclassification.
- Many EDRs do not see the same enhancements as medical EHRs, as there may be a perceived lack of return on investment.[14]
- Challenges in designing dental EHRs to incorporate dentists' information requirements into the EHR workflow.

### What is happening in North Carolina related to interoperable electronic health records?

**NC HealthConnex** is a statewide health information exchange (HIE) that allows for the secure exchange of patient information. It contains the health records for more than 8 million North Carolina patients covered by NC Medicaid, NC Health Choice, or the NC State Employees' Health Plan.[15] It breaks down the information silos between health providers within different systems. It is a tool designed to link unconnected systems and existing HIE networks together to allow for a wholistic view of patients' records, including dental care.[16]

All Medicaid-participating health care providers are mandated to connect to NC HealthConnex, making North Carolina one of the few states to require dentists to connect to the statewide HIE. Dentistry's unique terminology and coding systems makes it particularly difficult to utilize the HIE as intended and to accurately document dental procedures, diagnoses, and treatments.

### Key considerations for North Carolina in advancing interoperability to include oral health data:

- A comprehensive environmental scan will provide a better understanding of which systems are technologically capable of interacting with other health records.
- Use of digital tools called application programming interfaces (APIs) to create algorithms to decipher and share data. This would allow EHR systems to become more efficient and help improve patient outcomes by analyzing patient data and identifying potential health issues.[17] This would reduce the cost associated with creating interoperable language.
- Implementing mandates from Medicaid, such as reissuing the Medicaid Promoting Interoperability Program that ended in 2022, may incentivize payers to participate in creating interoperable systems. With the financial backing of the government, vendors are more likely to upgrade their software to interoperable standards.[18]

***Strategy 6:*** NC Medicaid, the NC Health Information Exchange Authority, the North Carolina Medical Society, the North Carolina Dental Society, the Old North State Dental Society, and the North Carolina Healthcare Association should collaborate to identify mechanisms for improved coordination and data-sharing between medical, behavioral, and social care.

### *Desired Result*

Dental, medical, behavioral, and social care providers have a common platform to share and access valuable patient health information.

### *Why does the task force recommend this strategy?*

North Carolina already has a state health information exchange known as NC HealthConnex. This exchange contains health records for over 8 million North Carolinians.[15] It has more than 60,000 contributing providers and more than 10,000 participating health care facilities.[16] This presents an opportunity for care integration across the state. Providers that see NC Medicaid, NC Health Choice, or NC State Employees' Health Plan patients were required to connect to NC HealthConnex, but the penalty for failing to connect prior to the 2021 deadline was subsequently removed. There are also barriers to connecting to NC HealthConnex, as it can take up 12 months depending on a provider's EHR software and it can be expensive to implement, and/or require extensive training for staff.15 As such, many dental practices are not integrated into this system; as of 2022, only 21% of identified dental providers were integrated into NC HealthConnex.[19] Funding for building and maintaining a data-sharing interface and system incompatibilities seem to be the largest barriers to participation in the North Carolina health information exchange. These must be addressed to improve participation for more integrated care.[20]

### *Context*

This strategy aims to spearhead improved coordination and seamless data-sharing among medical, behavioral, and social care entities. Such concerted efforts have the potential to revolutionize the state's health care landscape, ensuring more comprehensive and wholistic patient care while leveraging shared resources and expertise to address the diverse health needs of North Carolinians. The named parties should identify mechanisms that allow medical providers to easily share relevant medical information with dental providers and vice versa.

One such mechanism is interoperable EHRs and health information exchanges (HIE), in which data about patients' care is accessible via an integrated, centralized health record system. In North Carolina and across the country, medical and dental health records are largely managed on separate systems that cannot interact with one another. This presents issues in coordination of care between medical and dental providers even when working at co-located facilities.[19] While some dental practices are starting to take up interoperable records systems, they are far from the norm. Integrated EHRs must be implemented more broadly across the state to improve care integration, as these comprehensive records allow for whole-person health care by giving all providers access to relevant information about each patient's health history and concurrent care being received from other providers. These EHRs also facilitate interprofessional communication for coordinated care among members of a patient's care team. According to a 2022 survey conducted by CareQuest Institute for Oral Health, due to lack of integrated accurate records, "95% of providers say they request information about the health care services their patients receive from other health care organizations."[19] This takes time that could be spent in direct care provision if providers could instead access that information with the click of a mouse. Improved accuracy and clarity of EHR medical records can also reduce the incidence of provider error, duplication of procedures and tests, and delays in treatment.[21] Integrated EHRs could also help facilitate referral services from dentists to outside providers and vice versa.[19]

The Centers for Medicare & Medicaid Services (CMS) has historically pushed care integration via EHRs under its Promoting Interoperability Program.[19] This has taken the form of incentive programs that reward eligible professionals, hospitals, and critical access hospitals for adopting, implementing, upgrading, and demonstrating meaningful use of certified EHR technology (CEHRT). The widespread adoption of EHRs across medicine was made possible by massive incentives and funding at the federal level.[22] The adoption of EHRs in medical practices is also facilitated by the fact that many medical providers practice in multi-provider group practices, often closely tied with, or owned by hospitals and health systems, which spreads the costs of EHR adoption and maintenance across the system.[23] North Carolina's dental landscape of sole proprietors and small practices is very different. Significant state investment would be necessary to realistically achieve the goal of increasing meaningful use of EHRs for care integration that benefits of quality of care, patient experience, and oral health outcomes.[24] In the 2022 CareQuest survey assessing FQHC medical and dental providers, 100% of dental provider respondents said they would like the ability to view their patients' medical information, and 75% of medical provider respondents said they would like to view their patients' dental information.[19] This shows strong provider interest in integrated EHRs and health information exchange.

### *How would this impact oral health outcomes?*

Incorporating oral health data into a comprehensive health record enables health care providers to have a more complete understanding of a patient's overall health status. This comprehensive view allows for early detection and more informed decision-making and treatment planning by addressing both medical and dental conditions simultaneously.

An interoperable health record system that integrates oral health information enhances care coordination, facilitates early intervention, promotes patient engagement, and provides a more comprehensive approach to health care delivery, ultimately leading to improved health outcomes for individuals and communities.

## RECOMMENDATION 5

**Support community-based access to oral health care.**

***Strategy 7:*** The NC Office of Rural Health and the NC Community College System should collaborate with the NC Community Health Workers Association (NCCHWA) to provide effective community-based education on oral health by:

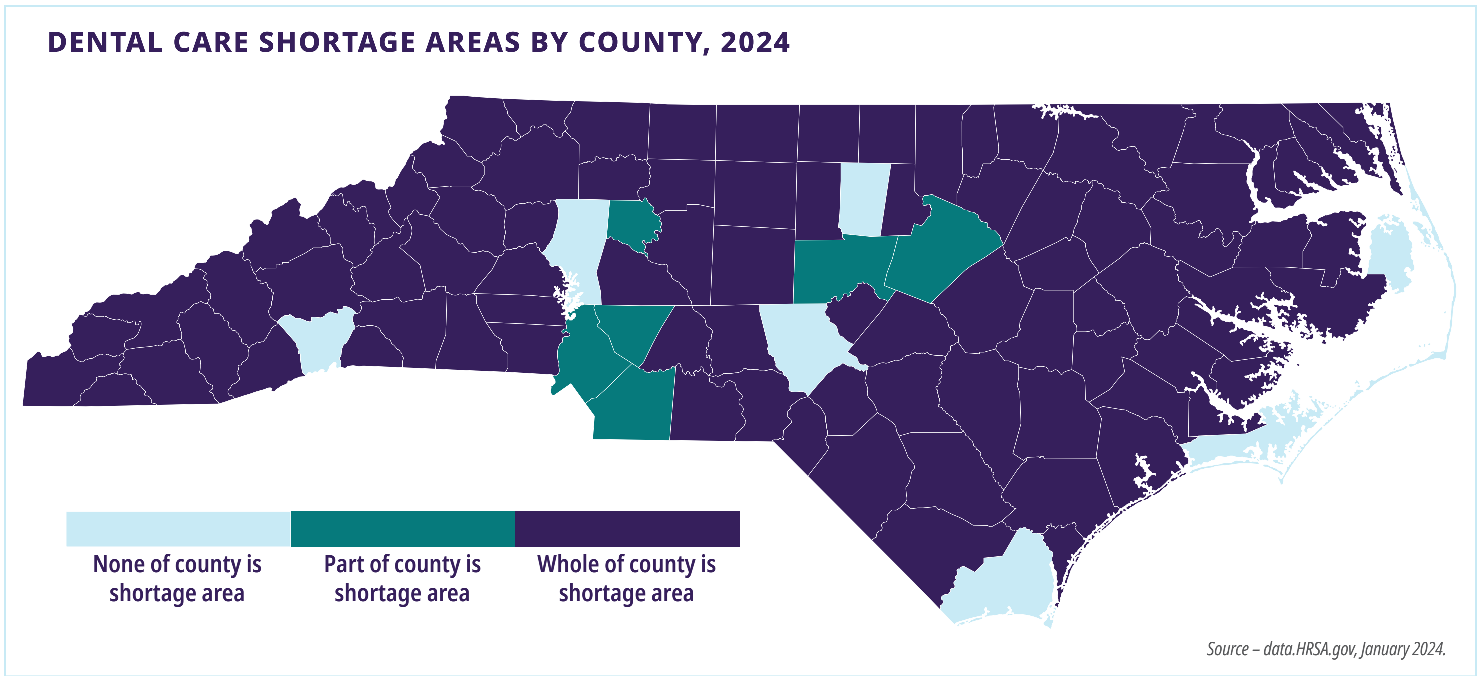
a. Including oral health information in community health worker (CHW) training and certification curricula.
b. Partnering with NC Medicaid to identify and pursue reimbursement for CHW services inclusive of oral health.

***Strategy 8:*** The Foundation for Health Leadership and Innovation (FHLI) should develop actionable strategies to increase oral health provider participation in the NCCARE360 platform and further build community network adequacy for effective oral health resource allocation and referrals.

$ ***Strategy 9:*** The North Carolina Healthcare Association and NC Medicaid should pilot a model for an emergency department referral program to improve access to comprehensive follow-up dental care for individuals who currently receive most or all dental care in emergency departments and urgent care settings.

Many North Carolinians experience barriers in accessing oral health care in traditional dental practice settings. These individuals benefit greatly when, rather than requiring patients to come into a dental office, the oral health system brings its services to the patient in more easily accessible, community-based settings. This is especially impactful as provider shortages and the uneven distribution of providers leave many North Carolinians without access to a traditional dental office within a reasonable distance. As of January 2024, 87 of North Carolina's 100 counties were designated as dental health professional shortage areas.[25] This means that across the state there are individuals who rely on community-based access to oral health care.

### DENTAL CARE SHORTAGE AREAS BY COUNTY, 2024




*Source – data.HRSA.gov, January 2024.*

***Strategy 7:*** **The NC Office of Rural Health and the NC Community College System should collaborate with the NC Community Health Workers Association (NCCHWA) to provide effective community-based education on oral health by:**

a. **Including oral health information in community health worker (CHW) training and certification curricula.**

b. **Partnering with NC Medicaid to identify and pursue reimbursement for CHW services inclusive of oral health.**

### *Desired Result*

North Carolinians have access to oral health information from trusted members of their community.

### *Why does the task force recommend this strategy?*

Low health literacy among North Carolinians is one of the greatest challenges faced by the state's oral health system. In the context of community-based oral health education, increased personal health literacy is most likely to directly facilitate dental disease prevention and care utilization. Personal health literacy can be defined as "the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others."[26] Lower health literacy has been associated with less use of preventive services, delayed diagnoses, reduced adherence to health instructions, poor self-management skills, unfavorable health outcomes, and higher health care expenditures.[27,28] An association was found between higher health literacy and better patient–dentist communication, which correlated with regular dental care utilization and higher levels of self-rated oral health.[28]

### *Context*

Community health workers are "trusted members of the community that facilitate care coordination with health and health-related providers, enhance access to community-based services, address social needs and provide health education."[29] These professionals have direct impacts on the health literacy of their clients and advance health equity for marginalized populations. However, these professionals are largely based in the medical system and thus dental care is not always prioritized within these roles. This workforce must be leveraged in the realm of oral health in North Carolina. Many states are increasingly emphasizing oral health education for these professionals through existing CHW programs.[29] For example, Kansas made the changes to CHW training curriculum to integrate oral health information into each core competency of the CHW training curriculum. This included:

- The role of sugar in tooth decay
- Acid attacks on teeth
- Reducing sugary meals, snacks, and beverages

Oral health and access to dental services among incarcerated and formerly incarcerated populations. In their most recent state oral health plans, both Minnesota and Idaho emphasized the ability of CHWs to implement culturally sensitive oral disease prevention strategies in their communities and provide preventive oral health services like fluoride varnish, oral health risk assessment, and oral health education. North Carolina could do the same.[30,31]

North Carolina also has a Community Dental Health Coordinator (CDHC) program that provides dental assistants or hygienists with additional training. These CDHCs have the combined skills of a CHW, dental auxiliary, and care coordinator. While current staffing shortages require dental hygienists and assistant to primarily focus on providing clinical care, continued investment in these programs through CHW oral health education requirements and reimbursement for CHWs and CDHCs engaged in oral health could improve oral health literacy across the state. This would in turn facilitate better at-home oral health care, utilization of oral health services, and prevention of poor oral health outcomes.

### *How would this impact oral health outcomes?*

By integrating oral health information into CHW training and certification programs, the strategy directly enhances personal health literacy, particularly with regard to oral health. CHWs, as trusted community members, play a pivotal role in care coordination, access to services, and health education. Recognizing the impact of health literacy on preventive measures and care utilization, this strategy aligns with national efforts to bridge gaps in oral health disparities. The proposed collaboration with NC Medicaid further emphasizes the importance of reimbursement for CHW services inclusive of oral health, making oral care a priority within the CHW role. Drawing inspiration from successful programs in other states, such as Kansas, Minnesota, and Idaho, North Carolina can empower CHWs and community dental health coordinators, ultimately leading to improved oral health literacy, increased utilization of preventive services, and a reduction in unfavorable oral health outcomes across the state.

***Strategy 8:*** **The Foundation for Health Leadership and Innovation (FHLI) should develop actionable strategies to increase oral health provider participation in the NCCARE360 platform and further build community network adequacy for effective oral health resource allocation and referrals.**

### *Desired Result*

North Carolinians have access to interconnected and coordinated oral, medical, behavioral, and social care.

### *Why does the task force recommend this strategy?*

Currently, NCCARE360 is underutilized among oral health providers.[32] Encouraging providers to participate in the network helps to facilitate seamless referrals that connect patients to social care services. By integrating social care into oral health practice, providers can address factors such as socioeconomic status, housing conditions, and access to nutrition, which directly influence oral health. This approach not only enhances the effectiveness of oral health interventions but also contributes to a more integrated and comprehensive health care model that considers the broader social context of patients' lives. Connecting patients to social care services ensures a more patient-centered approach, promoting health equity and improving health outcomes across diverse communities.

### *Context*

NCCARE360 is a statewide network that connects health care and human services organizations to allow for a coordinated, community-oriented, person-centered approach to delivering care in North Carolina. It helps providers connect their patients with community resources they need in a way that allows for follow-up and feedback and closes the loop on referrals to improve access to health care and social supports. The wrap-around services provided by NCCARE360, often sustained by social workers, facilitate a "no wrong door" approach that enables patients to access health care and other services through any point of entry (i.e., primary care, homeless shelter, street outreach, emergency department, etc.).

### *How would this impact oral health outcomes?*

Addressing social determinants of health, such as housing, socioeconomic status, and access to nutrition, directly influences oral health. By connecting patients to social care resources, oral health providers can contribute to addressing the root causes of oral health issues, leading to more sustainable and long-term improvements.

Moreover, improved collaboration and communication facilitated by the NCCARE360 platform enhance the coordination of care among health care professionals. This leads to more efficient resource allocation, reduced duplication of efforts, and better-informed decision-making.

$ ***Strategy 9:*** The North Carolina Healthcare Association and NC Medicaid should pilot a model for an emergency department referral program to improve access to comprehensive follow-up dental care for individuals who currently receive most or all dental care in emergency departments and urgent care settings.

### *Desired Result*

North Carolinians who currently seek dental care primarily in emergency departments and urgent care settings are connected to regular dental care providers.

### *Why does the task force recommend this strategy?*

One impact of lack of access to oral health care is patient misutilization of medical care settings to address their dental care needs. This takes the form of patients with dental pain seeking treatment for nontraumatic dental conditions (NTDCs) in emergency departments (EDs) that are unequipped to treat the dental disease that is causing their pain.

### *Context*

A study found that uninsured adults aged 25–34 make up 61% of the ED dental visits in North Carolina, compared to 34% nationally.[33] Additionally, North Carolinians aged 25–34 enrolled in NC Medicaid make up nearly 21% of all ED visits for NTDCs. A 12-month retrospective chart review of visits to one urban teaching hospital ED in North Carolina found that an actual dental procedure was performed at only 10% of the visits.[34] Most patients were treated via pain control and antibiotics, which is the norm in EDs across the state and country. These interventions do not address the underlying dental disease causing these patients' pain, meaning their oral health conditions continue to worsen. These ED visits are opportunities for increased care integration via referral services from EDs to dental care settings. ED–dentist referral system pilot programs in Virginia, Maine, and Michigan saw dental pain ED visit reductions of 52%–72%, demonstrating program effectiveness. To facilitate such a referral system, North Carolina could take advantage of its NC*Notify system within NC HealthConnex, which provides real-time patient admission, discharge, and transfer alerts to members of the care team.[35] It is important to recognize that the success of such an initiative depends on identifying dental facilities with capacity to accommodate additional patients.

### *How would this impact oral health outcomes?*

This policy strategy shifts focus from reactive to preventive dental care. By connecting individuals relying on emergency care to comprehensive dental services, we can improve long-term oral health outcomes, reduce reliance on costly emergency services, and promote education and prevention.

## SPECIAL TOPIC: REGIONALIZATION WITHIN THE ORAL HEALTH SYSTEM

One approach aimed at improving the accessibility and effectiveness of dental care services through care integration is regionalization of oral health services. This strategy seeks to ensure that specific populations—especially those with unique needs, such as individuals with disabilities—receive appropriate and specialized dental care. By regionalizing services, specialty dental care becomes more accessible in rural and underserved areas. At its best, a regionalized system can help foster a network of connected providers, enhancing collaboration and resource sharing, which ultimately leads to a more comprehensive and efficient oral health care system.

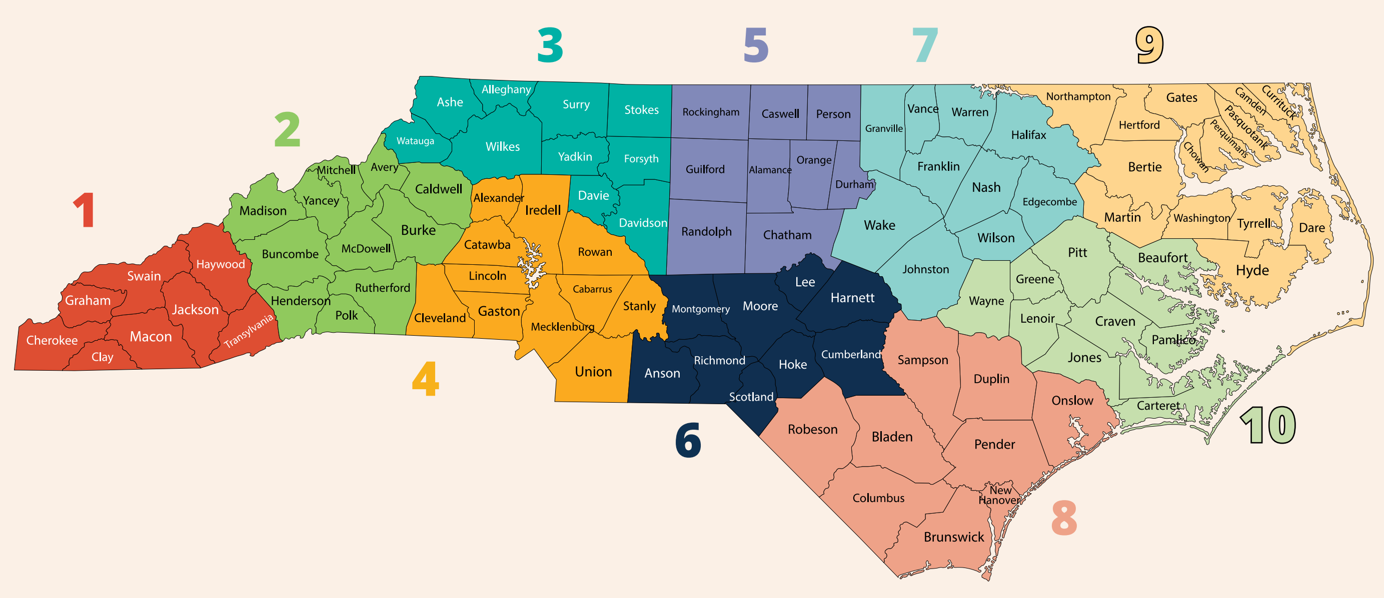
One example of oral health regionalization in North Carolina lies in the regional teams of NC Oral Health Section (OHS) staff that function under the North Carolina Department of Health and Human Services (DHHS). The stratification of these regions is based on Local Health Department regions. As a result, the OHS regional map aligns with the regions used by the North Carolina Association of Local Health Directors, creating a sense of integration with the larger public health system. These regions were incorporated to improve integration as the OHS moved from having frontline staff work on the county level to having two public health dental hygienists work together in each region. The OHS regional map aligns with the regions used by the North Carolina Association of Local Health Directors, creating a sense of integration with the larger public health system. The regional teams work toward the state-level goal of preventing dental issues to advance the oral and overall health of North Carolinians. Through these teams, the OHS encourages care integration through partnerships with health care professionals and other professional organizations, organizations that support improved health in their communities, dental training institutions, and medical training institutions. For example, these regional teams have aided in data collection and dissemination via community assessments that have been used to produce OHS regional oral health snapshots and its 2020–2025 North Carolina Oral Health Improvement Plan.[36] This regionalization can help drive change through care integration in ways that make sense for constituent communities and could be leveraged to address geographical disparities in oral health.

Tennessee has a similar regional system, where the state is divided into 13 rural regions and six metropolitan regions.[37] The dental program in each region is administered by a local Regional Dental Director.

While data are lacking on the effectiveness of regionalization of oral health services on improving outcomes and access to care, North Carolina's regionalized trauma system may serve as an aspirational model for this strategy.[38] Key components of this model include:

- A statewide coordinated and systematic approach for quickly delivering patients to care.
- A continuum of integrated care and cooperation to support a coordinated effort between various facilities and providers across each phase of care.
- Interfacility transport and referral to ensure patients receive timely and appropriate care.

While regionalization of oral health services offers many benefits, it also comes with some potential drawbacks, including challenges with resource allocation, workforce distribution, and administrative complexities. It's important that these challenges are carefully considered and addressed in the planning and implementation stages of regionalizing oral health services to ensure equitable and effective care for all populations.




*Source - https://www.astdd.org/docs/2020-2025-north-carolina-oral-health-plan.pdf"*

## RECOMMENDATION 6

**Strengthen the integration of the NC Medicaid oral health program into broader NC Medicaid initiatives and support interdisciplinary education and partnerships to promote oral health and provide care across the lifespan.**

$ ***Strategy 10:*** The NC Oral Health Collaborative (NCOHC) should:

a. Collaborate with the NC Community College System and NC AHEC to provide sustainable and complementary oral health training to community health workers, based on the curricular design identified by the NCCHWA.

b. Collaborate with the NC Pediatric Society and the NC Medical Society to identify strategies and tools to further integrate oral health into primary care.

c. Collaborate with NC Medicaid, the NC Dental Society, the Old North State Dental Society, the NC Department of Health and Human Services (DHHS) Department of Public Health (DPH) Oral Health Section, pediatric dentists, and dental schools to continue to identify priority oral health outcomes and metrics across the lifespan.

$ ***Strategy 11:*** NC AHEC should facilitate collaboration between medical and dental degree programs and coordination of placement in community interdisciplinary training sites.

***Strategy 12:*** The North Carolina DHHS DPH Oral Health Section should:

a. Expand strategies to further promote its integrative and collaborative education and training programs.

b. Collaborate with other divisions within NC DHHS to include oral health screening measures in existing and future health screening tools.

***Strategy 13:*** The NC Department of Public Instruction and philanthropic organizations should partner to coordinate and identify funding to support expanded access to school-based dental programs.

***Strategy 14:*** The UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families and NC DHHS DPH should support healthy beverage consumption among children and families through education, programs, and policies that support and align with expert recommendations outlined in the Healthy Beverage Consumption in Early Childhood: Recommendations from Key National Health and Nutrition Organizations.

Collaboration among health professionals results in better care coordination and continuity of care for patients, leading to improved health outcomes. As such, interprofessional education and further integration of oral health into NC Medicaid initiatives will help facilitate better health outcomes for North Carolinians, making whole-person health care a reality. Care integration programs that provide wrap-around services to support the health of populations are already being piloted in North Carolina. For example, North Carolina's Healthy Opportunities Pilots (HOP) comprise the nation's first comprehensive program to test and evaluate the impact of providing select evidence-based, non-medical interventions to Medicaid enrollees.[39] Oral health education and prevention services could be added to the services list of this program.

***Strategy 10:*** The NC Oral Health Collaborative (NCOHC) should:

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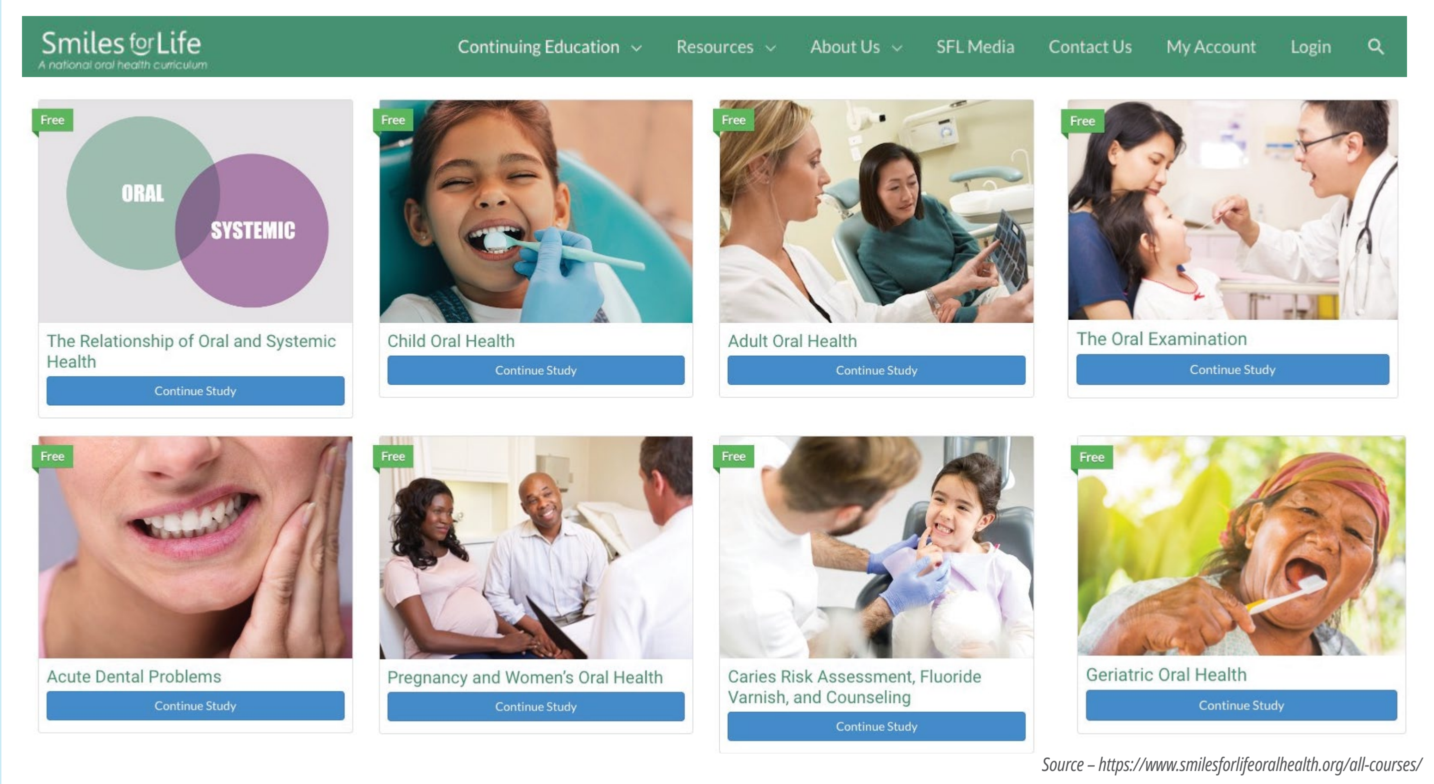
c. Collaborate with NC Medicaid, the NC Dental Society, the Old North State Dental Society, the NC Department of Health and Human Services (DHHS) Department of Public Health (DPH) Oral Health Section, pediatric dentists, and dental schools to continue to identify priority oral health outcomes and metrics across the lifespan.

### *Desired Result*

Strengthened oral health education and integration within North Carolina's health care system.

### *Why does the task force recommend this strategy?*

Interprofessional collaboration among health professionals is vital to the functioning of the health system and the oral health system as a subset of it. The above strategies would help facilitate care integration through provider communication, collaboration, and coordination as well as care navigation services. The NC Medical Society could prioritize oral health in its Community Practitioner Program to support oral health screening opportunities by medical providers. The Smiles for Life curriculum is an example of a nationally regarded provider training tool for integrating oral health into primary care.[40] With increased funding, NCOHC could facilitate these strategies to improve care integration for North Carolinians.



Source – https://www.smilesforlifeoralhealth.org/all-courses/

### *Context*

**Community Health Worker Training and Education**

The North Carolina Community Health Worker Association works with CHWs to advance professional pathways within the workforce, including by supporting ongoing training and certification needs. The NCCHWA provides Standardized Core Competency Training (SCCT) through the community college system.[41] There are also specialty training opportunities designed to deepen knowledge and sharpen CHW skills.[42]

CHW core competencies include:

- Educating individuals on the prevention and management of health conditions and providing health behavior education.
- Knowledge of health topics that impact communities and the ability identify social determinants of health.

Currently, the SCCT and specialty training materials have very little, if any, information on oral health.

**Oral Health–Primary Care Integration**

North Carolina has long been invested in oral health–primary care integration. The state served as an early model for promoting integration with the Into the Mouths of Babes program.[43] While the state has made strides toward improving oral health–primary care integration, there is room for growth and expansion of such efforts. Lessons learned from other states that have adopted various integration strategies provide potential avenues for increasing statewide integration.

**Oral Health–Primary Care Integration**

| INTEGRATION STRATEGY | DEFINITION | EXAMPLES |
|---|---|---|
| Formal Closed Loop Referral Process | Promotes the use of simple agreements to facilitate patient referrals. | • In North Carolina, the Into the Mouths of Babes program promotes access to preventive care for Medicaid-enrolled children in primary care settings. |
| Shared Financing | Collaborative funding mechanisms and coordinated financial models. | • In Minnesota, a nonprofit ACO, HealthPartners, offers a combined medical and dental plan with 100% coverage.<br>• In Oregon, the state has adopted a wide-scale integration model that combines medical, behavioral, and dental care under one global budget. |
| Co-Location of Medical and Dental Providers | Encourages medical and dental providers to work in shared facilities. | • In New Mexico and Colorado, dental hygienists are employed by or co-located in physician practices to provide preventive care to special populations including children, pregnant women, and patients with chronic disease. |

**Data for Informed Care Across the Lifespan**

The links between data collection, prioritization, and informed care are crucial for improving oral health strategies across diverse patient groups. Collecting pertinent data helps identify critical information, and prioritizing it ensures effective utilization. Leveraging existing data informs personalized care by revealing trends, risk factors, and tailored interventions. This data-driven approach is particularly valuable across varied populations, addressing health disparities, socioeconomic factors, and cultural nuances. Access to data across the lifespan is essential for proactive and preventive care, tracking long-term outcomes, and refining strategies based on evolving patient needs. A strong data foundation facilitates precise and individualized care across the lifespan.

### *How would this impact oral health outcomes?*

By providing sustainable oral health training to community health workers, fostering early detection and intervention through the integration of oral health education into primary care, and promoting a comprehensive, collaborative approach with stakeholders to identify and prioritize oral health outcomes. The focus on prevention, increased access to services in underserved communities, and data-driven decision-making further contribute to improving overall oral health outcomes in North Carolina.

$ ***Strategy 11:*** NC AHEC should facilitate collaboration between medical and dental degree programs and coordination of placement in community interdisciplinary training sites.

### *Desired Result*

Enhanced and integrated health care workforce capable of providing comprehensive care across medicine and dentistry.

### *Why does the task force recommend this strategy?*

Interdisciplinary education can help remedy the current siloing of the health system in North Carolina. A study of New York University dental, medical, and nursing students' self-reported attainment of interprofessional competencies found that interdisciplinary education positively influenced interprofessional communication, collaboration, patient communication, and student understanding of patient care roles.

### *Context*

North Carolina has a robust landscape of medical and dental degree programs, reflecting the state's commitment to fostering a well-rounded health care workforce. With four medical schools and three dental schools, the state has established itself as a hub for medical and dental education. These programs emphasize academic excellence, clinical proficiency, and community engagement, producing skilled professionals who contribute significantly to health care advancements.

In response to the evolving landscape of health care, there is a growing emphasis on the importance of interdisciplinary training in post-secondary degree programs across the state. Interdisciplinary training ensures that medical and dental professionals not only excel in their respective fields but also possess the collaborative skills needed to work seamlessly in integrated health care settings. The convergence of medical and dental knowledge is particularly critical as it enhances practitioners' ability to address complex health issues comprehensively. By fostering collaboration between these programs and promoting interdisciplinary training, North Carolina is not only preparing health care professionals to meet the evolving needs of the population but also contributing to a more interconnected and efficient health care system.

### *How would this impact oral health outcomes?*

Collaboration between medical and dental degree programs, coupled with placement in community interdisciplinary training sites, serves to improve oral health outcomes by fostering integrated health care settings, enhancing interprofessional communication, enabling early detection and prevention of oral health issues, and promoting a community-centered approach to address disparities. This integrated approach ensures that health care providers are equipped to view oral health as an integral component of overall health, leading to more effective, coordinated, and culturally sensitive care that contributes to better long-term oral health outcomes.

***Strategy 12:*** The North Carolina DHHS DPH Oral Health Section should:

a. Expand strategies to further promote its integrative and collaborative education and training programs.

b. Collaborate with other divisions within NC DHHS to include oral health screening measures in existing and future health screening tools.

### *Desired Result*

Improved care integration, promotion of whole-person health care, and enhanced knowledge and skills among oral health professionals, primary care providers, and educators.

### *Why does the task force recommend this strategy?*

The North Carolina Oral Health Section has successfully led integrative and collaborative education and training programs including the Dental Public Health Residency Program and Into the Mouths of Babes.[44] By continuing to promote these programs, the NC Oral Health Section can enhance the knowledge and skills of oral health professionals, primary care providers, and educators, fostering a collaborative approach that seamlessly incorporates oral health considerations into broader health initiatives. Recognizing that people generally tend to visit physicians at a higher frequency than they visit the dentist, the strategy of cross-screening patients for having a medical or dental home and for oral and overall health risk factors could be a powerful tool to improve care integration and ensure whole-person health care.

### Context

Oral health screening measures can be built into existing screening tools or be added as a standard component of primary care screening, and vice versa.[45] SDOH screening questions like those seen below could also be incorporated into both medical and dental screenings to alert providers to the health care navigation and social supports their patients may need to have meaningful access to care.[46,47]

**SDOH QUESTIONNAIRE**

| SDOH SECTION | QUESTION | ANSWER OPTIONS |
|---|---|---|
| **Housing/ Utilities** | Within the past 12 months, have you ever stayed: outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's home( i.e. couch-surfing)? | ☐ Yes<br>☐ No<br>☐ Patient refused |
| **Housing/ Utilities** | Are you worried about losing your housing? | ☐ Yes<br>☐ No<br>☐ Patient refused |
| **Housing/ Utilities** | Within the past 12 months, have you been unable to get utilities (heat, electricity) when they were really needed? | ☐ Yes<br>☐ No<br>☐ Patient refused |
| **Financial Resource Strain** | How hard is it for you to pay for the very basics like food, housing, medical care, and heating? | ☐ Not hard at all<br>☐ Not very hard<br>☐ Somewhat hard<br>☐ Hard<br>☐ Very hard<br>☐ Patient refused |
| **Transportation Needs** | In the past 12 months, has lack of transportation kept you from medical appointments or from getting medications? | ☐ Yes<br>☐ No<br>☐ Patient refused |
| **Transportation Needs** | In the past 12 months, has lack of transportation kept you from meetings, work, or getting things needed for daily living? | ☐ Yes<br>☐ No<br>☐ Patient refused |

*Source - Jamie Burgess-Flowers , Lisa de Saxe Zerden & Kelsey Yokovich (2024) The social determinants of health, social work, and dental patients: a case study, Social Work in Health Care, 63:2, 117-130, DOI: 10.1080/00981389.2023.229254*

### How would this impact oral health outcomes?

By broadening education and training initiatives, the Oral Health Section can help support oral health professionals and primary care providers in working collaboratively. This enables early detection, intervention, and prevention of oral health issues. Integrating oral health screening measures into existing and future health screening tools allows for the identification of oral health risk factors during routine health assessments. This strategy promotes timely referrals, comprehensive care coordination, and ultimately contributes to improved oral health outcomes for individuals and communities.

***Strategy 13:*** The NC Department of Public Instruction and philanthropic organizations should partner to coordinate and identify funding to support expanded access to school-based dental programs.

### Desired Result

Improved oral health outcomes among school-aged children, particularly those from underserved communities.

### Why does the task force recommend this strategy?

Tooth decay is the most common chronic disease among children.[48] Around 50% of North Carolina's school children have tooth decay, making it a major public health problem plaguing the future of the state.[49] School-based dental programs across the state provide a range of services to youth populations to combat this statistic.[50] These services include oral health education and promotion, dental screenings and referrals, dental sealants, fluoride mouth rinses or tablets, fluoride varnish applications, case management, and restorative treatment. These programs promote access to dental care, timelier oral health care for children with unmet treatment needs, positive peer modeling, the elimination of barriers (such as lack of transportation and need for parental time off from work), and fewer missed school days for dental appointments. The effectiveness of these programs is borne out in research, as one study found the prevalence of untreated caries decreased by more than 50% over six years of a school-based caries prevention program.[51]

### Context

School-based dental programs have long been recognized as a promising solution to oral health disparities and method of increasing access to dental care in North Carolina.[52] In 2019, The Duke Endowment, the BlueCross BlueShield of NC Foundation, and the BlueCross BlueShield of South Carolina Foundation invested $35 million to support school-based dental programs in North Carolina and South Carolina. The impact of this investment has culminated in 28 school-based programs providing care to 343 schools across both states.[53]

### How would this impact oral health outcomes?

The collaborative strategy between the NC Department of Public Instruction and philanthropic organizations to coordinate funding for expanded access to school-based dental programs aims to enhance oral health outcomes by increasing access, early detection, and preventive measures, particularly for underserved students.

***Strategy 14:*** The UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families and NC DHHS DPH should support healthy beverage consumption among children and families through education, programs, and policies that support and align with expert recommendations outlined in the Healthy Beverage Consumption in Early Childhood: Recommendations from Key National Health and Nutrition Organizations.

### *Desired Result*

Promotion of healthy beverage consumption for children and families.

### *Why does the task force recommend this strategy?*

The excessive intake of sugary beverages is a well-established contributor to tooth decay and cavities, often leading to increased dental visits for restorative procedures. Statewide efforts to reduce sugar-sweetened beverage consumption promote active engagement in preventive oral health measures, aligning with the task force's commitment to improving overall dental health. This strategy not only addresses the immediate oral health concerns related to sugar consumption but also aligns with the broader public health goal of preventing chronic diseases, fostering a healthier population overall. The Healthy North Carolina 2030 report names sugar-sweetened beverage consumption as one of the 21 health indicators related to health disparities in the state.[54]

### *Context*

Overconsumption of sugary beverages and underconsumption of healthy beverages in early childhood can increase risk of diet-related chronic diseases, like dental decay and gum disease.[55] As such, improving public awareness of the potential harms of these habits and highlighting evidence-based recommendations is of utmost importance to improve oral health outcomes and reduce the prevalence of dental disease. There is a history of this promotion of healthy beverage consumption in North Carolina, dating back to as early as 2007 when the NC Division of Public Health's programs targeted this issue, and the state's Eat Smart Move More published recommendations to reduce consumption of sugar sweetened beverages.[56]

### *How would this impact oral health outcomes?*

Reducing sugar-sweetened beverage consumption improves health outcomes by directly addressing a major contributor to oral health issues, decreasing the risk of tooth decay, and aligning with broader health objectives, thereby fostering positive lifestyle changes and preventing chronic conditions.

## SUMMARY OF KEY PANEL FINDINGS AND RECOMMENDATIONS

| | 0-6 months | 6-12 months | 12-24 months | 2-3 years | 4-5 years |
|---|---|---|---|---|---|
| Plain drinking water | not needed | 0.5-1 cups/day | 1-4 cups/day | 1-4 cups/day | 1.5-5 cups/day |
| Plain, pasteurized milk | not recommended | | 2-3 cups/day whole milk | ≤2 cups/day skim or low-fat milk | ≤2.5 cups/day skim or low-fat milk |
| 100% juice | not recommended | | ≤0.5 cups/day | ≤0.5 cups/day | ≤0.5-0.75 cups/day |
| Plant milks/ Non-dairy beverages | not recommended | | medical indication/dietary reasons only | | |
| Flavored milk | not recommended | | | | |
| Toddler milk | not recommended | | | | |
| Sugar-sweetened beverages (SSB) | not recommended | | | | |
| Beverages with low-calorie sweeteners (LCS) | not recommended | | | | |
| Caffeinated beverages | not recommended | | | | |

*Source - https://healthyeatingresearch.org/wp-content/uploads/2019/09/HER-HealthyBeverage-ConsensusStatement.pdf*

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4

# CHAPTER FOUR

## Sustaining a Robust Dental Workforce by Promoting Growth and Retention

North Carolina has a critical opportunity to build and sustain pathways into the oral health profession. The state's capacity to cultivate and maintain a robust workforce within oral health is paramount to effectively addressing the diverse and growing oral health needs spanning every community in North Carolina. The dental team forms the cornerstone of direct patient care and is supported by a broad spectrum of professionals and individuals dedicated to ensuring the delivery and accessibility of comprehensive oral health care services.

### WHO ARE THE MEMBERS OF THE DENTAL TEAM AND WHAT DO THEY DO?

#### *Dentists*

Dentists are primary oral health care providers responsible for diagnosing and treating various dental conditions and diseases. They perform dental examinations; provide treatment plans; carry out procedures such as fillings, extractions, and root canals; and oversee the overall oral health care of patients. Dentists may specialize in various fields like orthodontics, periodontics, endodontics, or oral surgery.

#### *Dental Hygienists*

Dental hygienists focus on preventive oral care and work closely with dentists to maintain oral health. Their tasks include teeth cleaning, applying fluoride treatments, taking X-rays, educating patients about oral hygiene practices, and assisting dentists during procedures.

#### *Dental Assistants*

Dental assistants provide support to dentists and hygienists in delivering patient care and managing the dental office. They prepare patients for procedures, sterilize instruments, assist during treatments, process X-rays, handle administrative tasks, and educate patients on post-treatment care.

The dental team provides direct care to patients and includes dentists, dental hygienists, and dental assistants. The dental team is supported by and connected to the work of professionals in the health and social care sector, including but not limited to physicians, nurses, school counselors, social workers, community dental health coordinators, community health workers, dental navigators, interpreters, lab technicians, dental office managers, patient coordinators, insurance and finance coordinators, business managers, practice administrators, and dental support organizations. This large group of stakeholders directly facilitates the practice of and access to oral health care.[1,2]

## North Carolina's Dentist Workforce

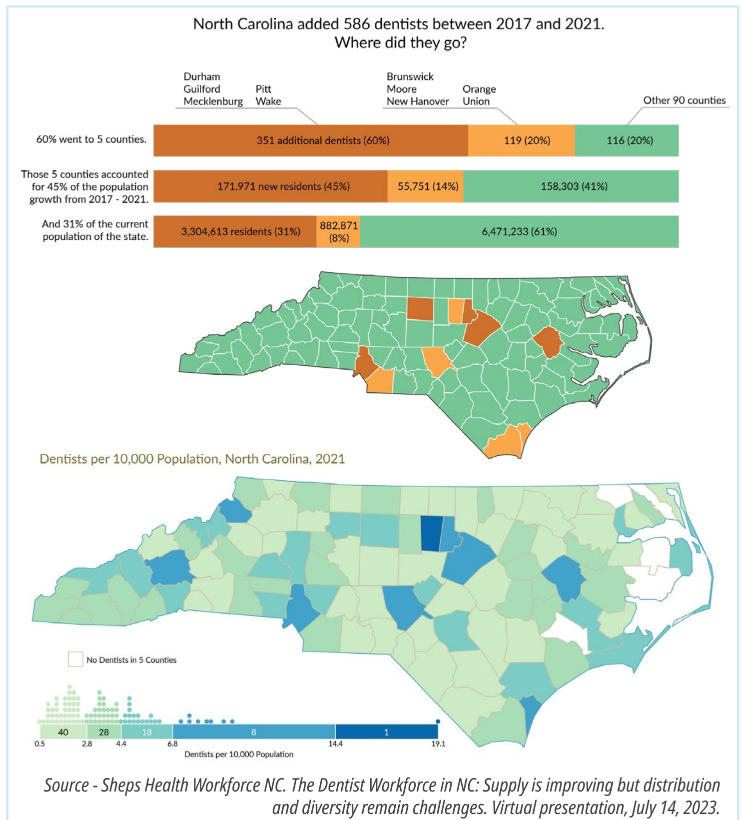
Data that capture the number and distribution of members of the dental team working throughout the state tell us whether we have enough practitioners to appropriately meet the state's oral health needs and if the distribution of practitioners is proportionate to the distribution of the overall population.

The Cecil G. Sheps Center for Health Services Research has data to track the number of dental hygienists and the supply, distribution, and diversity of dentists.[a] Over the past 20 years, North Carolina has gained dentists per capita, but remains below the national average.[3] We have also seen an increase in the number of hygienists. We don't have information about how the ratio of dentists to hygienists has changed, though data from 2022 indicate that there were 587 more hygienists than dentists. While available workforce data indicate improvement, the recommendations and strategies presented in this chapter aim to build upon the forward progress and invest in the oral health workforce that will best equip the state to serve its growing population.

| Dentists Working in Dentistry per 10,000 Population | 2001 | 2013 | 2017 | 2022 |
|---|---|---|---|---|
| United States | 5.7 | 6.0 | 6.1 | 6.1 |
| North Carolina | 4.2 | 4.8 | 5.1 | 5.6 |

*Source: Supply of Dentists in the U.S.: 2001-2022 (XLSX - Published April 2023). American Dental Association, Health Policy Institute analysis of ADA masterfile. Downloaded 6/27/2023 from https://www.ada.org/en/science-research/health-policy-institute/data-center/supply-and-profile-of-dentists*

The state continues to face challenges in improving the distribution and diversity of dentists. Currently, North Carolina dentists are highly concentrated in 9 of 100 counties.[3] Between 2017 and 2021, North Carolina added 586 dentists; 60% of these new dentists went on to practice in only five counties while five additional counties gained 20% and 90 other counties gained the remaining 20% of new dentists despite representing 60% of North Carolina's total population.[3]




*Source - Sheps Health Workforce NC. The Dentist Workforce in NC: Supply is improving but distribution and diversity remain challenges. Virtual presentation, July 14, 2023.*

[a] *There is limited workforce for dental assistants due to variability in training and certification options.*

## Early Exposure to Oral Health Professions

Collaborative solutions that aim to increase early exposure to the oral health professions in North Carolina can play a pivotal role in fostering a robust and diverse dental workforce. Researchers and educators have long recognized the middle grades to be an essential and opportune time to introduce career exposure.[4] North Carolina's oral health workforce could benefit from more concerted efforts to develop interest in the oral health profession by engaging students early. There are existing early exposure initiatives that integrate oral health education programs into school curricula and involve collaborations between educational institutions and oral health organizations. These opportunities can be expanded by offering mentorship programs and providing career-oriented opportunities in oral health settings. Introducing students to the dental profession at an early stage not only generates interest and awareness but may also inspire young North Carolinians to pursue careers in dentistry, dental hygiene, dental assisting, and related fields. This approach not only addresses the recruitment challenges but also promotes the cultivation of a well-prepared, motivated, and diverse workforce that can effectively meet the oral health needs of North Carolina's communities.

## Dental Health Training and Education Programs

Dental education programs, including dental schools, dental hygiene, and dental assisting programs, serve as foundational pillars in developing and nurturing North Carolina's oral health workforce. Dental schools offer rigorous academic coursework and clinical training, equipping dentists to deliver quality care. Currently, there are three dental schools in North Carolina: the UNC Adams School of Dentistry, East Carolina University (ECU) School of Dental Medicine, and The High Point University Workman School of Dental Medicine. Forty percent of all dentists in the state graduate from The UNC Adams School of Dentistry, and graduates from ECU University School of Dental Medicine are almost twice as likely than those from all other programs to serve in rural areas.[3]

Dental hygiene and dental assisting programs cater to specialized roles within the dental team, cultivating professionals who are adept at providing preventive care and patient education as well as assisting during treatments. Dental hygienists can receive training at any of the 13 Commission on Dental Accreditation (CODA)-approved dental hygiene programs in the state. These include 12 Associate of Applied Science degree programs at community colleges throughout the state and one baccalaureate program at the University of North Carolina Adams School of Dentistry.[5] Training and education options for dental assistants are more variable.[6] North Carolina does not certify dental assistants and there are two classifications for this role. Classification is determined by a combination of experience and training, which may include an ADA-accredited dental assisting program.

### LICENSING OF THE ORAL HEALTH TEAM IN NC

#### *Becoming a Dentist*

To become a dentist licensed in the state of North Carolina, the applicant must apply through the North Carolina State Board of Examiners. Currently, North Carolina does not participate in any interstate recognition of dental licensure initiatives. A dentist who is licensed by another state can practice in the state of North Carolina with a special provisional licensure if they:

- Have been licensed in another state for two years.
- Pay a fee of $100.00.
- Pass required exams with a score of 80 or higher.
- Submit all necessary documents and the application.
- Practice under the direct supervision of a licensed dentist in North Carolina.

This provisional license is only valid for one year and cannot be renewed. In that time, a North Carolina license must be obtained to continue practicing in the state.

#### *Becoming a Dental Hygienist*

For a dental hygienist to become licensed in the state of North Carolina, they can apply for licensure by credential, military endorsement, or a written and clinical exam. For credential licensure, the following are required:

- An application accompanied by identification.
- Dental Hygiene Board exam scores.
- All undergraduate school transcripts.
- Current CPR certification.
- Signed release form and fingerprint card from a background check.
- A completed and signed affidavit verifying employment.
- A fee of $750.00.
- An official transcript from dental hygiene school.[7]

#### *Becoming a Dental Assistant*

North Carolina does not currently have any license for dental assistants. There are two classifications of dental assistants based on experience and education, and it is up to the employer to determine the dental assistant's classification and verify education or experience.[6]

#### *Historical Context of License Reciprocity*

The National Center for Interstate Compacts helps to advocate for interstate licensures for health care professionals like nurses, physical therapists, physicians, emergency medical technicians, and psychologists. Currently, North Carolina participates in two of these licensure compacts: nursing and physical therapy. North Carolina currently does not participate in smaller compacts established for teachers, physician assistants, massage therapists, cosmetologists, social workers, and dentists and dental hygienists.

Interstate compacts arose in response to the long wait times for obtaining new licensure in a different state and the need for oral health workers. As society becomes more mobile and health care continues to move into the virtual space, this gives practitioners more ability to practice in various states without having to apply for multiple licenses. Compacts currently operate under an agreement of a certain standard of care, telehealth appointments must be conducted in the same state in which the patient resides, and provider participation in interstate licensure is completely voluntary. These interstate compacts allow for individuals who are required to move or travel a fair amount for their profession to easily practice in multiple states without having to undergo a time-consuming process of obtaining a new license for each state.

Tennessee, Iowa, Wisconsin, and Washington are the only states currently participating in the dentist and dental hygienist interstate compact, with legislation to join the compact pending in Minnesota, Nebraska, Kansas, Missouri, Indiana, Ohio, Pennsylvania, Maine, New Jersey, Colorado, Indiana, and Virginia. North Carolina has no pending legislation to join the compact at this time.[8,9]

## Professional Development and Workforce Sustainability

Investing in the existing oral health workforce while also fostering the growth of future professionals through pathway development programs is an important strategy for reinforcing and securing the future of North Carolina's oral health care workforce. Professional development and workforce sustainability initiatives are central to this comprehensive approach, emphasizing continuing education, skill refinement, and mentorship programs aimed at cultivating the expertise and resilience of current dental practitioners. Current programs supporting these goals include NC AHEC's dental student training and continuing professional development programs.[10] To best serve the state's growing population, it is important to keep North Carolina's trained dental professionals practicing in the state. We have been successful in retaining dentists in the past; 93% of dentists active in 2015 remained active in North Carolina in 2020.[11] Continued commitment to supporting and retaining North Carolina's trained dental professionals is essential to ensuring a sustainable and proficient oral health workforce.

### RECOMMENDATION 7

**Increase the number and improve distribution and diversity of members of the dental team in North Carolina with focus on Medicaid-serving and rural practices.**

***Strategy 15:*** The North Carolina State Education Assistance Authority should evaluate the rules and regulations for the Forgivable Education Loans for Service (FELS) program and develop a plan to eliminate repayment requirements that might adversely impact dental student participation.

***Strategy 16:*** The North Carolina DHHS DPH Oral Health Section should:

a. Seek funding to lead a collaborative effort to develop, deploy, monitor, and assess efforts to address oral health workforce issues.
b. Collaborate with the North Carolina Dental Society, NC Medicaid, the North Carolina Office of Rural Health, and the NC DHHS DPH Oral Health Section to develop and deploy an education strategy to increase awareness of oral health workforce challenges among the general assembly; local, state, and federal elected officials; economic development officials; and the public.
c. Provide data on the diversity of the current and projected workforce and convene oral health professionals, along with professionals from other sectors, to identify innovative and evidence-based strategies for retention.

***Strategy 17:*** The NC General Assembly should increase funding to the NC Community College System to expand program capacity for dental hygienists and assistants. Strategies include increasing the number of community college oral health faculty and developing a full-time position responsible for supporting new and expanded oral health program capacity for dental hygienist and assistant training and professional development.

$ ***Strategy 18:*** TNC AHEC should establish a statewide, full-time position dedicated to supporting dental health professional development as part of whole-person care, including continuing education, residency training, and oral health care in non-dental settings.

***Strategy 19:*** The North Carolina Oral Health Collaborative, the NC DHHS DPH Oral Health Section, the North Carolina Dental Hygienists' Association, the North Carolina Dental Assistants Association, and the North Carolina Dental Society should collaborate to identify and implement career ladders for dental hygienists and dental assistants.

***Strategy 20:*** The UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families should periodically convene the UNC Adams School of Dentistry, East Carolina University (ECU) School of Dental Medicine, the High Point University Workman School of Dental Medicine, and North Carolina community colleges to identify best practices to address challenges and opportunities to increase the diversity of the oral health workforce.

Increasing the number and enhancing the distribution and diversity of the dental workforce in North Carolina are critical priorities for addressing oral health disparities and ensuring equitable access to care. As noted on page 24 of this chapter, North Carolina dentists are highly concentrated in 9 of the 100 counties in the state, and in 2021, 60% of new dentists went on to practice in only five counties.

In addition, the state currently faces a significant disparity between its demographic composition and the diversity of its dental workforce. Only 11% of dentists and 7.7% of dental hygienists in North Carolina identify as "underrepresented minorities".[2] Meanwhile, data from the 2022 U.S. Census estimate that approximately 30.1% of North Carolina's population identifies as non-White.

Looking ahead, North Carolina's population is projected to become even more diverse by 2050, with estimates indicating that 48% of residents will identify as non-White.[12] Addressing the demographic discrepancy in oral health care is crucial, as racial and ethnic diversity are closely linked to improved patient care, better communication between providers and patients, and increased access to essential oral health services.[13] Disparities in oral health outcomes across racial and ethnic lines persist, reinforcing the necessity of a diverse dental workforce that can effectively address these inequities.

Several key factors influence the recommendation to improve the diversity of the dental team. We must continue to invest in initiatives that focus on expanding opportunities for higher education among historically marginalized and underrepresented populations so that those who wish to enter the oral health care field can be well prepared to do so. Community engagement programs, such as school-based initiatives and outreach efforts to raise awareness about oral health's significance in overall well-being, play an important role in this decision-making process for those who might not otherwise see the oral health professions as an option. There are initiatives of varying scales at the national, state, and local level that are working to actively address the lack of diversity in oral health professions. Funding and leveraging such programs and resources is crucial in forging a more inclusive and representative dental workforce in North Carolina.

***Strategy 15:*** The North Carolina State Education Assistance Authority should evaluate the rules and regulations for the Forgivable Education Loans for Service (FELS) program and develop a plan to eliminate repayment requirements that might adversely impact dental student participation.

### *Desired Result*

Increase access to dental education programs and reduce financial hardship for practicing dental providers.

### *Why does the task force recommend this strategy?*

Addressing the challenges posed by current FELS rules would encourage more dental students to remain and serve within the state, contributing to enhanced access to care and a more robust dental workforce. The task force recommends evaluating and streamlining the FELS program to ensure its accessibility and effectiveness in meeting students' needs and the state's health care demands.

### *Context*

The Forgivable Education Loans for Service (FELS) program was established by the North Carolina General Assembly in 2011 to provide forgivable loans to qualified students who are committed to working within the state to alleviate employment shortages in critical sectors.[14] Both dental hygienists and dentists qualify for this program, which aims to respond to current and future employment shortages, yet its limitations present barriers to student participation.

Students who sign up for FELS and receive loans through the program but fail to secure a "qualified position" after graduation are bound to repay loans without the benefit of forgiveness. Moreover, the inability to combine FELS with other loan forgiveness programs restricts students' options, potentially leaving them burdened with debt despite committing to service in North Carolina. There is ambiguity surrounding the definitions and specifications of the "qualified positions" that grant forgiveness under the FELS program rules. Students enrolled in FELS are required to have positions approved by the North Carolina State Education Assistance Authority. However, the criteria for qualifying positions are not publicly available, which inhibits students' ability to make informed decisions prior to applying and enrolling in the program.[15]

### *How would this impact oral health outcomes?*

Revising FELS requirements to ensure forgiveness upon securing qualifying employment would eliminate ambiguity and provide clear guidelines, allowing more dental students to graduate and commit to serving in high-need areas within North Carolina. This revision would increase access to dental care and improve the distribution of dental professionals within communities, significantly improving oral health outcomes.

***Strategy 16:*** The Center on the Workforce for Health should:

a. Seek funding to lead a collaborative effort to develop, deploy, monitor, and assess efforts to address oral health workforce issues.

b. Collaborate with the North Carolina Dental Society, NC Medicaid, the North Carolina Office of Rural Health, and the NC DHHS DPH Oral Health Section to develop and deploy an education strategy to increase awareness of oral health workforce challenges among the general assembly; local, state, and federal elected officials; economic development officials; and the public.

c. Provide data on the diversity of the current and projected workforce and convene oral health professionals, along with professionals from other sectors, to identify innovative and evidence-based strategies for retention.

### *Desired Result*

North Carolina has an adequate oral health workforce to appropriately meet the dental care needs of its residents.

### *Why does the task force recommend this strategy?*

The Center on the Workforce for Health is positioned to play a key role in addressing oral health workforce challenges in North Carolina. This strategy is predicated upon resource allocation from a combination of sources—including state appropriations, philanthropic funding, and/or state agency investment—to the Center to spearhead collaborative development, monitoring, and assessment efforts aimed at resolving oral health workforce issues. By partnering with prominent organizations like the North Carolina Dental Society, NC Medicaid, North Carolina Office of Rural Health, and NC DHHS DPH Oral Health Section, the Center aims to educate various stakeholders—including elected officials, economic development authorities, and the public—about the critical challenges faced by the oral health workforce.

The desired result of this strategy is to gain a comprehensive understanding of oral health workforce projections and demographics. Access to such data enables informed decision-making and optimized resource allocation, establishing a direct link between workforce numbers and improved oral health outcomes. Currently, while some data on the North Carolina oral health workforce exist, a collective effort spearheaded by a dedicated organization like the Center is necessary to centralize and expand this information.

### *Context*

In early 2021, NC AHEC, NCIOM, and the Sheps Center Program on Health Workforce Research and Policy began developing a concept for a statewide center focused on the collaborative and comprehensive development of North Carolina's workforce for health. These coordinating organizations have collected and integrated feedback from state health care leaders on the priority goals, activities, and organizational structure of a North Carolina Center on the Workforce for Health.

Upon its launch in 2024, the Center will provide a forum for health employers, workers, educators, regulators, policymakers, and others throughout North Carolina to convene, discuss challenges and opportunities, share best practices and lessons learned, identify potential solutions and metrics for success, and monitor progress toward addressing health workforce challenges. Center goals include:

- Ensure that efforts to address health workforce issues persist over time, which will ultimately better align the supply of health workers with the demand for those workers.
- Convene employers, educators, workers, regulators, and others to develop, deploy, monitor, and assess efforts to address health workforce issues. Convenings will be at the state and local levels with bi-directional information flow.
- Gather and make available relevant data and policy, analyze, and synthesize that information to make it actionable, and provide technical assistance and guidance to interested parties when acting to address health workforce issues.
- Provide a forum for interested parties to share best practices and lessons learned.

Currently, data on North Carolina's dental workforce is limited and distributed across numerous sources. Collaborating with similar agencies from other states and referencing existing resources, like the University of Washington's Center for Health Workforce Studies or state-specific oral health surveillance systems such as those in Minnesota and Oregon, can offer insights and models to emulate in North Carolina.[16–19] The Center on the Workforce for Health will provide a forum for learning, an opportunity for data development on oral health workforce indicators, and the convening structure to disseminate these data and build to action.

### *How would this impact oral health outcomes?*

Health care studies demonstrate that a robust supply of providers is associated with lower mortality rates and improved patient outcomes. Similarly, an expanded dental workforce correlates with better health outcomes, especially in children. Establishing and enhancing initiatives to better understand the data related to diversifying, retaining, and strategically distributing oral health professionals across North Carolina is fundamental to fostering healthier communities.[20–22]

***Strategy 17:*** The NC General Assembly should increase funding to the NC Community College System to expand program capacity for dental hygienists and assistants. Strategies include increasing the number of community college oral health faculty and developing a full-time position responsible for supporting new and expanded oral health program capacity for dental hygienist and assistant training and professional development.

### *Desired Result*

Increase access to dental education programs.

### *Why does the task force recommend this strategy?*

Increasing funding to the NC Community College System will increase program capacity for training dental hygienists and assistants. Doing so will support the development of new programs while expanding existing ones. Currently, limited faculty and program capacity hinder the expansion of these critical training programs, ultimately impacting the availability of skilled professionals in the oral health workforce.

The desired outcome of this strategy is to strengthen the infrastructure necessary to train more dental hygienists and assistants, thereby meeting the growing demand for oral health professionals in North Carolina. The task force recommends this approach due to a shortage of faculty and the limited capacity of existing programs.

### *Context*

There is a gap between the number of community colleges offering dental hygiene and assisting programs compared to other health-care-related disciplines. Currently, out of 58 community colleges in the state, only 20 offer dental assisting programs and 13 provide dental hygiene training.[23] This is in stark contrast to programs in administrative health care, EMS, and nursing, indicating an unmet need in oral health education.

Research and resources from organizations like the American Dental Education Association (ADEA) shed light on the challenges and opportunities for oral health instruction, including the national decline in the number of full-time faculty for dental hygiene and assisting.[24–26] Findings from the 2020 ADEA Survey of Allied Dental Program Directors also identified lack of racial and ethnic diversity among faculty in the 2019–2020 academic year.[27] These insights help to highlight the landscape, needs, and opportunities associated with increasing faculty and program capacity for oral health training programs.

### *How would this impact oral health outcomes?*

Increasing funding for expanded training programs in community colleges would impact oral health outcomes by addressing the shortage of trained dental hygienists and assistants, potentially leading to improved access to oral health services for communities across North Carolina. Strengthening the pipeline of skilled professionals in oral health care contributes to better oral health outcomes by ensuring a well-trained workforce capable of meeting the diverse needs of the population.

***Strategy 18:*** NC AHEC should establish a statewide, full-time position dedicated to supporting dental health professional development as part of whole-person care, including continuing education, residency training, and oral health care in non-dental settings.

### *Desired Result*

A comprehensive and coordinated approach for maximizing existing programs, fostering interprofessional education, and addressing continuing education needs and gaps to enhance overall oral health outcomes across the state.

### *Why does the task force recommend this strategy?*

Currently, there is no statewide position in North Carolina that supports oral health in this capacity. However, NC AHEC has positions that serve similar purposes in medicine and nursing.[28,29] By designing a statewide position for oral health that is modeled after these existing positions, the state will benefit from having a dedicated NC AHEC staff member who is responsible for:

- Advising NC AHEC program leadership on methods of disseminating and enhancing access to higher education in oral health to help address workforce and oral health care needs across North Carolina.
- Serving as a liaison between North Carolina's dental schools and community college programs.
- Assisting in enhancing the efforts of dental residency programs.
- Providing leadership and support for NC AHEC oral health initiatives and leading continuing professional development.
- Developing and deploying interprofessional education and interprofessional practice educational programming for statewide use.

### *Context*

To ensure viability and sustainability, this new position and any subsequent programs associated with this position, should be funded by the North Carolina General Assembly or philanthropy. A central part of NC AHEC's mission is to recruit, train, and retain the necessary workforce to create a healthy North Carolina. This mission has been supported by state funding and the NCGA for over 50 years.[30] More specifically, NC AHEC has historically been funded to support statewide health care workforce needs. There has been significant investment in the mental health and nursing workforce. Oral health and dentistry are currently integrated into NC AHEC's programs that support health careers, community-based student services, continuing professional development, and library services. There is an opportunity to expand this successful integration by creating a position designed to focus on building and expanding NC AHEC programs specific to oral health.

### *How would this impact oral health outcomes?*

Establishing a full-time statewide position dedicated to supporting dental health professional development within NC AHEC has the potential to significantly impact health outcomes in North Carolina. This strategy is designed to foster a comprehensive and coordinated approach to oral health care, covering aspects such as continuing education, residency training, and oral health care in non-dental settings.

The creation of a dedicated position underscores a commitment to addressing the unique needs of the oral health workforce, providing specialized guidance to NC AHEC leadership, and serving as a liaison between dental education programs at universities and community colleges. The intended goal of this approach is improved educational strategies, better-prepared oral health professionals, and enhanced collaboration among different health care disciplines through interprofessional education and practice.

By supporting dental residency programs and leading oral health initiatives, the strategy aims to elevate the quality of oral health care across the state. The focus on continuing professional development ensures that oral health professionals stay up to date on the latest advancements, contributing to a more skilled and adaptable workforce. A dedicated position for dental health professional development, similar to existing positions for medicine and nursing, could bridge existing gaps, address workforce shortages, and ultimately lead to improved oral health outcomes for North Carolinians.

***Strategy 19:*** The North Carolina Oral Health Collaborative, the NC DHHS DPH Oral Health Section, the North Carolina Dental Hygienists' Association, the North Carolina Dental Assistants Association, and the North Carolina Dental Society should collaborate to identify and implement career ladders for dental hygienists and dental assistants.

### *Desired Result*

North Carolina retains and develops the dental assisting and hygiene workforce in a manner that allows individuals to visualize and pursue upward mobility, enhancing their job satisfaction and commitment to their professions.

### *Why does the task force recommend this strategy?*

The task force recommends this strategy to support retention efforts by fostering increased opportunities and career contentment. However, challenges exist in the current landscape for upward mobility in these fields. For instance, in North Carolina, dental assistants are classified into two levels: Dental Assistant I (DAI) and Dental Assistant II (DAII). Comparatively, other states have more comprehensive career ladders, with three to five tiers/levels for dental assistants, including roles like Expanded Function Dental Assistant (EFDA) and Registered Dental Assistant (RDA). Resources from the Dental Assisting National Board (DANB) and the Pennsylvania Coalition for Oral Health outline the multifaceted nature of career advancement in dental assisting, presenting varied tiers and additional roles available in different states.[31,32]

### *Context*

"Career ladder" refers to the progressive sequence of roles that individuals hold throughout their professional lives. This strategy aims to enhance workforce development by facilitating opportunities for dental hygienists and assistants to achieve their full potential and establish a clear professional identity. Workforce development thrives on individuals' capacity to ascend through career pathways, enabling them to explore progressively more complex and challenging roles and expand their skill sets. Existing opportunities for career advancement for dental hygienists and assistants offer room for further development and expansion. Compensation is an important aspect of career development and advancement. Years of experience, education and training, and location are all factors that determine salary for dental assistants and hygienists. In North Carolina, certified dental assistants working full time earn an average of $48,000 annually.[33] The average full-time income for dental hygienists is around $60,000. Career advancement can lead to higher pay, which, in turn, increases economic security and mobility for individuals working in these professions.

### *How would this impact oral health outcomes?*

Creating clear and comprehensive career pathways can significantly impact oral health outcomes. By ensuring adequate numbers of hygienists and assistants, especially in underserved areas, dental offices can be fully staffed, leading to increased access to dental care for more patients. A well-structured career ladder enables professionals to advance their roles and responsibilities, contributing to a more robust oral health workforce and improved oral health outcomes across communities.

***Strategy 20:*** The UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families should periodically convene the UNC Adams School of Dentistry, East Carolina University (ECU) School of Dental Medicine, the High Point University Workman School of Dental Medicine, and North Carolina community colleges to identify best practices to address challenges and opportunities to increase the diversity of the oral health workforce.

### *Desired Result*

Students from diverse racial and social backgrounds have equitable opportunities to enroll in and successfully graduate from North Carolina's oral health education programs.

### *Why does the task force recommend this strategy?*

The task force recommends this strategy recognizing the necessary role of diversity in fostering a robust and inclusive oral health workforce. Addressing diversity gaps within educational institutions ensures broader representation and access to opportunities for aspiring oral health professionals.

By fostering collaboration among educational institutions and community colleges, we can ensure that North Carolina's oral health programs are welcoming, inclusive, and reflective of the diverse communities they serve. Ultimately, this strategy aims to create a more diverse, representative, and adept oral health workforce, contributing to improved oral health outcomes for the population of North Carolina.

### *Context*

**DENTAL PUBLIC HEALTH INITIATIVE FOR HEALTHY CHILDREN AND FAMILIES**

The Dental Public Health Initiative for Healthy Children and Families (DPHI) is a newly funded program of the UNC Gillings School of Global Public Health that seeks to:

- Assure that students in the Gillings master's, undergraduate, and doctoral programs understand the importance of good oral health to total body health so they can support effective strategies regardless of the career path they pursue.
- Develop a joint master's degree with the Adams School of Dentistry so that dental practitioners can support dental public health prevention and access-to-care issues.
- Participate in partnerships with the Division of Public Health, Medicaid and other insurers, the North Carolina Oral Health Collaborative, the Adams School of Dentistry, foundations, the North Carolina Dental Society, primary care providers, such as family physicians, pediatricians, and OB-GYNs, and others to achieve policy and reimbursement outcomes to improve access to care and prevent dental disease.
- Conduct demonstration pilots for innovative care and payment models in rural areas, school-based programs, and safety-net providers including primary care centers, free clinics, and local health departments.
- Evaluate emerging payment and managed care efforts, such as Medicaid managed care.
- Develop continuing education opportunities on preventive and population-based dentistry for practicing oral health care providers as part of licensure and/or credit toward public health degrees.
- Provide cutting-edge research into population-based prevention and treatment practices, evaluating a number of policy and program implementation strategies including access to care in alternative sites such as school-based programs.
- Develop resources from private and federal sources including federal grants, foundation opportunities, and individual philanthropy to support local and statewide prevention and access-to-care strategies.
- Secure internship placements in organizations working on improving oral health.

This strategy highlights the opportunity to replicate best practices identified by other educational institutions across the country. The DPHI is well-positioned to convene dental schools and other partners to improve connections, identify shared goals, and facilitate collaboration. Dental school diversity is growing and school committees across the country are collaborating to promote diversity, equity, and inclusion.[34,35] However, while there are now more Asian and Hispanic dental students, the percentage of Black students remains the same.[36] In recent years, several dental schools across the country have been recognized for their success in increasing the diversity of their student body. For example, between 2010 and 2023, Tufts University School of Dental Medicine was able to increase the number of female students from 50.5% to 61.7%. During this time, the number of Black students grew from 4.2% to 15.3% and the number of Hispanic students increased from 5.1% to 12%.[34] The University of Colorado School of Dental Medicine has also increased the number of female students from 38.6% in the 2009–2010 academic year to 57.4% in the 2022–2023 academic year.[34]

### *How would this impact oral health outcomes?*

Implementing this strategy holds significant potential to positively impact oral health outcomes. A diverse oral health workforce not only enriches educational environments but also enhances cultural competency in patient care. Research and experiences from other institutions indicate that diversity and inclusion initiatives strengthen the educational experience, improve patient outcomes, and foster a more inclusive environment for learning and practice within the oral health field.

**RECOMMENDATION 8**

**Expand scope of practice for dental hygienists and dental assistants to increase clinical impact, effectiveness, and efficiency.**

***Strategy 21:*** The North Carolina Dental Society, North Carolina Oral Health Collaborative, the North Carolina Dental Hygienists' Association, the NC Dental Assistant Educators' Association, and the North Carolina Dental Assistants Association should partner to convene a group to examine scope of practice for dental hygienists and assistants by:

a. Engaging dental hygienists and assistants to better understand professional needs and motivations.
b. Conducting research to analyze regulation, supervision, and scope of practice for dental hygienists and assistants by state.
c. Ensuring expanded dental hygienist and assistant representation on the North Carolina Dental Society Council for Prevention in Oral Health.

The scope of practice for dental hygienists and dental assistants varies significantly, influenced by state regulations and educational pathways. Dental hygienists typically require more extensive education focused on preventive oral health care, including cleaning, patient education, and sometimes administering local anesthetics and radiography. Dental assistants have shorter training periods and primarily assist dentists during procedures, handle equipment sterilization, and may perform basic oral health tasks like applying sealants or fluoride, depending on the state. In North Carolina, there are two classifications of dental assistants: Dental Assistant I and Dental Assistant II.[37]

Policy changes concerning the scope of practice for dental hygienists and dental assistants have been used to address challenges in oral health care access and efficiency. Some states have broadened the permissible activities for dental hygienists, allowing them to perform more tasks independently, especially in underserved areas. This includes administering local anesthetics and engaging in preventive care without direct supervision. States with this type of expansion include Colorado, Oregon, Texas, Virginia, and Iowa.[38]

Meanwhile, expanded functions for dental assistants authorize them to perform more complex dental tasks, like applying sealants, fluoride treatments, and, in some states, restorative functions, which traditionally fell under the purview of dentists. States allowing expanded functions for dental assistants include Florida, Illinois, Maryland, and Wyoming, among others.[39–41]

***"The most efficient dental care delivery system is one where all the members of the dental team are practicing at the top of their training and licensure. This assures that all dental professionals providing direct care are performing the procedures that they are best suited to do."***

North Carolina has implemented notable changes in the scope of practice for dental hygienists. These changes primarily focus on expanding the range of permissible activities, especially for dental hygienists, allowing them to provide a broader array of services under specified conditions. This includes greater autonomy in preventive and diagnostic procedures and the ability to work in more diverse settings (e.g., public schools; nursing homes; rest homes; long-term care facilities; rural and community clinics operated by federal, state, county, or local governments in areas identified as dental access shortage areas).[42] The goal of these changes is to increase access to dental care, particularly in underserved areas, and to utilize the full extent of dental professionals' training and skills.

**Dental Assistant vs. Dental Hygienist, Activities and Training Requirements**

| Payment Model | Dental Assistant | Dental Hygienist |
|---|---|---|
| **Activities** | • Greeting and checking in patients<br>• Preparing and sterilizing exam rooms and instruments<br>• Taking dental X-rays<br>• Assisting the dentist with procedures<br>• Giving patients post-treatment care instructions | • Reviewing patients' health and dental history<br>• Removing plaque, tartar, and stains<br>• Applying sealants and fluoride treatments<br>• Screening for oral conditions such as tooth decay, gingivitis, periodontitis, and cancer<br>• Taking and interpreting dental X-rays<br>• Educating patients on dental health, proper hygiene, and nutrition |
| **NC Requirements** | Dental Assistant I: Successfully complete a North Carolina Board-approved seven-hour course in nitrous oxide–oxygen conscious sedation.<br>Dental Assistant II: Cardiopulmonary Resuscitation (CPR) certification AND<br>• Successfully complete a CODA-accredited dental assisting program or one academic year or longer in a CODA-accredited dental hygiene program, OR<br>• Pass the national DANB Certified Dental Assistant (CDA) exam, OR<br>• Complete a three-hour course in sterilization and infection control and complete a three-hour course in dental office emergencies and, after completing these courses and Item 1 above, receive training in any dental delivery setting and perform the functions of a Dental Assistant II under the direct control and supervision of a licensed dentist. | • Graduation from a CODA-approved dental hygiene program<br>• Pass national and state exams:<br>  * National Board of Dental Hygiene Examination<br>  * American Board of Dental Examiners Exam<br>• Licensure by the North Carolina State Board of Dental Examiners |

*Sources: https://www.danb.org/news-blog/detail/blog/difference-between-dental-assistant-dental-hygienist; https://www.danb.org/state-requirements/detail/north-carolina-state-requirements; https://oralhealthnc.org/how-to-become-a-dental-hygienist-in-north-carolina/. CODA = Commission on Dental Accreditation; DANB = Dental Assisting National Board*

***Strategy 21:*** The North Carolina Dental Society, North Carolina Oral Health Collaborative, the North Carolina Dental Hygienists' Association, NC Dental Assistant Educators' Association, and the North Carolina Dental Assisting Association should partner to convene a group to examine scope of practice for dental hygienists and assistants by:

a. Engaging dental hygienists and assistants to better understand professional needs and motivations.
b. Conducting research to analyze regulation, supervision, and scope of practice for dental hygienists and assistants by state.
c. Ensuring expanded dental hygienist and assistant representation on the North Carolina Dental Society Council for Prevention in Oral Health.

### *Desired Result*

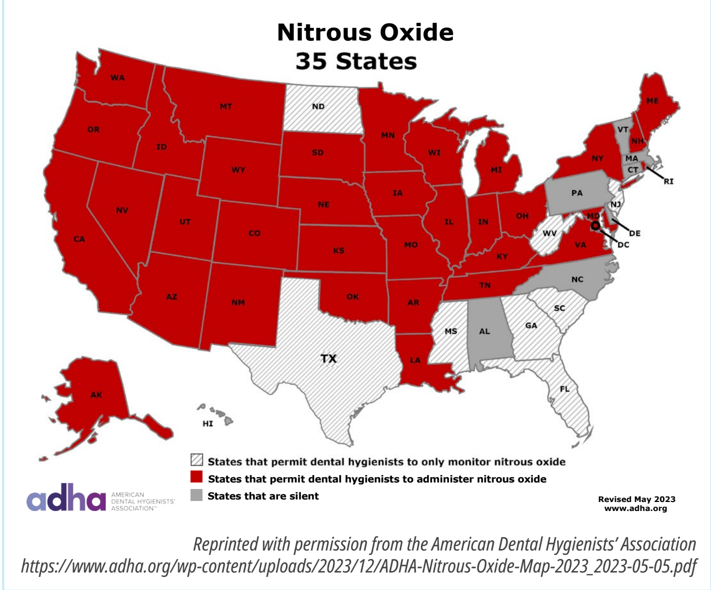
Dental teams operate more efficiently and have increased capacity to care for patients.

### *Why does the task force recommend this strategy?*

Current strains on the oral health workforce are culminating in critical clinical challenges within dental practices. Delegating an expanded set of procedures to these skilled professionals aims to free up dentists, allowing them to focus on more complex cases and see a higher volume of patients. This strategy not only leverages staff skills and training but also alleviates strain on the entire dental team, fostering a more balanced workload distribution. Examining the state's options for expanded scope of practice for hygienists and assistants aligns with evidence-based practice, supported by research indicating the safe and effective performance of specific procedures.[43,44]

### *Context*

Scope-of-practice rules and regulations protect patient safety and resources. They can also inadvertently hinder the innovative workforce solutions required for achieving oral health equity. When exploring the state's options for expanding scope of work for dental hygienists and assistants, an incremental and collaborative approach holds the most promise for achieving sustainable and supported change.[45] Scope of practice for hygienists and assistants varies widely from state to state and the landscape of variation is ever-changing. Organizations like the Oral Health Workforce Research Center, the American Dental Hygienists Association, and the Dental Assisting National Board periodically publish information that tracks and compares changes in scope of practice for these professions across the country.




*Reprinted with permission from the American Dental Hygienists' Association*
*https://www.adha.org/wp-content/uploads/2023/12/ADHA-Nitrous-Oxide-Map-2023_2023-05-05.pdf*

### *How would this impact oral health outcomes?*

Allowing hygienists and assistants to perform more procedures and perform some designated procedures independently may provide patients with more convenient and timely services. This shift facilitates quicker access to essential treatments and preventive care, potentially reducing waiting times and enhancing overall patient satisfaction. Additionally, this streamlined approach to service delivery could lead to a more proactive emphasis on preventive measures, ultimately contributing to improved oral health outcomes within communities, especially among populations facing barriers to accessing dental care.

## RECOMMENDATION 9

**Elevate the oral health profession through early exposure and ongoing continuing education.**

***Strategy 22:*** NC AHEC, myFutureNC, and NC Health Occupations Students of America (HOSA) should collaborate to develop an initiative to prioritize and support pre-secondary oral health career exposure by:

a. Adding oral health career pathways components to the school-based oral health education program curriculum.
b. Including oral health in North Carolina high school academies of medicine.

Early career exposure introduces young people to the world of dentistry and helps them decide if it is a career path they're interested in pursuing. It also operates as a workforce development strategy in that it piques the interest of prospective dentists, dental hygienists, and dental assistants, which may help ensure an adequate dental workforce is in place to serve the future oral health needs of the state. This recommendation hinges on North Carolina's oral health workforce's continued partnership and integration with the education system. With the integration of practical experiences into educational curricula, students can gain a deeper understanding of the oral health professions and start considering early on whether a career in dentistry is the right fit for them.

***Strategy 22:*** NC AHEC, myFutureNC, and NC Health Occupations Students of America (HOSA) should collaborate to develop an initiative to prioritize and support pre-secondary oral health career exposure by:

a. Adding oral health career pathways components to the school-based oral health education program curriculum.

b. Including oral health in North Carolina high school academies of medicine.

### *Desired Result*

School-aged children in North Carolina are introduced to the oral health profession and have ongoing opportunities to learn more about dentistry as a potential career path.

### *Why does the task force recommend this strategy?*

Nearly half of all pre-doctoral senior dental students report that they decided to become a dentist before going to college.[46] This is increasingly true for students who come from historically underrepresented racial and ethnic groups. Given the projected need for more members of the dental team across the state, the task force recommends this strategy to promote early exposure to the dental profession in hopes of sustaining a viable oral health workforce for years to come.

### *Context*

Programs like Preparing Tomorrow's Dentists at ECU's School of Dental Medicine and initiatives by NC AHEC provide students with insights and hands-on experiences, guiding them toward future careers in oral health. There is also opportunity to leverage programs that currently have access to students but aren't specifically engaging in workforce exposure. For high school students, this may include programs like the North Carolina chapter of the Health Occupation Students of America (HOSA) or high school health academies. For younger students, we can aim to integrate workforce strategies while engaging in the delivery of dental care in school settings.

### *How would this impact oral health outcomes?*

Early exposure to the oral health profession not only improves future workforce prospects but generally increases oral health literacy and helps shape positive attitudes toward dentistry and oral health professionals. By working to ensure that a broader and more diverse group of North Carolina youth are exposed to the dental profession early in their education, we can help meet the growing demand for oral health services and usher in positive changes in access and diversity within the profession.

## RECOMMENDATION 10

**Advance oral health career pathways and concentrations.**

***Strategy 23:*** The North Carolina Dental Society, dental schools, community colleges, and the UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families should partner to:

a. Promote mentorship for oral health students to increase interest in serving in rural practice, safety-net settings, and other practices serving Medicaid patients and patients with special health care needs.

b. Develop pathways for practicing oral health professionals to become educators, instructors, and mentors for dentistry, dental hygiene, and dental assisting in a variety of educational and practice settings, including mobile dentistry and specialty care clinics.

c. Facilitate the connection between dental education programs, including UNC Adams School of Dentistry, ECU School of Dental Medicine, Workman School of Dental Medicine, and North Carolina community colleges.

***Strategy 24:*** The North Carolina Oral Health Collaborative should work with partners to increase options and improve accessibility for training oral health practitioners in core tenets and values of whole-person oral health care, including:

a. Implementing shared decision-making techniques and supporting the right to self-determination.
b. Supporting patient dignity, respecting human difference, and recognizing historical inequities.
c. Assessing and addressing social and economic need.

As North Carolina looks to the future, the strategic advancement of oral health career pathways and concentrations plays a critical role in the advancement of the profession. The proposed strategies under this recommendation embrace a collaborative approach that aims to fortify the professional fabric of oral health throughout the state. Interpersonal connection within dentistry is central to this recommendation in that it focuses on professional connection, satisfaction, and fulfillment as benchmarks toward a more sustainable oral health workforce.

While North Carolina has initiated valuable interprofessional connections within oral health, the mentorship landscape remains largely informal. Potential remedies to this challenge include coordinating efforts and forming strategic partnerships to preserve the rich history, community, and connectedness within the North Carolina dental community. The demographics of professionals practicing dentistry throughout the state are changing and many dental professionals are approaching retirement. Formalizing mentorship facilitates the transfer of clinical expertise from seasoned professionals to early-career practitioners while maintaining and enhancing the quality of dental care available to North Carolina residents.

This recommendation embraces collaborative strategies that align with a vision of a dynamic environment where mentorship thrives, knowledge is exchanged, and collaboration flourishes. The mentorship relationships established through this strategy seek to positively impact oral health outcomes by contributing to ongoing professional development, ultimately leading to improved patient care through enhanced clinical skills, informed decision-making, and patient-centered practices. As the dental landscape continues to evolve, this recommendation positions North Carolina to not only sustain but elevate the quality of oral health care delivery.

***Strategy 23:*** The North Carolina Dental Society, dental schools, community colleges, and the UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families should partner to:

a. Promote mentorship for oral health students to increase interest in serving in rural practice, safety-net settings, and other practices serving Medicaid patients and patients with special health care needs.
b. Develop pathways for practicing oral health professionals to become educators, instructors, and mentors for dentistry, dental hygiene, and dental assisting in a variety of educational and practice settings, including mobile dentistry and specialty care clinics.
c. Facilitate the connection between dental education programs, including UNC Adams School of Dentistry, ECU School of Dental Medicine, Workman School of Dental Medicine, and North Carolina community colleges.

### *Desired Result*

Oral health students and early-career professionals have meaningful connections to experienced practitioners that result in increased mentorship opportunities that are mutually beneficial.

### *Why does the task force recommend this strategy?*

North Carolina has made strides in formalizing interprofessional connections within oral health through statewide stakeholder meetings and regionalized committees.[47] However, professional connections and mentorship opportunities remain generally informal with no plan for sustainability or duplication. Through coordinated efforts and partnerships, the task force believes the North Carolina dental community can preserve its rich history, community, and connectedness. Task force members have cited several efforts in the past, which have since been concluded, that both intentionally and inadvertently fostered mentoring relationships between experienced and new providers. Examples of these opportunities include: 1) A continuing education course offered by the North Carolina Academy of Pediatric Dentistry in which experienced dentists shared recommendations and tips for building a practice that incorporates Medicaid patients, and 2) the North Carolina Dental Society's mentorship program that paired dental students with active practitioners.[48,49]

Increasing opportunities for experienced practitioners to share their wealth of knowledge and practical insights with early-career professionals facilitates the transfer of clinical expertise, allowing newer professionals to benefit from the wisdom and experience of their more seasoned counterparts. This knowledge transfer is critical in maintaining and enhancing the quality of dental care provided.

### *Context*

**Changing Demographics in Dentistry**

Right now, North Carolina has mostly informal connections between experienced and early-career oral health professionals that could be lost upon the retirement of people currently working. Nationally, 21% of dentists are between the ages of 55 and 65.[50] In North Carolina, 8% of dentists and 5% of dental hygienists are aged 65 or older.[2]

**Advances in Dental Technology**

Dental technology and practice continue to evolve.[51] Early-career professionals can benefit from the insights of experienced mentors who have navigated previous technological shifts and provide guidance on adapting practices to accommodate for new tools and techniques.

**Addressing Burnout and Stress Management**

Rates of anxiety and depression among dental health care providers have increased in recent years.[52] This was further exacerbated by the COVID-19 pandemic.[53] New dentists face a unique set of challenges that compound stress. Mentorship provides a valuable support system, offering guidance on stress management, work-life balance, and strategies for navigating challenges in the dental profession.

### *How would this impact oral health outcomes?*

Increased meaningful connections between early-career and experienced dental professionals create a dynamic environment of knowledge exchange, mentorship, and collaboration. These interactions contribute to the ongoing professional development of early-career professionals, ultimately leading to improved health outcomes for patients through enhanced clinical skills, informed decision-making, and patient-centered care.

***Strategy 24:*** The North Carolina Oral Health Collaborative should work with partners to increase options and improve accessibility for training oral health practitioners in core tenets and values of whole-person oral health care, including:

a. Implementing shared decision-making techniques and supporting the right to self-determination.

b. Supporting patient dignity, respecting human difference, and recognizing historical inequities.

c. Assessing and addressing social and economic need.

### *Desired Result*

Oral health professionals are equipped with the skills and knowledge necessary to model a whole-person approach to the delivery of oral health care.

### *Why does the task force recommend this strategy?*

The task force recommends this strategy to address a critical need for a more comprehensive approach to oral health care. Training oral health practitioners in shared decision-making techniques empowers patients to actively participate in their own care, promoting autonomy and self-determination. Fostering a culture that supports patient dignity and recognizes human differences is crucial for delivering inclusive and culturally competent care. Additionally, equipping practitioners to assess and address social and economic needs is essential for tackling oral health disparities and ensuring comprehensive health care delivery.

### *Context*

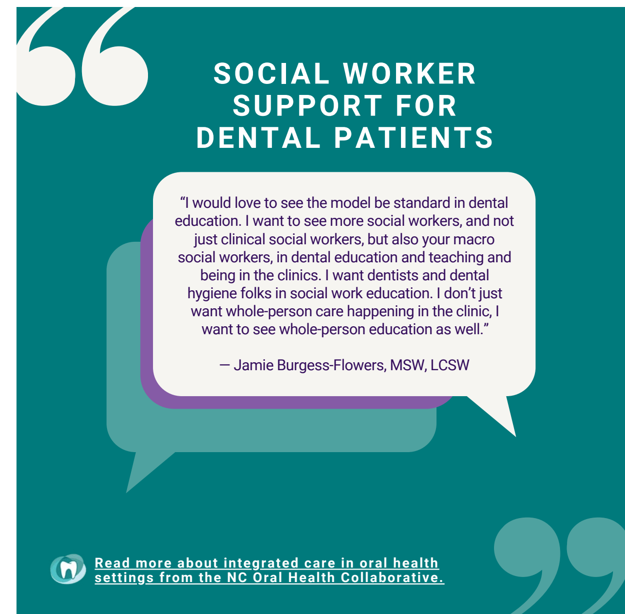
North Carolina's health care landscape is increasingly evolving toward improved care coordination and care innovation that account for both medical and social drivers of health. Current opportunities for active oral health practitioners to participate in this evolution are limited, and efforts to enhance a whole-person approach at the practice level are often curtailed by workforce challenges such as administrative burden, lack of reimbursement for integrated services, and provider retention issues.[54]

#### SDOH Integration into Clinical Education

The Adams School of Dentistry has experienced success in the integration of social drivers of health (SDOH) into patient care workflow and dental student clinical and didactic education, through the creation of a dual-appointment social work faculty position.[55–57] The Adams School of Dentistry's integration of this faculty member serves as a model for how SDOH content can be integrated into dental education settings while also increasing opportunities for interprofessional training and collaboration.

#### SDOH Integration into Continuing Education Opportunities

SDOH education is a critical component of social worker training and education. Integrating social workers into the dental team is a promising avenue for improving dental practitioner readiness to recognize and address patient SDOH needs.[57] Outside of interprofessional education that creates a mutually beneficial learning environment for both social workers and dental professionals, there are several evidence-based SDOH frameworks designed to improve clinical practice and overall quality of life that could be integrated into existing avenues currently providing dental continuing education.[58] These programs potentially include continuing education provided by NC AHEC and the North Carolina Dental Society.




### *How would this impact oral health outcomes?*

This strategy holds the potential to significantly impact oral health outcomes by fostering a more patient-centered and socially aware approach within oral health care practices. Practitioners trained in shared decision-making techniques are more likely to embrace a collaborative approach when engaging with patients, leading to improved health behaviors and outcomes. Emphasizing patient dignity and acknowledging human differences positively contributes to culturally competent care and reduces health disparities.

## RECOMMENDATION 11

**Expand and improve local and state public health data and human resources to catalyze community problem-solving.**

***Strategy 25:*** Local public health agencies and community-level health coalitions should assess and prioritize the oral health status of community members, opportunities for achievement of equitable outcomes, local assets and resources available, and feasible implementation strategies.

***Strategy 26:*** NC DHHS DPH and NC DHHS DPH Oral Health Section should continue to collect and disseminate oral health outcome data and develop resources for analyzing local data and supporting feasible implementation goals. Goals should include:

a. Conducting a statewide assessment to better understand the current state of unmet oral health care needs among adults and children in North Carolina.
b. Adopting validated oral health questions on North Carolina's Annual Behavioral Risk Factor Surveillance System (BRFSS) Questionnaire.
c. Developing and sustaining the data dashboard of publicly available, county- and state-level oral health metrics.
d. Disseminating information to local health departments, local health coalitions, and elected officials and health care leaders.

Effective improvement of oral health outcomes within communities relies heavily on the availability and utilization of accurate data. Understanding the intricate dynamics of oral health requires a comprehensive approach that incorporates data-driven insights at the community level. This necessitates a focused effort on community-level problem-solving, where data serve as the foundation for informed decision-making and targeted interventions. By delving into the specifics of local and state public health data, we can catalyze initiatives that address oral health challenges at their roots.

To bring about meaningful change in oral health outcomes, it is essential to harness data that inform both community- and state-level policy adjustments. The power of data lies in their ability to guide evidence-based policy changes that resonate with the unique needs of communities. Governmental bodies, public health agencies, and community organizations play pivotal roles in supporting and catalyzing these initiatives. The imperative for data-driven policy change is not only about collecting information but also about leveraging it to drive positive transformations in the oral health landscape.

A critical component of this initiative involves gaining a nuanced understanding of the existing local and state oral health data landscape. Currently, statewide and regional oral health outcomes data are primarily collected and shared by NC DHHS through the North Carolina State Center for Health Statistics, North Carolina Division of Health Benefits, and the Oral Health Section (OHS).[59] Surveys like the annual kindergarten oral health assessments conducted by OHS make data on children's oral health outcomes more readily available than adult data. Other health outcomes data are collected through the Behavioral Risk Factor Surveillance System (BRFSS), which reports measures on frequency of dental visits, rates of tooth loss, and rates of oral cancer screening.[60]

Accessibility and comprehensiveness are paramount, as decision-makers need reliable information to craft effective policies. The adoption of comprehensive data metrics, such as validated oral health measures like those developed by the Dental Quality Alliance (DQA), becomes instrumental.[61] These metrics provide a standardized framework for evaluating oral health, ensuring that the data collected is not only robust but also comparable across different regions. This approach allows for a more accurate assessment of the oral health needs of communities and facilitates targeted interventions.

The utilization of data at the community level is a fundamental necessity for improving oral health outcomes. The insights derived from data analytics form the bedrock of informed decision-making, driving policies that directly address the unique challenges faced by communities. Ongoing collaboration and strategic planning are vital components of sustaining this momentum, ensuring that data collection remains a dynamic tool for positive change. By expanding and enhancing local and state public health data resources, we can catalyze a collective effort toward healthier communities and improved oral health for all.

***Strategy 25:*** Local public health agencies and community-level health coalitions should assess and prioritize the oral health status of community members, opportunities for achievement of equitable outcomes, local assets and resources available, and feasible implementation strategies.

### *Desired Result*

Local public health agencies and community health coalitions are empowered and equipped with a comprehensive understanding of their community's oral health landscape, enabling them to prioritize and implement equitable strategies tailored to their community's needs and resources.

### *Why does the task force recommend this strategy?*

When local public health agencies and community health coalitions assess oral health status, identify opportunities for equitable outcomes, and leverage local assets, we can ensure that interventions are rooted in the unique context of each community. Recognizing the influence of SDOH on oral health, this approach enables the development of strategies that are not only effective but also culturally competent and inclusive. Additionally, by leveraging local resources and feasible implementation strategies, the approach optimizes the likelihood of sustained impact and community engagement.

### *Context*

The oral health status of North Carolinians varies by county and region. A localized approach to accounting for the localized contexts of oral health needs allows community need to be central in oral health improvement initiatives. There are significant regional differences in oral health outcomes that inform priority setting. For example, communities in the Western region of the state have the highest rates of permanent teeth extraction. Residents in this part of the state are also more likely to go longer periods of time without visiting a dentist.[59] Community-driven strategies within this part of the state might look very different from those of other regions where oral health outcomes drive a focus on other areas, such as untreated tooth decay among kindergarteners or pregnant women.

By assessing the oral health status of community members and considering local assets and resources, public health agencies and health coalitions are better equipped to tailor interventions that resonate with the unique needs and challenges of their population. Community health assessments (CHA), conducted by local health departments, are tools for improving the health of local communities.[62] Each county CHA is different and highlights high-priority issues specific to its community. CHAs are conducted every four years for local health department accreditation by the North Carolina Local Health Department Accreditation Board.[63] Oral health is addressed in varying capacities across these assessments, with some counties highlighting data on oral health or including questions about oral health in assessments surveys. Some CHAs do not mention oral health at all. Local communities across the country have adopted different strategies to improve local oral health data. The state of Kansas serves as a model for engaging community health workers in advancing the integration of oral health in CHAs.[64] Other states have adopted county-wide oral health needs assessments.

### *How would this impact oral health outcomes?*

Localized assessment allows for a nuanced understanding of the oral health needs and disparities within a community. Prioritizing equitable outcomes ensures that interventions are designed to address disparities and promote inclusivity. By leveraging local assets and resources, the strategy enhances the feasibility and sustainability of interventions, making them more likely to be embraced by the community.

***Strategy 26:*** NC DHHS DPH and NC DHHS DPH Oral Health Section should continue to collect and disseminate oral health outcome data and develop resources for analyzing local data and supporting feasible implementation goals. Goals should include:

a. Conducting a statewide assessment to better understand the current state of unmet oral health care needs among adults and children in North Carolina.
b. Adopting validated oral health questions on North Carolina's Annual Behavioral Risk Factor Surveillance System (BRFSS) Questionnaire.
c. Developing and sustaining the data dashboard of publicly available, county- and state-level oral health metrics
d. Disseminating information to local health departments, local health coalitions, and elected officials and health care leaders.

### *Desired Result*

Statewide and local oral health improvement initiatives are informed and shaped by comprehensive data collection, analysis, and strategic dissemination.

### *Why does the task force recommend this strategy?*

This strategy stems from a proactive approach to addressing oral health disparities and unmet needs in North Carolina. By emphasizing data collection, adoption of validated questions, and the development of a user-friendly data dashboard, the task force aims to create a foundation for informed decision-making, resource allocation, and targeted interventions.

### *Context*

The current state of oral health care in North Carolina necessitates a data-driven strategy to understand and address unmet needs among both adults and children. Robust data collection is essential for identifying gaps, trends, and areas requiring intervention. Currently, North Carolina does monitor the oral health status of communities. However, data are spread out over multiple sources. The most comprehensive data are specific to children, and there are limited data available on the state of unmet oral health needs. This approach aligns with the broader goal of fostering a healthier population by targeting specific oral health challenges.

### *How would this impact oral health outcomes?*

1. **Statewide Assessment:** Conducting a comprehensive statewide assessment will provide a clear picture of existing oral health care needs. This understanding is necessary for tailoring interventions to specific regions, demographics, and socioeconomic factors.
2. **BRFSS Questionnaire Adoption:** Integrating validated oral health questions into the Behavioral Risk Factor Surveillance System ensures ongoing, standardized data collection. This facilitates the tracking of oral health trends over time and allows for targeted interventions based on reliable information.
3. **Data Dashboard Development:** A data dashboard would serve as a centralized hub for accessible and transparent oral health metrics. Disseminating this information to local health departments, coalitions, elected officials, and health care leaders empowers them to make informed decisions, advocate for necessary resources, and implement evidence-based policies.

### DENTAL THERAPISTS: WHAT DO THEY DO AND WHAT ROLE COULD THEY PLAY ON THE DENTAL CARE TEAM?

Dental therapists, also known as dental health aid therapists, are “licensed and/or certified providers that work under the supervision of a dentist” to provide preventive and routine dental care, “including exams, filling cavities, educating patients about oral health, cleaning teeth, placing temporary crowns, and performing extractions.”[65] They can be compared to physician assistants in terms of providing mid-level care. Competencies for dental therapists are different from those of dental hygienists in that they focus on the hard surfaces of the mouth (teeth), including drilling, filling cavities, restoring teeth, and simple extractions, while hygienists focus on soft tissues (gums) and prevention.[66] Dental therapists are trained in a post-secondary setting and complete “at least three academic years (not including summers) of full-time instruction, including a clinical preceptorship experience.”[65]

Dental therapists can help improve access to dental services, particularly in dental care shortage areas, as a member of a dental care team supervised by a dentist in varied settings like schools, nursing homes, or rural clinics.[67] In this capacity, dental therapists are trained to either work onsite with a dentist or off-site under the supervision of a dentist, collaborating via telehealth as needed.[67] In addition, dental therapy offers an opportunity to diversify the dental care provider population. Black, Hispanic, rural, and other underrepresented groups in dentistry can face greater financial challenges in accessing a dental school education, which can add up to $260,00–$325,000.[68] A more affordable education is possible through dental therapy, and limited data show that the profession is more diverse than dentistry.[69] Greater diversity in dental health providers can help meet people’s cultural and linguistic needs, another important aspect of access to care.[68,70]

Currently, 10 states have statewide authorization for dental therapists and an additional four states have authorization for tribal dental therapy. [b] [71]

- Alaska - Alaska was the first state to implement a dental therapy program through the Alaska Native Tribal Health Consortium, with therapists beginning to practice in 2005. Prior to the program’s implementation, 87% of Alaska Native children were experiencing dental carries and 83% of Alaska Native adults had lost at least one tooth.[66] Studies show that now patient wait times have decreased while preventive service use has increased.[66]
- Minnesota – In 2011, dental therapists began practicing in Minnesota in public health settings, dental Health Professional Shortage Areas (HPSAs), and facilities where at least half of patients are uninsured or covered by Medicaid.[66] At the time, almost half of dentists practicing in the state were aged 55 or older.[66] Studies have shown an improvement in access to dental care, clinical productivity, and clinic finances.[66]
- Work is needed to determine the way forward for dental therapy in North Carolina, where it is currently not an authorized dental care role. Diverse perspectives from both clinicians and consumers will need to be considered to build consensus on whether the state should pursue dental therapy as a strategy for addressing dental care access challenges.

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- The Role of the Dental School Environment in Promoting Greater Student Diversity
- Dental Hygiene Education Program Characteristics
- Dental Assisting Education Program Characteristics
- Oral Health Equity and Unmet Dental Care Needs in a Population-Based Sample: Findings from the Survey of the Health of Wisconsin

*[b] Arizona, Colorado, Connecticut, Maine, Michigan, Minnesota, Nevada, New Mexico, Oregon, and Vermont, have statewide authorization for dental therapists. Alaska, Idaho, Montana, and Washington have tribal authorization.*

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# CHAPTER FIVE

## Enhancing Consumer Experience and Satisfaction in Oral Health Care

Consumer experience is fundamental to the task force's vision of building a high-quality oral health system in North Carolina. Understanding what patients go through during their oral health journey is essential to achieving this vision. Consumer experience is defined by interactions within the oral health system and influenced by access to care, culturally appropriate care, care coordination and integration, and communication. Recognizing and addressing these elements contributes to improved oral health experiences and satisfaction.[1]

Tools like the Consumer Assessment of Healthcare Providers and Systems (CAHPS)[a] survey are vital for monitoring patient experience.[2] While patients might not be experts in technical care quality, they are experts in their own experiences.[3] CAHPS surveys focus on key areas like communication, accessibility, and staff courtesy—qualities that are essential for a positive health care encounter.[4] There are different types of CAHPS surveys that ask about patient experiences in different health care settings, including a dental plan survey that collects reports on experiences with care and services from dental plans, dentists, and the dental team overall. The CAHPS Health Plan Survey is nationally recognized as the standard tool for understanding enrollee experiences with health plans, including commercial and Medicaid plans. The Health Plan Survey does not include questions related to oral health, however there are supplemental questions related to dental care that may be added. Research has shown a correlation between patient experience measures and various quality measures, including clinical outcomes.[5] Positive patient experiences are associated with best-practice clinical processes, improved safety culture, lower unnecessary utilization, and positive clinical outcomes.[6]

As North Carolina expands Medicaid access to more individuals, opportunities for soliciting consumer input will grow. Engaging individuals and communities in program design can help ensure effective program design and service delivery.

## *Aspects of Patient Experience*

### Access to Care

Access to care shapes patient experience by evaluating how easy it is for patients to obtain necessary care and the speed at which they can access it.[4] Timely and efficient access to care is fundamental to ensuring a positive oral health journey for the patient.

### Culturally Appropriate Care

Culturally appropriate care acknowledges the diversity of patients and recognizes that different cultural backgrounds may require tailored approaches.[7] Ensuring care is aligned with patients' cultural values and preferences is essential for providing inclusive and effective health care.

### Care Integration and Coordination

Effective care integration and coordination involves providers being aware of the care received from other providers. It also includes understanding patients' backgrounds, values, and other relevant information. Seamless coordination among health care providers enhances the overall patient experience.

### Communication

Effective communication is determined by how well doctors communicate, including whether they explain information in an understandable way, listen actively, show respect for patients' opinions, and allocate time for patient interactions. It encompasses the crucial elements of obtaining information, shared decision-making, and self-management support.

Enhancing consumer experience and satisfaction in oral health care requires an approach that addresses various aspects of patient experience. Monitoring patient experience through tools like the CAHPS survey is not only important for patient satisfaction but is also correlated with improved clinical quality. By focusing on access to care, culturally appropriate care, care coordination, communication, and other key areas, we can strive toward a health care system that prioritizes patient well-being and satisfaction.

### RECOMMENDATION 12

**Build consumer trust by establishing clear and accessible pathways for understanding and improving consumer experiences within the oral health system.**

***Strategy 27:*** NC Medicaid should collaborate with county Departments of Social Services to identify and improve barriers to Medicaid enrollment and utilization.

***Strategy 28:*** Leaders and advocates in the NC Medicaid system should develop mechanisms to evaluate consumers' experiences with receiving oral health care and identify necessary support and actions for improvement.

*[a] CAHPS is a program of the Agency for Healthcare Research and Quality (AHRQ). CAHPS surveys are completed by consumers and patients to report their experiences with providers, health plans, and related programs. Questions in the CAHPS survey address experience in communicating with health care professionals, access to care and health information, customer service, and coordination of care.*

Trusting health care providers and institutions is important for health. This trust affects willingness to receive care and preventive screenings and is also linked to improved health outcomes.[8] However, not all communities feel the same level of trust in their providers. Medical mistrust is strongly linked to past mistreatment of ethnic and racial minorities and is also influenced by contemporary experiences.[9] Approximately 20% of adults in the U.S. have experienced discrimination in health care, with the most common causes being reported as ethnic and racial factors.[10] Black and Latinx communities, along with other marginalized groups, have a well-documented history of receiving inferior care even with a comparable level of insurance and access to care as other groups.[11]

***"Whenever I would have a toothache, I wouldn't tell my mom. And if I had a cavity, I couldn't sleep at night. I couldn't rest well. It impacted my chewing, my swallowing, and my overall health because I would have pain in my ears and down the side of my neck...but I was so scared. I was scared to experience the pain at the dentist again."[12]***

Trust influences decisions about seeking and obtaining care. Improving experiences through trust-building is important for advancing health equity. A Deloitte research study found that people who identify as Black, Asian, or Latinx expressed concerns that their pain levels were denied and that they were not treated well by hospital staff and doctors.[8]

Despite a self-reported worse health status than those with employee-sponsored insurance or Medicare, 83% of Medicaid enrollees rated the overall performance of their health insurance as "excellent" or "good."[13] However, White adults were the most likely to rate their insurance as "excellent," with 44% describing their Medicaid coverage this way, compared to 34% of Latinx adults and 29% of Black adults.[13]

***"Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and social determinants of health — and to eliminate disparities in health and health care."[14]***

Consumer trust is important. People who mistrust the health care system are less likely to visit a physician, be truthful with their providers, and comply with medical advice. Mistrust can also lead to worse patient outcomes and/or higher costs of care.[15] Prevention and restoration drive dental care. Delays in seeking care result in initiating care at later stages of disease, increasing the costs of treatment. Delays in seeking care may also result in an increase in emergency room and urgent-care use: each year in the U.S. more than $8 billion is spent on emergency care that could have been provided in another care setting.[16] Bolstering trust may encourage people to seek the health care they need at the time the best possible services and experience can be provided. By addressing patient concerns, dental providers can build trust-based relationships. By understanding what motivates patient behaviors and drives their decision-making, health systems can take more tailored steps to reach and engage with health care consumers.[17]

By understanding what motivates consumer behaviors and drives their decisions, health systems can take more targeted steps to reach, engage, and serve them with their preferences and needs in mind. This path to deeper understanding allows health systems to tailor communication strategies, design personalized interventions, and create optimal health care experiences. Listening to consumers is an integral part of achieving trust.[18] In fact, data indicate rising numbers of dental professionals seeking to improve their interpersonal skills to provide better care.[19] Establishing clear channels for feedback demonstrates a commitment to hearing concerns and improving services accordingly. Understanding consumer experience is important broadly, regardless of the ways people access and pay for care. For Medicaid programs specifically, talking directly to consumers helps to identify misunderstandings and potential gaps that may not be readily apparent to state policymakers. These feedback mechanisms demonstrate a commitment to listening to consumer feedback and taking appropriate actions to address issues.

### *Key Factors Influencing the Recommendation*

As Medicaid continues to grow in scale and expands its coverage and services to more individuals and communities, increased consumer input in implementation can influence innovative program design and improve service delivery.[20] While most states, including North Carolina, don't specifically call out oral health in their efforts to facilitate consumer engagement, there are existing opportunities that apply to all Medicaid beneficiaries, including those who utilize dental benefits. There is also an opportunity to specifically utilize these strategies to assess patient experiences in receiving oral health care. Each state Medicaid program is required to have a Medical Care Advisory Committee (MCAC) that includes provider, consumer, and government representatives. Colorado's Medicaid agency uses a collaborative process to seek out consumer priorities when making decisions about covered benefits. In Pennsylvania, there is a subcommittee in addition to the MCAC that is made up entirely of consumers and focuses on their needs. The group meets before each MCAC session to generate consumer-led policy ideas. In Minnesota, community partnerships provide spaces for engagement, such as consumers sharing personal stories prior to discussing Medicaid program design. In New York, 25 focus groups were conducted in several languages to gauge consumer knowledge of health systems and experience with care. These findings were used to create educational messages designed to improve care provided to Medicaid beneficiaries. Several states also supplement committee meetings with town halls, stakeholder partnerships and outreach, focus groups, and email surveys. Virginia allows consumers to participate in town halls during which committee members dial in to ask questions and offer comments.[20]

Other avenues and feedback mechanisms for reporting and resolving consumer issues include programs like the North Carolina Medicaid Ombudsman program. The North Carolina Department of Health and Human Services has contracted with the ombudsman to provide free, confidential support and education to Medicaid beneficiaries about consumer rights and responsibilities under the NC Medicaid program. The ombudsman is also able to offer help if consumers are having trouble getting access to health care and can make referrals to state agencies, community-based advocacy groups, legal groups, and more.[21]

NC Child, a nonprofit organization that advances public policies for the health and well-being of children in North Carolina, operates a Parent Advisory Council for those whose children rely on Medicaid for health care, including oral health. The goal of the council is to ensure that these individuals have a say in how Medicaid and NC Health Choice programs work for their children.[22] In February 2024, NC Child published a report that highlights stories from caregivers and parents across North Carolina that describe barriers to oral health care for children and factors that limit accessibility to this care.[23] Parents engaged in the NC Child Parent Advisory Council also contributed insight to the task force process by sharing their experiences interacting with the NC Medicaid oral health program.[24] NC Child is a trusted and key partner for engaging with parents and families to best understand and respond to the physical, emotional, and financial barriers children throughout the state face when seeking oral health care.

***Strategy 27:*** NC Medicaid should collaborate with county Departments of Social Services to identify and improve barriers to Medicaid enrollment and utilization.

### *Desired Result*

North Carolinians who are eligible for Medicaid can easily enroll and utilize oral health benefits at increased rates.

### *Why does the task force recommend this strategy?*

Better coordination and support, such as technical assistance, would provide additional resources to county health departments and DHHS. This would lead to improved support systems for applicants and beneficiaries, resulting in a smoother enrollment process and better ongoing assistance. Improved assistance and navigation services could lead to increased satisfaction among beneficiaries as they receive more guidance.

Utilization of the oral health benefit in Medicaid is low: only 18% of adult Medicaid beneficiaries in North Carolina use these benefits.[25] In 2019, only 59.9% of child Medicaid beneficiaries utilized the oral health benefit.[26] Increased education about the oral health benefits included in their health plans might help to mitigate confusion among beneficiaries around eligibility and encourage utilization of available services. Improved awareness of eligibility status and available benefits will lead to a higher likelihood of individuals seeking care. User-friendly processes and clear communication that is transparent and readily available may also help individuals be more likely to engage with the oral health care system.[27]

### *Context*

Maintaining efforts to increase enrollment and utilization rates involves improving oral health literacy and targeted outreach through community-based partners.[28] It is estimated that only 1 in 10 adults in the U.S. can understand written material on oral health, and adults with low health literacy tend to underutilize resources.[29,30]

In 2022, North Carolina's uninsured rate was 10th highest in the nation at 9.3%; the national average is 8%.[31] Medicaid coverage has been shown to increase health care utilization, lower medical debt, and allow beneficiaries to seek care before conditions worsen and they must rely on emergency care.[28] On December 1, 2023, over 600,000 North Carolinians became eligible for NC Medicaid.[32] As of January 12, 2024, 314,101 North Carolinians were newly enrolled.[33] Improved oral health outcomes attributed to increased enrollment rely on educating beneficiaries about the oral health benefit, accessibility of dental services, and availability of providers.

### *Enrollment Barriers*

Consumers can apply for Medicaid online, in person, over the phone, by mail or fax, or drop off an application at a local Department of Social Services.[34] However, providing the correct documentation can pose a barrier to Medicaid enrollment.[28] The documentation requirements are most difficult for those who work multiple jobs or unpredictable hours with wages that vary week to week.[35] While most eligibility factors for Medicaid can be verified using electronic data from federal and state entities, most Medicaid agencies continue to require applicants to submit paper documents to prove eligibility. This can impact enrollment as eligible people are sometimes unsure of how to submit the correct documentation. Where online applications are available, the design of state websites for Medicaid enrollment may pose additional challenges. People with lower incomes are more likely to rely on a smartphone for internet access, and if the websites are not optimized for mobile usage, this impedes access to applying.[35]

### *Barriers to Utilization*

In addition to awareness of available benefits, limited access to transportation can negatively impact the number of beneficiaries who utilize the Medicaid oral health benefit. Public transportation is often limited in rural areas, which make up much of the state. Only 45% of North Carolina dentists accept Medicaid, but many of them are not accepting new patients. When all but six of the 100 counties in the state are already dental care health professional shortage areas, this poses a challenge in meeting the needs of Medicaid beneficiaries.[36]

Ensuring beneficiaries are aware of the full benefits of their Medicaid plan supports access to care. Alternative or complementary strategies to ensure beneficiaries understand their dental benefits and how to use them may be necessary to increase awareness and utilization of benefits. Currently, dental benefits are not listed on Medicaid insurance cards. However, if a consumer is enrolled in managed care, the name, address, and telephone number of the primary care provider is shown on the ID card. The card

may also show the name and telephone number of a behavioral health managed care organization (MCO) if a consumer is enrolled in such a program.[37] A newly updated one-page informational flyer does mention that dental and oral health services are covered.[38] On the NCDHHS Medicaid page, there is a tool to find providers; dental providers are listed as a searchable option.[39] During task force discussions, providers shared the challenges faced by many of their patients in identifying participating dental providers who are accepting new patients.

### *How would this impact oral health outcomes?*

Medicaid coverage is associated with positive health outcomes, such as improved self-reported health status, higher rates of preventive health screenings, decreased hospital and emergency department utilizations, and decreased infant, child, and adult mortality rates.[40] Studies show that dental coverage through Medicaid increases access to and utilization of dental care. Coverage also positively contributes to improved oral health outcomes and has the potential to reduce economic and racial disparities in oral health.[41] Furthermore, data indicate that children are more likely to visit the dentist when their parents have dental coverage. Children of adults with adult dental coverage through Medicaid have reduced prevalence of untreated caries.[42] This underscores the significant role Medicaid plays in promoting access to essential services and preventive measures. By providing a comprehensive safety net, Medicaid contributes to addressing health needs and improving long-term health.

***Strategy 28:*** Leaders and advocates in the NC Medicaid system should develop mechanisms to evaluate consumers' experiences with receiving oral health care and identify necessary support and actions for improvement.

### *Desired Result*

NC Medicaid has a clear understanding of beneficiaries' challenges in interacting with the program and understanding and utilizing oral health benefits.

### *Why does the task force recommend this strategy?*

It is important to understand the experiences of Medicaid beneficiaries to address systemic barriers that prevent access to oral health care. There is a lack of comprehensive oral health beneficiary data, which hinders Medicaid's ability to make meaningful change. Currently, oral health is often excluded from efforts that prioritize health equity. By including oral health in state-level efforts to improve delivery of Medicaid services, we promote equitable access to affordable and quality oral health care.[43] NC Medicaid's quality strategy[44] for managed care is a roadmap for continuous improvement. While this approach does not extend to the NC Medicaid Dental program, it does offer a framework that aligns with the task force's vision for an oral health system that is innovative, whole-person centered, and well-coordinated.[45] A clear plan for quality improvement that includes oral health and is related to beneficiary experience serves as a launching point for ensuring appropriate and timely access to care, promoting wellness and prevention, and better linking management and coordination to provide more wholistic care. A regular assessment of care quality serves as vital component, providing valuable insight into the effectiveness of current policies and interventions. This can create a constructive feedback loop where the experiences and perspectives of consumers directly inform policy changes, which can lead to more responsive and patient-centered oral health initiatives. This collaborative approach can establish a foundation for sustainable improvements in oral health outcomes.

Many evaluation tools are dependent on the provider. Post-care surveys, for example, may not be the most effective tool for acquiring feedback; providers state it is more likely that a patient never returns if they have a negative experience rather than providing negative feedback.[46] Surveys put the onus on the patient; it becomes their individual responsibility to detail their adverse experience. However, if a provider does receive negative feedback, there is not a consistent method of evaluating the patient experience; they too face an individual responsibility to respond.

Creating more pathways for providers to solicit feedback and patients to supply it, in more timely ways, enhances the overall quality of health care delivery. By actively engaging patients in the feedback process, oral health care providers can foster an environment of continuous improvement. A system-level approach takes into consideration the entire patient experience, from the initial appointment scheduling to post-treatment follow-ups. This approach allows for the consideration of the interconnectedness of these components, ensuring that each phase of the care process is optimized to enhance the patient's experience.

### *Context*

Practices currently get feedback through follow-up calls, surveys and questionnaires, patient interviews and focus groups, patient portals, and in-person questions at the end of a visit. Analyzing this feedback for use in informed decision-making may require several steps. Providers often lack the information technology to collect, report, and analyze data about consumer experience.[43] This creates barriers to adequately identifying and measuring progress. Without adequate information technology infrastructure, providers may struggle to capture comprehensive data, hindering their ability to gain understanding of areas for improvement. In 2021, DHHS launched the NC Medicaid Ombudsman program. This program helps Medicaid beneficiaries who have questions or issues with their coverage, providing education about Medicaid; referring beneficiaries to social workers, lawyers, housing specialists, and more; and communicating with DHHS regarding issues learned from beneficiary experiences to help the state work toward solutions.

The CMS National Quality Strategy is one recent tool to advance health equity, expand access to affordable coverage, and improve health outcomes. Launched in April 2022, this initiative focuses on improving quality across the health care system, including oral health care, and efforts to promote interoperability and data-sharing.[47] As this initiative continues to make progress, CMS will continue to look to external stakeholders, private payers, and others to partner in the implementation of its goals.[48]

In May 2022, NCDHHS released the NC Consumer Assessment of Healthcare Providers and Systems (CAHPS) report. The survey collected data on beneficiary experiences across health services within different levels of the health care delivery system. The primary goal was to collect and evaluate performance feedback to understand consumer Medicaid experience and use these data to inform improvements to care.[49] However, there were no indicators for dental health. In fact, questions specifically instructed responders to not include dental visits in responding to questions about health care experience.

In addition to creating sustainable avenues for patients to share their experiences, it is equally as important to identify strategies to best support patients once feedback is provided.[43] Engaging consumers and enabling actionable feedback increases consumer confidence and trust. Improving patient experience has become a priority for many health care providers, and implementing real-time mechanisms for processing feedback can lead to valuable insights for quality improvement.

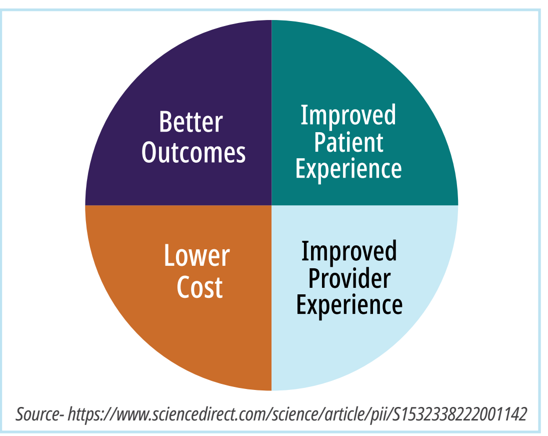
### *How would this impact oral health outcomes?*

Highlighting patient voices in experiences of oral health care is fundamental to both outcome and quality improvement.[50] Actively engaging with patients and creating meaningful outcomes is a vital component of creating efficient health care. Prior experience has a direct influence on how patients engage in the future with oral health providers.[51]

**Positive oral health experiences lead to higher satisfaction, improved adherence to treatment plans, and better health outcomes.**

*Source- https://www.mdpi.com/2673-6373/3/4/41*

Engaged patients are more likely to report satisfaction with care received and feel as if their needs have been addressed. Developing a dental care plan alongside a Medicaid beneficiary results in a higher likelihood of the patient taking an active role in their oral health.[51]




*Source- https://www.sciencedirect.com/science/article/pii/S1532338222001142*

## RECOMMENDATION 13

**Expand and improve data collection systems to improve access to and quality of oral health care delivery.**

***Strategy 29:*** The NC DHHS DPH Oral Health Section should continue to facilitate collaboration between NC DHHS, the UNC Sheps Center for Health Services Research, the North Carolina State Board of Dental Examiners, the North Carolina Oral Health Collaborative, NC Medicaid, and the State Center for Health Statistics to synthesize clinical, payment (claims), workforce, and public health data in a central location for researchers, payers, and practitioners to access this information to:

a. Assess the current state of unmet oral health care needs of adults and children in North Carolina.
b. Assess workforce needs and improve access to care and oral health outcomes.
c. Identify successes, priorities, and opportunities for measurable improvement.

***Strategy 30:*** NC Medicaid should provide resources to help oral health providers achieve meaningful practice improvements that will enhance consumers' experience, access, and outcomes. These resources may include:

a. Easily accessible information and training for enrollment, prior approval, claims submissions, and other administrative procedures that enable providers to participate in the program more efficiently.
b. Quantitative data that inform practices of their progress within the context of peer performance benchmarks.

$ ***Strategy 31:*** NC Medicaid should increase funding for the NC AHEC practice support coaching program to facilitate the inclusion of dental providers.

Data gathering plays a crucial role in meeting oral health improvement goals by providing valuable insights through the collection and analysis of relevant information. Data gathering allows oral health care professionals can identify prevalent oral health issues, assess risk factors, and tailor interventions to address specific needs within communities. It is also important for gaining appropriate funding for oral health programs.

Published data that examine patient experiences with oral health care are less available than similar data for medical care. In 2011, the national Institute of Medicine noted that few quality measures were used in public health to determine the overall quality of oral care, and there were no standards in practice to consistently measure this quality. Little has changed for standardization since the publication of this observation.[50]

Existing sources of data on oral health care include public health surveillance data, dental insurance claims, dental treatment and procedures, and dental workforce data. The Centers for Disease Control and Prevention (CDC) collects data through the National Oral Health

Surveillance System, Water Fluoridation Statistics biennial reports, and Synopses of State Oral Health Programs.[52] The Oral Health Section of NCDHHS conducts oral health assessments to determine unmet dental needs in communities and conducts annual kindergarten oral health assessments, as well as assessments in special populations (such as older adults, pregnant individuals, and youth with intellectual and developmental disabilities) on a five-year rotating schedule.[53]

While significant strides have been made in collecting oral health data, there are still gaps where additional information could provide insight to aid in improving oral health care. For example, addressing social determinants of health—such as income, education, and housing—can help address disparities in oral health outcomes. Assessing and understanding oral health literacy levels can guide the development of resources to improve health communication.

Current challenges with data collection hinder the development of comprehensive insights into oral health trends.[54] There is a lack of standardized data collection methods across different health care and oral health settings. North Carolina has a statewide health information exchange system that integrates dentists. However, this system comes with its own challenges. (Read more about NC HealthConnex on page 58.) Incomplete patient representation in data collection can also create obstacles. Certain populations, such as those with limited access to dental care, may be underrepresented, leading to potential disparities in addressing oral health issues. Data may not fully capture the barriers individuals face in accessing services, which can result in an underestimation of unmet oral health needs. Socioeconomic disparities may not be adequately reflected in available data.

Collecting dental assistant workforce data is also a challenge. There is no centralized system for collecting and maintaining data on dental assistants; further exacerbating the issue is that the roles and responsibilities of dental assistants can vary widely across different health care settings and regions. The diversity of workforce settings, including private dental practices, clinics, and hospitals, creates a challenge to creating a comprehensive portrait of the dental assistant workforce.

Data play a pivotal role in system transformation and improvement. They help policymakers understand oral health trends and identify priorities, contributing to more effective and targeted oral health interventions. Data also enable policymakers and health care professionals to effectively allocate resources to the populations with the greatest needs.[55] Performance data help dental practitioners and health care systems identify key areas for improvement, such as enhancing patient outcomes and streamlining processes. Data also serve as the foundation for understanding dental workforce needs and addressing shortages.

***Strategy 29:*** The NC DHHS DPH Oral Health Section should continue to facilitate collaboration between NC DHHS, the UNC Sheps Center for Health Services Research, the North Carolina State Board of Dental Examiners, the North Carolina Oral Health Collaborative, NC Medicaid, and the State Center for Health Statistics to synthesize clinical, payment (claims), workforce, and public health data in a central location for researchers, payers, and practitioners to access this information to:

a. Assess the current state of unmet oral health care needs of adults and children in North Carolina.
b. Assess workforce needs and improve access to care and oral health outcomes.
c. Identify successes, priorities, and opportunities for measurable improvement.

### *Desired Result*

Improved understanding of unmet oral health care needs at the regional and community levels and across consumer demographics such as age, income level, ethnic and cultural background, occupation, and health conditions including intellectual or developmental disabilities. Improved understanding of the challenges in the oral health care workforce and opportunities for improvement across regions, communities, and educational settings.

### *Why does the task force recommend this strategy?*

Emphasis on unmet needs, workforce assessment, and data-informed prioritization positions the state to target interventions that increase access to care, improve oral health outcomes, and address disparities. While data mechanisms exist, there is opportunity for more robust, concentrated data collection based on factors such as social determinants of health. Improving the accessibility of the data will also create a more responsive and effective oral health system.

With more robust data, services can be better tailored to the unique characteristics and requirements of diverse patient groups, which can lead to improvements in patient satisfaction and health outcomes. Access to health care services can be improved by assessing and working to meet workforce needs. The collaborative approach enables policymakers and health care providers to tailor interventions that address the root causes of oral health challenges. Addressing workforce needs plays a crucial role in the integration of data collection and accessibility efforts to create a more responsive oral health system.

### *Context*

Sheps Health Workforce NC,[56] based at the Cecil G. Sheps Center for Health Services Research, provides objective data and analysis on health workforce policy. Through the NC Health Professions Data System, Sheps Health Workforce NC disseminates descriptive data on dentists and dental hygienists in the state. Despite such existing data collection efforts, there is

much North Carolina can learn from other state initiatives about collecting valuable oral health data. Minnesota's state health department collects oral health workforce information and distributes reports on trends and incentives, categorized by dental assistants, dental hygienists, dental therapists, and dentists. The trends and incentives reports identify the healthiest counties, population-to-dentist ratios, and recommendations for improving access and expanding the workforce. The Oregon Health Authority compiles data on health outcomes, behaviors, and capacity related to oral health and publishes a surveillance report. The report includes data on pregnant people, children, adults, those on Medicaid, and the oral health workforce and infrastructure.[57] Washington State has a program for tracking the oral health workforce, identifying how its composition of occupations changes over time, how the workforce supply compares with other states, and how these trends affect the population's access to oral health care.[58]

### *How would this impact oral health outcomes?*

Data enhancement enables more accurate identification of oral health challenges. Improved data can serve as a catalyst for creating more strategic allocation of efforts and resources, maximizing the impact of initiatives and funding. This contributes to increased access to care, more education to improve oral health literacy, and more efficient distribution of resources to those who need them most. Optimized resource allocation will improve oral health outcomes through targeted interventions, increased awareness, and appropriate resource distribution. The availability of data enables efficient allocation of resources by identifying the areas with the greatest needs. This ensures that the resources—including workforce—are directed where they can have the most impact, optimizing the delivery of oral health services.

***Strategy 30:*** NC Medicaid should provide resources to help oral health providers achieve meaningful practice improvements that will enhance consumers experience, access, and outcomes. These resources may include:

a. Easily accessible information and training for enrollment, prior approval, claims submissions, and other administrative procedures that enable providers to participate in the program more efficiently.
b. Quantitative data that inform practices of their progress within the context of peer performance benchmarks.

### *Desired Result*

Improved patient outcomes at the practice level.

### *Why does the task force recommend this strategy?*

Reducing administrative burden for Medicaid oral health providers will allow them to allocate more time and resources to patient care.[59] Streamlining processes like applications and billing enables dental providers to focus on delivering high-quality services. This efficiency will not only enhance the overall patient experience but improve health outcomes by allowing dental providers to dedicate more time to preventive care, education, and patient engagement. Improved support for oral health care providers will bolster their capacity to deliver effective and equitable care. Adequate support systems will enhance the quality of services provided.

Quantitative data can offer measurable insights into multiple aspects of a provider's practice as well as patient outcomes. Data can allow providers to assess their performance, evaluate the effectiveness of different interventions and approaches, and make informed decisions about resource allocation. These data may also help providers understand the specific oral needs of their patient population, allowing for targeted prevention and education programs.

### *Context*

Dental Quality Alliance (DQA)[60] measures play a critical role in oral health care performance measurement. DQA measures are part of a broader framework for tracking dental quality and performance that encompasses clinical outcomes, patient experiences, practice processes, regulatory compliance, and population health management. While the DQA provides tools[61] to evaluate state-level dental data, mechanisms to analyze practice-level performance data are limited.

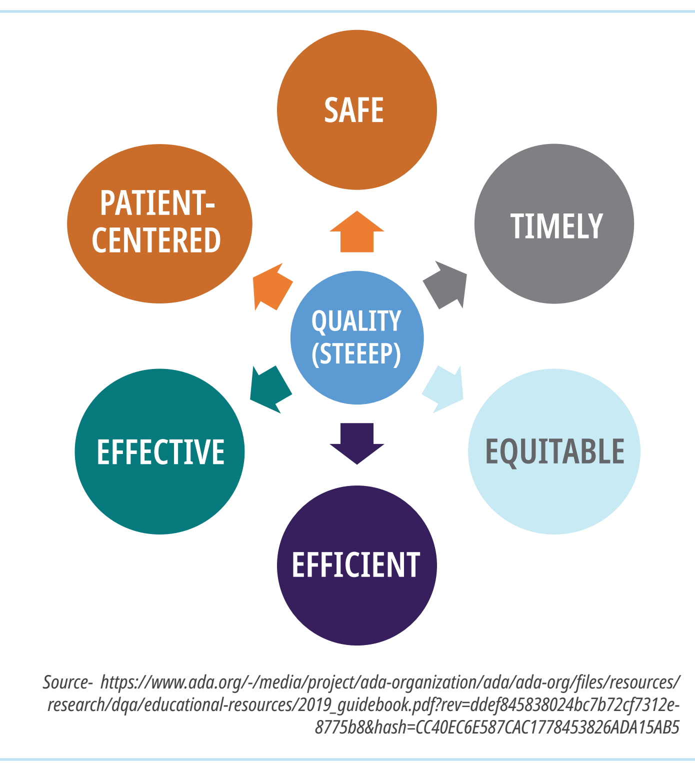
There is value in the ability for individual practices to compare their performance to that of their peers. The connection between performance metrics and practice improvement goals is a critical aspect of enhancing the quality of oral health care delivery.[62] Regularly collecting and analyzing quantitative data allows for the creation of timely goals and operational efficiency.[63] To achieve the level of practice improvement described in this strategy, we must identify innovative mechanisms for distributing and communicating comparative data in a way that is accessible to providers. Doing so will support provider accountability, encourage oral health providers to work toward individual and common objectives, and facilitate practice- and community-level improvement strategies. This process will also enable providers to share best practices, discuss challenges, and provide mutual support based on their experiences.

### *How would this impact oral health outcomes?*

By reducing administrative burdens and providing resources to streamline processes such as enrollment and claims submissions, oral health providers can allocate more time and resources to direct patient care. This allows for a greater focus on preventive care, education, and patient engagement, which are critical elements of promoting oral health.

By providing quantitative data that informs practices of their progress within peer performance benchmarks, providers can assess their performance, evaluate interventions, and make data-driven decisions to enhance the quality of services provided. This data-driven approach enables providers to identify areas for improvement, implement targeted interventions, and optimize resource allocation to meet the specific oral health needs of their patient population. Ultimately, by enhancing

the efficiency and effectiveness of oral health care delivery through streamlined processes and data-driven decision-making, this strategy aims to improve patient outcomes at the practice level, leading to better overall oral health and well-being within the community.




*Source- https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/dqa/educational-resources/2019_guidebook.pdf?rev=ddef845838024bc7b72cf7312e-8775b8&hash=CC40EC6E587CAC1778453826ADA15AB5*

$ ***Strategy 31:*** NC Medicaid should increase funding for the NC AHEC practice support coaching program to facilitate the inclusion of dental providers.

### *Desired Result*

Dental practices are supported and can implement practice management strategies to improve patient experience and oral health outcomes.

### *Why does the task force recommend this strategy?*

The integration of dental care within a comprehensive practice support coaching program can create a more cohesive approach to patient well-being and assist dental providers in adopting best practices. This support can lead to improved patient outcomes and better management of oral health conditions. Coaching on practice management strategies such as improving patient communication may contribute to improved practice efficiency. Emphasizing patient-centered care principles through the practice support coaching program can contribute to a more positive patient experience.

The practice support coaching program has demonstrated success, and it is effective in supporting health care professionals. NC AHEC practice support coaches have helped over 105,064 practices successfully address their practice support needs, including needs related to practice management, quality improvement, and health information technology. The tailored support offered to providers allows the coaching program to recognize and support the unique needs of each practice. The program also provides quality improvement technical assistance, focusing on helping practices redesign their administrative workflow to optimize their team and systems of care.[65]

### *Context*

In 2022, there were more than 5,900 practicing dentists in North Carolina[66] and approximately 76% of those were in private practices.[67] The involvement of private practice dentists in Medicaid is vital for creating an accessible and patient-centered oral health care system. Engaging private practice dentists significantly increases the provider network available to Medicaid beneficiaries; their presence in both urban and rural areas can help to reduce disparities in oral health care outcomes by creating more provider accessibility. Private practices may initially face increased administrative burden, as they are not supported by larger systems with more resources. Integration into the coaching program can help streamline these administrative processes, encouraging more private dentists to join and remain in Medicaid networks.

### *How would this impact oral health outcomes?*

Integrating oral health providers into the practice support coaching program can help ensure that patients receive better, more coordinated care, which would lead to improved health outcomes and better management of chronic conditions. The coaching program can provide a focus on patient education, including effective communication strategies. It can also support oral health providers in implementing quality improvement strategies, enhancing the quality of oral health care services. By addressing ways to improve patient follow-up and treatment compliance, oral health providers are more likely to see successful treatment outcomes.

**RECOMMENDATION 14**

**Integrate the oral health program into NC Medicaid initiatives aimed at increasing access to care by addressing social and environmental drivers of health.**

***Strategy 32:*** NC Medicaid should:

a. Develop a strategy to further integrate oral health into the NC DHHS Healthy Opportunities Pilots.

b. Integrate oral health into beneficiary health assessments for NC Medicaid Prepaid Health Plans and Behavioral Health I/DD Tailored Plans and develop a strategy to connect beneficiaries to a dental home.

c. Develop and distribute targeted oral health education materials to Tailored Care Managers, providers, and direct support professionals.

d. Develop an accurate real-time directory of dental providers who accept new Medicaid beneficiaries.

e. Develop and integrate consumer-focused online and print materials that describe member benefits, which may include:

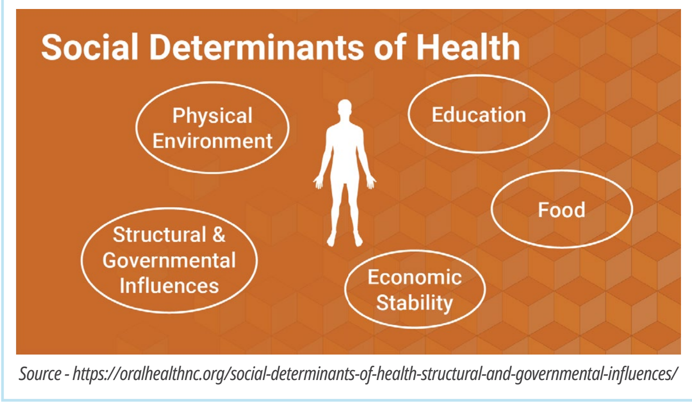
   i. Targeted language about oral health and clear directions for accessing the benefit.

   ii. Developmentally appropriate materials that are available in multiple accessible formats.

   iii. Inclusion of the dental benefit on member cards.

f. Collaborate with the NC DHHS DPH Oral Health Section to develop and publish an annual report that provides updates on important oral health data and outcomes in the state. This may include data on access to care, data demonstrating the impact of Medicaid expansion on oral health outcomes, and other successes and challenges experienced at the state level.

Social determinants of health (SDOH) are the conditions in which people live, work, learn, and play. These factors can affect a wide range of health outcomes. SDOH interact with environmental, biological, and personal determinants to shape individual health.[68] Inequities in oral health status, such as higher rates of untreated tooth decay, tooth loss, and oral cancer, are driven by these factors.[69] Oral health is an integral part of overall health, and considering oral health outcomes alongside other health indicators can provide a more comprehensive perspective on a person's health status. Oral health is also linked to systemic health conditions, such as chronic diseases like diabetes. Addressing oral health as part of SDOH initiatives can contribute to a more wholistic understanding of health outcomes. It also allows for the opportunity for early intervention. By identifying social and environmental factors influencing oral health, interventions can occur earlier. This can lead to fewer missed days at school or work and increase productivity. [68]




*Source - https://oralhealthnc.org/social-determinants-of-health-structural-and-governmental-influences/*

Oral diseases are disparately experienced and the burden disproportionately affects marginalized and vulnerable groups. Individuals with lower socioeconomic status face greater barriers to accessing dental care, preventive services, and education on oral health care practices. This may lead to delayed and inadequate treatment.[70]

The North Carolina Healthy Opportunities Pilots (HOP) comprise the nation's first comprehensive program to provide access to and evaluate the impact on high-needs Medicaid beneficiaries of evidence-based, non-medical interventions such as those related to housing, food, and transportation. Through HOP, NCDHHS ensures members can access pilot services in a timely manner and aims to strengthen community capacity for providing high-quality services.[71]

HOP launched in spring 2022 and operates in three geographic regions of the state. The federal government has authorized up to $650 million in Medicaid funding for the pilots over five years.[71] Services include utility set-up, housing move-in support such as accessibility and safety modifications, nutrition classes, healthy meals, and reimbursement for health-related public transportation.[72]

Understanding and addressing links between SDOH and oral health outcomes is necessary for developing effective interventions that aim to reduce oral health disparities. Socioeconomic factors often influence dietary habits, with lower-income individuals having limited access to nutritious foods. In North Carolina, rural residents are more likely to experience this problem, and poor nutrition and a high intake of fast food significantly increase the risks of tooth decay and gum disease.[73] Many rural communities also have difficulty accessing transportation to oral health providers, which may lead to extra time off work or school and incur other potential costs such as child care.[74] Limited access contributes to a higher prevalence of untreated dental issues and can lead to more severe oral health conditions over time.

***Strategy 32:*** NC Medicaid should:

a. Develop a strategy to further integrate oral health into the NC DHHS Healthy Opportunities Pilots.
b. Integrate oral health into beneficiary health assessments for NC Medicaid Prepaid Health Plans and Behavioral Health I/DD Tailored Plans and develop a strategy to connect beneficiaries to a dental home.
c. Develop and distribute targeted oral health education materials to Tailored Care Managers, providers, and direct support professionals.
d. Develop an accurate real-time directory of dental providers who accept new Medicaid beneficiaries.
e. Develop and integrate consumer-focused online and print materials that describe member benefits, which may include:
    i. Targeted language about oral health and clear directions for accessing the benefit.
    ii. Developmentally appropriate materials that are available in multiple accessible formats.
    iii. Inclusion of the dental benefit on member cards.
f. Collaborate with the NC DHHS DPH Oral Health Section to develop and publish an annual report that provides updates on important oral health data and outcomes in the state. This may include data on access to care, data demonstrating the impact of Medicaid expansion on oral health outcomes, and other successes and challenges experienced at the state level.

***Desired Result***

The NC Medicaid oral health program is well-integrated into all broader Medicaid programs, goals, and initiatives.

### *Why does the task force recommend this strategy?*

### *Promoting Whole-Person Care*

Whole-person health care recognizes and utilizes the interconnectedness of various aspects of an individual's well-being. Instead of focusing on treating specific symptoms, diseases, or body parts, whole-person care prioritizes the full integration of physical and mental health. This often includes the incorporation of dental health into overall physical health, recognizing that poor oral health affects overall physical health.[75] This bi-directional relationship facilitates a more wholistic approach to health care that enhances early intervention and comprehensive health management.

This investment in patient-centered care highlights individuals' needs and involvement in their health care. By prioritizing accessible and coordinated care, the oral health system enables patients to access the full spectrum of health. Further integration of oral health care into the Healthy Opportunities Pilots, for example, can address social factors that affect oral health such as access to care, socioeconomic status, and environmental influences.

### *Data-Driven Improvement*

Improved data and screening allow for the monitoring of oral health trends over time. This information is vital for assessing the effectiveness of interventions and adapting strategies as needed. Improved data can assist health care providers in more effectively allocating resources and prioritizing areas with the greatest need. Dental providers can also use data and screening to educate patients about their specific needs, risk factors, and necessary preventive measures.

Comprehensive data allow for the identification of risk factors, assisting providers in targeting preventive efforts to higher-risk individuals. This also aids in tailoring preventive strategies. Sharing relevant data with patients increases their understanding of their oral health status and encourages more active participation in their care, supporting autonomy by allowing for more informed decision-making. Improved data collection can also inform the development of Healthy Opportunities Pilots to ensure that integration of oral health into provider training and resources is robust and effective.

### *Connecting Patients to Consistent Care and Oral Health Education*

Connecting patients to a dental home offers a consistent and comprehensive source of dental care where they can receive ongoing, coordinated oral health services. Dental homes emphasize preventive care measures, aiding in the early detection of dental issues and reducing the risk of serious problems in the future.[76] Establishing a dental home also allows for communication and coordination between dental professionals and other health care providers. This is particularly important for patients with systemic health conditions.

Oral health education improves oral health literacy, and improved oral health literacy offers several benefits for individuals and health care systems. Individuals with higher levels of oral health literacy are better equipped to understand the importance of preventive measures, which can lead to a reduced incidence of dental problems.[77] These individuals are enabled to recognize early signs and symptoms of oral health issues, facilitating more timely and cost-effective treatments. There is a greater likelihood of benefit utilization, treatment compliance, and adherence to follow-up care plans.

### *Provider Engagement*

Provider engagement facilitates the seamless integration of oral health into broader Medicaid initiatives and promotes a patient-centered approach to care. Engaging oral health providers ensures that they are actively involved in state-led activities related to SDOH, such as the Healthy Opportunities Pilots. Integrating oral health into these initiatives will allow providers to more actively engage in activities that address underlying social factors influencing oral health outcomes, such as access to care, socioeconomic status, and environmental influences. Additionally, oral health providers play a crucial role in connecting patients to consistent

care and oral health education. By engaging with providers, Medicaid can leverage their expertise to develop targeted educational materials, training programs, and resources that promote oral health literacy, preventive care measures, and early intervention strategies. This collaborative approach not only enhances patient outcomes but also strengthens the overall integration of oral health into Medicaid programs, ensuring that oral health is prioritized as an essential component of comprehensive care delivery.

Furthermore, integrating oral health providers into overarching provider engagement strategies offers numerous benefits for the NC Medicaid program. This engagement fosters a more coordinated approach to patient care by promoting collaboration between oral health providers and other health care professionals. This collaboration facilitates communication and information sharing, allowing for comprehensive care coordination and more effective management of patients with complex health needs. Additionally, engaging oral health providers can help improve data collection and reporting efforts related to oral health outcomes, providing valuable insights for program evaluation and quality improvement initiatives. By actively involving oral health providers, NC Medicaid benefits from provider expertise and influence to drive innovation, advocate for policy changes, and implement best practices that improve access to oral health care services and address disparities in oral health outcomes. Ultimately, by prioritizing provider engagement and collaboration, NC Medicaid can strengthen its efforts to promote oral health equity, improve health outcomes, and enhance the overall well-being of Medicaid beneficiaries.

### *Context*

The policy strategy described here is rooted in both existing and new efforts aimed at fostering a more patient-centered Medicaid system that places a premium on accessibility, quality, and patient satisfaction. Current initiatives include integrating oral health into beneficiary health assessments for NC Prepaid Health Plans and Behavioral Health I/DD Tailored Plans and addressing the unique oral health needs of individuals, especially those with disabilities. Additionally, developing and distributing targeted oral health education materials to Tailored Care Managers, providers, and direct support professionals seeks to enhance awareness and understanding of dental benefits among Medicaid beneficiaries, thereby empowering them to make informed decisions about their oral health. These efforts would be complemented by the proposed development and publication of an annual oral health report, representing a significant stride toward enhancing oral health surveillance, evaluation, and policymaking efforts in the state. Modeled after successful initiatives in other states like Virginia and South Dakota, this report would serve as a comprehensive resource, providing stakeholders with valuable insights into oral health indicators, trends, successes, and challenges, and fostering collaboration, accountability, and advocacy within the oral health community. Recognizing the pivotal role of patient experiences in driving self-care and condition management, the strategy emphasizes the importance of measures of patient experience in identifying system issues, improving communication, and ultimately delivering higher-quality care that is truly patient-centered.

## *Medicaid Beneficiary Assessments*

Integrating oral health into beneficiary health assessments for NC Medicaid Prepaid Health Plans and Behavioral Health I/DD Tailored Plans presents a crucial opportunity to prioritize patient experience and address the unique oral health needs of individuals, particularly those with disabilities. The existing beneficiary health assessments in Medicaid plans, such as the NC Medicaid Diagnostic Assessment[78] and the 1915(i) assessment,[79] serve as potential tools for understanding the comprehensive health care needs of Medicaid beneficiaries. Including oral health components such as screening for dental issues, assessing oral health literacy, and identifying barriers to accessing dental care into these assessments will allow health care providers to gain a more wholistic understanding of patients' oral health status and needs.

For individuals with disabilities, accessing dental care can present significant challenges due to physical, cognitive, or behavioral limitations, as well as systemic barriers within the health care system. Integrating oral health into beneficiary health assessments is essential for identifying and addressing these barriers, promoting early intervention, and connecting beneficiaries to dental homes best equipped to meet their unique needs. Strategies for connecting beneficiaries to dental homes can include developing referral networks with dental providers experienced in treating individuals with disabilities, providing training and resources to health care providers on accommodating patients with special needs, and implementing care coordination mechanisms to ensure continuity of dental care. By embedding oral health components into beneficiary health assessments and implementing strategies to connect beneficiaries to dental homes, Medicaid plans can effectively prioritize patient experience in oral health and improve access to quality dental care for all individuals, including those with disabilities.

## *Beneficiary Resources and Materials*

Developing and distributing targeted oral health education materials to Tailored Care Managers, providers, and direct support professionals presents a critical opportunity to enhance awareness and understanding of dental benefits among Medicaid beneficiaries. Currently, resources available to beneficiaries often lack specificity regarding dental benefits, relegating them to general mentions within broader Medicaid services.[80] This creates a gap in knowledge regarding the scope and importance of dental coverage, potentially leading to underutilization of available dental services. By developing more comprehensive and accessible materials specifically dedicated to dental benefits, beneficiaries can gain a clearer understanding of the services covered, eligibility criteria, and how to access care. Examples from other states such as Virginia[81] and Connecticut[82] demonstrate the effectiveness of targeted oral health education materials in providing detailed information about dental benefits, including coverage for preventive services, restorative treatments, and emergency care. These resources serve to empower beneficiaries by equipping them with the knowledge needed to make informed decisions about their oral health and utilize available dental services effectively.

Tailored Care Managers, providers, and direct support professionals play a pivotal role in facilitating access to dental care for Medicaid beneficiaries, particularly those with complex health needs or disabilities. However, these stakeholders may also benefit from targeted oral health education materials to deepen their understanding of dental benefits and improve their ability to support beneficiaries in accessing appropriate care. By providing comprehensive resources that outline the importance of oral health, common dental conditions, preventive measures, and available services, care managers and providers can effectively advocate for the inclusion of oral health in care plans and facilitate referrals to dental providers. Additionally, direct support professionals can utilize these materials to educate and empower beneficiaries under their care to prioritize their oral health and navigate the dental care system effectively. By equipping stakeholders with the necessary knowledge and resources, Medicaid programs can foster a more collaborative and informed approach to oral health promotion and care coordination, ultimately improving oral health outcomes for beneficiaries across the state.

### *Medicaid Dental Provider Directory*

Developing an accurate real-time directory of dental providers who accept new Medicaid beneficiaries is crucial for ensuring access to dental care for Medicaid beneficiaries. Currently, there are two main directories available to help individuals find Medicaid dental providers: the Insure Kids Now website and the Medicaid Provider and Health Plan Lookup Tool.[83] While both platforms offer valuable information to help patients make informed decisions about which provider to pursue, they differ in certain aspects. The Insure Kids Now website includes a "last updated" date, which provides transparency and helps users gauge the timeliness of the information. The Medicaid Provider and Health Plan Lookup Tool offers details about the level of accessibility that providers can accommodate, which is essential for individuals with specific needs or preferences. However, one common issue across both platforms is the potential lack of accuracy regarding whether providers are actually accepting new patients, their specialties, and the ages they serve.

## *Integrated Care: Social Support in Dentistry*

*"I worked in a dental office as a treatment coordinator and saw the lack of resources for folks who might not be able to go to different health care offices because they don't have the time, transportation, resources, or financial means. If you're going to go into integrated care, it can't just be physical, it can't just be behavioral outpatient, it really has to be the whole-health picture."*

— Kelsey Yokovich, MSW

Read more about integrated care in oral health settings from the North Carolina Oral Health Collaborative.

The challenges with accuracy in the existing directories can lead to frustration and inconvenience for patients, as reported by task force members. Patients may end up calling multiple providers listed in the directories, only to find that they are not accepting new Medicaid beneficiaries or do not offer the services they require. This inefficient process not only wastes patients' time but also exacerbates barriers to accessing timely dental care. Developing a real-time directory that addresses these accuracy issues is essential for improving the patient experience and ensuring that Medicaid beneficiaries can easily find dental providers who meet their needs. This could involve implementing mechanisms for providers to update their information regularly, incorporating user feedback to verify the accuracy of listed providers, and enhancing search functionality to allow for more precise filtering based on patients' specific criteria and preferences.

### *Annual Oral Health Report*

The development and publication of an annual report that provides updates on important oral health data and outcomes in the state would be a significant step toward enhancing oral health surveillance, evaluation, and policymaking efforts. While such a report does not currently exist in our state, there is substantial value in establishing it as a foundational component of our oral health infrastructure. Annual reports serve as comprehensive resources that compile and disseminate key oral health indicators, trends, successes, and challenges, providing stakeholders with valuable insights into the state of oral health across various populations and geographic areas. Drawing from examples in other states such as Virginia[84] and South Dakota,[85] which have established robust oral health report cards and annual reports, our state can leverage similar efforts to inform evidence-based decision-making, evaluate the impact of interventions, and advocate for policies and programs that promote oral health equity and improve outcomes for all residents.

The purpose of an annual oral health report extends beyond mere data dissemination; it serves as a tool for accountability, transparency, and advocacy within the oral health community. By systematically collecting and analyzing data on access to care, oral health status, utilization of services, and other relevant metrics, the report would provide a comprehensive overview of the state's oral health landscape, highlighting areas of progress and areas in need of attention. Moreover, an annual report can facilitate collaboration and knowledge-sharing among stakeholders—including policymakers, public health officials, health care providers, advocacy groups, and the public—fostering a collective commitment to improving oral health outcomes. By establishing a statewide annual oral health report, our state can strengthen its capacity to monitor and address oral health disparities, track progress toward oral health goals, and ultimately promote the well-being of all residents through effective oral health policy and practice.

Patient experiences correlate to self-care and condition management. Patients with more positive interactions with providers are more likely to adhere to advice and treatment plans.[4] Positive patient experiences are also associated with better health outcomes.[86]

Measures of patient experience can also give light to system issues that have implications for safety, quality, and efficiency, such as gaps in communication.[4] Identifying potential patterns of dissatisfaction can provide valuable insights into challenges that may compromise patient care. Recognizing and rectifying deficiencies based on patient experiences leads to a more patient-centered approach and contributes to the broader goals of delivering higher-quality care.

### *How would this impact oral health outcomes?*

Integrating oral health into the broader NC Medicaid program supports a comprehensive, patient-centered, and preventive approach to oral health care. These initiatives can lead to earlier interventions, improved care coordination, and more positive health outcomes for Medicaid beneficiaries.[70] Timely identification and management of oral health issues contribute to better overall health.

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6

# CHAPTER SIX

## Bridging Vision to Action: Executing a Collaborative Implementation Plan for Oral Health Transformation

# 6 BRIDGING VISION TO ACTION: EXECUTING A COLLABORATIVE IMPLEMENTATION PLAN FOR ORAL HEALTH TRANSFORMATION

The implementation phase is an important step in transforming dentistry in North Carolina, turning vision and policy recommendations into actions that reshape how oral health is delivered. The Oral Health Transformation Task Force originated from a three-part plan championed by the North Carolina Oral Health Collaborative (NCOHC) to revamp oral health care.

**PHASE ONE:** The first phase focused on studying and gathering information to better understand challenges and opportunities for improving consumer and provider experiences within our system.

**PHASE TWO:** The second phase focused on the convening of the Oral Health Transformation Task Force, bringing together key players including health care experts, policymakers, and influencers to brainstorm ideas for transforming oral health care in North Carolina.

**PHASE THREE:** The focus of the third phase will be to share task force findings and create a roadmap for change. The work that happens in this phase will maintain the forward momentum established in the first two phases, continuing progress toward a health care system that offers equitable and integrated care.

North Carolina has many opportunities to commit resources to improve oral health outcomes. In the wake of Medicaid expansion, the state has reaffirmed its commitment to better access, investment in whole-person health, and support for North Carolina's health care workforce. This chapter aims to connect our vision for change with the steps we will take to make it happen. This collaborative effort will involve partners, advocates, legislators, and others named in this report, and emphasizes the need for us all to work together. Intentional prioritizing and planning will guide us in transforming oral health care.

## *Coalition and Network Development*

The development of an "Oral Health Transformation Coalition" is the first step of initiating phase three of this initiative. This coalition's core mission is to spearhead the implementation of recommendations outlined in this report, serving as a collaborative body responsible for moving task force progress forward. This coalition is dependent on collective action and robust partnerships. Collaboration between initial task force partners and intentional engagement of new stakeholders will be key to successful implementation.

The Oral Health Transformation Coalition is intended to be a supportive network tasked with creating and nurturing professional connections that actively contribute to the advancement of oral health transformation initiatives. The coalition's role includes leading information dissemination through effective communication strategies, developing and executing action plans, and monitoring progress to facilitate the transformation process. As a catalyst for change, this coalition will actively engage stakeholders and drive coordinated efforts essential to the successful implementation of oral health transformation strategies.

## *Communication Strategies and Objectives*

Effective communication plays a pivotal role in the successful implementation and adoption of task force recommendations and strategies. Our primary communication aim is to ensure that people understand the concerted effort made by task force members and to spread awareness about task force findings and recommendations.

### Identifying Target Audiences and Key Messages

Identifying target audiences and key messages helps us understand and reach groups that will go on to carry forward the recommendations outlined in this report. This intentional component of communication plan development informs the direction of our strategies. It allows us to tailor our approach to resonate with the unique needs, concerns, and interests of various stakeholders, including patients, health care professionals, policymakers, researchers, community advocates, and the public. By aligning our messaging to address the specific priorities of these diverse groups, we pave the way for enhanced engagement and support. This intentional targeting not only ensures that our messages are heard but also significantly contributes to achieving our outlined objectives by fostering understanding, advocacy, and a shared commitment to improving oral health access and care delivery for all.

As the state expands Medicaid, it is crucial to identify and reach new audiences who are impacted by this change. Engagement with diverse stakeholders is fundamental to ensuring that Medicaid expansion translates into improved oral health access and care. Within the oral health sector, there should be a specific focus on engaging key partners in oral health education, public health, and safety-net organizations. Additionally, engaging oral health organizations and partners is essential to reaching those directly involved in improving oral health access. Effectively engaging these diverse stakeholders aligns with our communication objectives, aiming to disseminate information widely and garner support for oral health improvements across various sectors and communities.

### KEY AUDIENCES TO ENGAGE IN PHASE THREE OF THE ORAL HEALTH TRANSFORMATION INITIATIVE

1. **Patients and General Public:** Individuals, families, and communities affected by oral health issues, as well as the broader public interested in health care improvements and policy changes.
2. **Health Care Professionals:** Dentists, dental hygienists, dental assistants, physicians, nurses, and other health care providers involved in oral health care delivery.
3. **Policymakers and Legislators:** Government officials, policymakers, legislators, and regulatory bodies involved in shaping health care policies, especially those related to oral health and health care access.
4. **Health Care Administrators and Organizations:** Leaders and decision-makers within health care institutions, hospitals, dental clinics, community health centers, and other health organizations.
5. **Public Health Officials:** Professionals in public health agencies and organizations responsible for population health, community health initiatives, and disease prevention.
6. **Academic and Research Communities:** Researchers, educators, and institutions focused on oral health, health care systems, public health, and related disciplines.
7. **Community Advocates and Nonprofit Organizations:** Advocacy groups, nonprofit organizations, community-based organizations, and stakeholders working on improving oral health access and equity including social workers, community health workers, peer support specialists, and doulas.

**Executing Integrated Communication Strategies**

Our communication strategies must involve a variety of approaches that speak to diverse audiences. We will create campaigns that convey information that is easy to understand and illustrate how oral health outcomes impact people's lives at various stages. To achieve this, we plan to deploy the following strategies:

- A joint press conference to emphasize shared priorities among key partners, including but not limited to the NC Dental Society, NC DHHS, dental schools, and North Carolina Oral Health Collaborative (NCOHC).
- Audience-specific resources and materials to include one-pagers, posts for social networking platforms, and videos.

The power of storytelling will underpin our communication efforts, sharing real stories to highlight the significance and desired impact of our mission. By employing a variety of communication channels and tailoring our message for different audiences, we aspire to ensure broad understanding and acceptance of the oral health transformation goals and strategies outlined in this report.

In the realm of oral health transformation, prioritization becomes imperative due to varying long-term and short-term adoption possibilities inherent in the policy recommendations provided within this report. Methods for prioritizing oral health initiatives are anchored in their feasibility, impact, and urgency. It will be essential to adopt an implementation strategy that aligns with a logical timeline, taking into account factors such as North Carolina legislative sessions, funding opportunities, and other influential factors impacting the adoption of oral health policies and strategies. Identifying key areas for immediate action within the transformation plan and offering opportunities to leverage recommendations and strategies is crucial, particularly as our state navigates through the inaugural phase of Medicaid expansion.

## Prioritization and Action Planning

Due to varying long-term and short-term adoption possibilities inherent in the policy recommendations provided within this report, one of the first tasks to be taken on by the Oral Health Transformation Coalition will be to identify methods for prioritizing report recommendations. Such methods will be anchored in feasibility, impact, and urgency.

Leading a collaborative effort to move from prioritization to tangible action plans is a key function of the Oral Health Transformation Coalition. This phase provides an opportune moment to assign responsibilities, set timelines, and allocate resources strategically to ensure effective execution of the outlined initiatives. It serves as the bridge between strategic planning and real-world implementation, shaping the course of action for the coalition toward achieving transformative changes in oral health care delivery.

## Monitoring Coalition Activities

Evaluation and monitoring of coalition activities is essential for successful coordination of efforts aimed at enhancing oral health. It is important for coalition members to adopt an evaluation framework that assesses progress at the following levels:

1. **Process Evaluation:** Evaluation of internal operations and processes that sustain coalition infrastructure and function.
2. **Impact Evaluation:** Measuring the effectiveness of the programs and interventions designed to achieve the coalition's goals and objectives.
3. **Outcome Evaluation:** Evaluation of changes in community health status resulting from the coalition's initiatives.[1]

Evaluation serves many purposes, including:

- Understanding impact and measuring effectiveness of coalition efforts.
- Identifying adjustments for improved results.
- Planning for potential challenges and barriers.
- Improving communication and outreach.
- Ensuring accountability to stakeholders, including funders and boards.[2]

Integrating evaluation practices not only substantiates the coalition's efforts but also fortifies its ability to adapt, refine strategies, and continuously strive for improvement in oral health broadly.

## Moving from Vision to Progress

The transition from envisioning change to realizing tangible progress is integral to the transformation of oral health care in North Carolina. The work of the Oral Health Transformation Task Force culminates in the initiation of a concerted effort toward implementing recommendations outlined in the report.

North Carolina stands poised at a juncture of numerous opportunities, especially with recent Medicaid expansion and a reaffirmed commitment to enhancing health care access while bolstering the state's health care workforce. This chapter serves as a bridge, connecting our vision for change with actionable steps. It emphasizes the imperative of collaboration among diverse stakeholders—partners, advocates, legislators, and others mentioned in this report—to prioritize and strategically plan for the transformation of oral health care delivery.

The establishment of the Oral Health Transformation Coalition marks a critical milestone in ushering in Phase Three of this initiative. This coalition, reliant on collective action and robust partnerships, aims to lead the execution of outlined recommendations, steering the momentum established by the task force toward effectual change. Through communication strategies, action planning, and comprehensive monitoring, this coalition will aim to engage the stakeholders who will be crucial for the successful implementation of transformative strategies. Now, planning converges with practical execution, propelling North Carolina toward a future of enhanced oral health care accessibility and delivery.

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# CONCLUSION

## CONCLUSION

In the current landscape of health care discussions, oral health is a critical issue that must not be overlooked when considering strategies and solutions for improving the overall health and well-being of North Carolinians. Widespread disparities in dental disease and access to care affect various demographics, perpetuating existing health inequities, particularly in rural areas. These disparities limit access to essential dental services, resulting in adverse oral health outcomes. Recognizing oral health as a fundamental component of overall well-being is crucial, as it influences not only physical health but also mental, social, and economic dimensions of individuals' lives. The urgency of addressing these disparities and promoting oral health is underscored by the far-reaching impact it has on the quality of life for individuals and communities alike.

***"Recent evidence indicates a person's general health is closely connected to his or her oral health. Conditions such as diabetes, pregnancy, cardiac disease, arthritis, stroke and dementia all have been shown to be negatively affected by poor oral health. Providing quality oral health care to these populations could save hundreds of millions of dollars in future medical costs and greatly improve quality of life.***

***The people of North Carolina deserve an oral health care system that contributes to their overall health."***

***– Dr. Frank Courts***

*https://www.ncdental.org/about-us/ncds-newsroom/2023/12/11/winston-salem-journal-oral-health-crisis*

This report addresses the urgent need to improve oral health outcomes across North Carolina. By examining factors influencing access to dental care the report offers a comprehensive understanding of the barriers that must be addressed to achieve equitable oral health for all North Carolina residents. From childhood to older adulthood, dental care plays a pivotal role in fostering overall health and wellness. Through targeted interventions aimed at promoting access to care and addressing systemic barriers, this report provides a roadmap for stakeholders to enact meaningful change. By acknowledging the interconnectedness of oral health with broader health and social outcomes, this report also emphasizes the necessity of collaborative efforts to advance oral health equity in North Carolina.

Successful fulfillment of the recommendations and strategies from the NCIOM Oral Health Transformation Task Force depends on engagement between a diverse group of interested parties and partners committed to taking action that leads to meaningful change in North Carolina's oral health outcomes. State-level policymakers, clinicians, educators, advocates, and other key partners must work together to address the economic and social barriers to good oral health. These leaders are important stewards of financial resources that address the interconnected factors impacting oral health. State and local leaders must also ensure attention and action are directed toward growing and sustaining the oral health workforce to best serve North Carolina's growing population.

# APPENDIX A

## NCIOM Oral Health Transformation Task Force Recommendations and Strategies

## RECOMMENDATION 1

**Support a patient-centered dental home model for NC Medicaid beneficiaries.**

***Strategy 1:*** NC Medicaid should maintain and strengthen its commitment to compensating providers for emphasizing prevention and delivering restorative care by:

a. Adopting service definitions for preventive care at recommended periodicities to improve patient health (e.g., three dental cleanings per year if needed for periodontal health).
b. Designing payment mechanisms and policies that acknowledge the complexity of the oral health care needs of Medicaid beneficiaries, especially considering high levels of deferred and delayed care due to systemic barriers to access.
c. Working with partners, such as the NC State Board of Dental Examiners (NCSBDE), to ensure that people receiving outreach and evaluation services become established patients in a dental home.

***Strategy 2:*** NC Medicaid should compensate providers for providing high-quality patient-centered and whole-person oral health care by:

a. Designing reimbursement mechanisms that will appropriately compensate practices providing flexible, patient-centered care for individuals with special health care needs and those who meet agreed-upon criteria for complex care needs.
b. Providing payment for care coordination and navigation services that promote the integration of oral health care with medical, behavioral, and social care needs for all age groups, including children and adults with intellectual/developmental disabilities (I/DD) and autism spectrum disorder (ASD).
c. Providing reimbursement for services that support culturally attuned care, such as interpreter services.

## RECOMMENDATION 2

**Improve access to care, including care for patients with special health care needs, by retaining providers, supporting innovative care, and enhancing access to specialty services.**

***Strategy 3:*** The NC General Assembly should establish a Medicaid Oral Health Payment Reform Task Force to:

a. Align compensation for oral health providers with state goals of improved access to care for current and future NC Medicaid beneficiaries.
b. Support NC Medicaid in increasing and expanding payment rates by:
   i. Developing a strategy to provide technical assistance on emerging and existing practices that will expand services reimbursed through Medicaid.
   ii. Prioritize increasing access to specialty care by increasing reimbursement for specialty providers.

***Strategy 4:*** NC Medicaid should address provider experience and administrative burden by:

a. Developing and implementing a strategy to identify administrative burdens for providers enrolled in the Medicaid program and working to reduce and eliminate barriers.
b. Partnering with the UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families to convene an ongoing provider working group to identify and track administrative barriers.

## RECOMMENDATION 3

**Promote and incentivize high-quality patient experiences and positive health outcomes.**

***Strategy 5:*** NC Medicaid should continue to advance practice improvement by:

a. Developing programs and identifying funding sources to provide monetary and non-monetary incentives for dental practices, such as consulting services, technical assistance, professional development, technology, and patient education resources.
b. Expanding the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey to include measures related to oral health.
c. Developing a consumer advisory council to identify and track administrative barriers related to consumer experience, leveraging the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey.

## RECOMMENDATION 4

**Ensure patients experience seamless and integrated physical, oral, behavioral, and social care through coordination and collaboration between oral health and medical practitioners.**

***Strategy 6:*** NC Medicaid, the NC Health Information Exchange Authority, the North Carolina Medical Society, the North Carolina Dental Society, the Old North State Dental Society, and the North Carolina Healthcare Association should collaborate to identify mechanisms for improved coordination and data-sharing between medical, behavioral, and social care.

## RECOMMENDATION 5

**Support community-based access to oral health care.**

***Strategy 7:*** The NC Office of Rural Health and the NC Community College System should collaborate with the NC Community Health Workers Association (NCCHWA) to provide effective community-based education on oral health by:

a. Including oral health information in community health worker (CHW) training and certification curricula.
b. Partnering with NC Medicaid to identify and pursue reimbursement for CHW services inclusive of oral health.

***Strategy 8:*** The Foundation for Health Leadership and Innovation (FHLI) should develop actionable strategies to increase oral health provider participation in the NCCARE360 platform and further build community network adequacy for effective oral health resource allocation and referrals.

$ ***Strategy 9:*** The North Carolina Healthcare Association and NC Medicaid should pilot a model for an emergency department referral program to improve access to comprehensive follow-up dental care for individuals who currently receive most or all dental care in emergency departments and urgent care settings.

*The dollar sign icon indicates strategies throughout the report that require financial investment for success. These activities need monetary resources to be implemented effectively and may yield substantial returns when properly funded.*

## RECOMMENDATION 6

**Strengthen the integration of the NC Medicaid oral health program into broader NC Medicaid initiatives and support interdisciplinary education and partnerships to promote oral health and provide care across the lifespan.**

$ ***Strategy 10:*** The NC Oral Health Collaborative (NCOHC) should:

a. Collaborate with the NC Community College System and NC AHEC to provide sustainable and complementary oral health training to community health workers, based on the curricular design identified by the NCCHWA.
b. Collaborate with the NC Pediatric Society and the NC Medical Society to identify strategies and tools to further integrate oral health into primary care.
c. Collaborate with NC Medicaid, the NC Dental Society, the Old North State Dental Society, the NC Department of Health and Human Services (DHHS) Department of Public Health (DPH) Oral Health Section, pediatric dentists, and dental schools to continue to identify priority oral health outcomes and metrics across the lifespan.

$ ***Strategy 11:*** NC AHEC should facilitate collaboration between medical and dental degree programs and coordination of placement in community interdisciplinary training sites.

***Strategy 12:*** The North Carolina DHHS DPH Oral Health Section should:

a. Expand strategies to further promote its integrative and collaborative education and training programs.
b. Collaborate with other divisions within NC DHHS to include oral health screening measures in existing and future health screening tools.

***Strategy 13:*** The NC Department of Public Instruction and philanthropic organizations should partner to coordinate and identify funding to support expanded access to school-based dental programs.

***Strategy 14:*** The UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families and NC DHHS DPH should support healthy beverage consumption among children and families through education, programs, and policies that support and align with expert recommendations outlined in the Healthy Beverage Consumption in Early Childhood: Recommendations from Key National Health and Nutrition Organizations.

## RECOMMENDATION 7

**Increase the number and improve distribution and diversity of members of the dental team in North Carolina with focus on Medicaid-serving and rural practices.**

***Strategy 15:*** The North Carolina State Education Assistance Authority should evaluate the rules and regulations for the Forgivable Education Loans for Service (FELS) program and develop a plan to eliminate repayment requirements that might adversely impact dental student participation.

***Strategy 16:*** The North Carolina DHHS DPH Oral Health Section should:

a. Seek funding to lead a collaborative effort to develop, deploy, monitor, and assess efforts to address oral health workforce issues.
b. Collaborate with the North Carolina Dental Society, NC Medicaid, the North Carolina Office of Rural Health, and the NC DHHS DPH Oral Health Section to develop and deploy an education strategy to increase awareness of oral health workforce challenges among the general assembly; local, state, and federal elected officials; economic development officials; and the public.
c. Provide data on the diversity of the current and projected workforce and convene oral health professionals, along with professionals from other sectors, to identify innovative and evidence-based strategies for retention.

***Strategy 17:*** The NC General Assembly should increase funding to the NC Community College System to expand program capacity for dental hygienists and assistants. Strategies include increasing the number of community college oral health faculty and developing a full-time position responsible for supporting new and expanded oral health program capacity for dental hygienist and assistant training and professional development.

$ ***Strategy 18:*** TNC AHEC should establish a statewide, full-time position dedicated to supporting dental health professional development as part of whole-person care, including continuing education, residency training, and oral health care in non-dental settings.

***Strategy 19:*** The North Carolina Oral Health Collaborative, the NC DHHS DPH Oral Health Section, the North Carolina Dental Hygienists' Association, the North Carolina Dental Assistants Association, and the North Carolina Dental Society should collaborate to identify and implement career ladders for dental hygienists and dental assistants.

***Strategy 20:*** The UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families should periodically convene the UNC Adams School of Dentistry, East Carolina University (ECU) School of Dental Medicine, the High Point University Workman School of Dental Medicine, and North Carolina community colleges to identify best practices to address challenges and opportunities to increase the diversity of the oral health workforce.

## RECOMMENDATION 8

**Expand scope of practice for dental hygienists and dental assistants to increase clinical impact, effectiveness, and efficiency.**

***Strategy 21:*** The North Carolina Dental Society, North Carolina Oral Health Collaborative, the North Carolina Dental Hygienists' Association, the NC Dental Assistant Educators' Association, and the North Carolina Dental Assistants Association should partner to convene a group to examine scope of practice for dental hygienists and assistants by:

a. Engaging dental hygienists and assistants to better understand professional needs and motivations.
b. Conducting research to analyze regulation, supervision, and scope of practice for dental hygienists and assistants by state.
c. Ensuring expanded dental hygienist and assistant representation on the North Carolina Dental Society Council for Prevention in Oral Health.

## RECOMMENDATION 9

**Elevate the oral health profession through early exposure and ongoing continuing education.**

***Strategy 22:*** NC AHEC, myFutureNC, and NC Health Occupations Students of America (HOSA) should collaborate to develop an initiative to prioritize and support pre-secondary oral health career exposure by:

a. Adding oral health career pathways components to the school-based oral health education program curriculum.
b. Including oral health in North Carolina high school academies of medicine.

## RECOMMENDATION 10

**Advance oral health career pathways and concentrations.**

***Strategy 23:*** The North Carolina Dental Society, dental schools, community colleges, and the UNC Gillings School of Global Public Health Dental Public Health Initiative for Healthy Children and Families should partner to:

a. Promote mentorship for oral health students to increase interest in serving in rural practice, safety-net settings, and other practices serving Medicaid patients and patients with special health care needs.

b. Develop pathways for practicing oral health professionals to become educators, instructors, and mentors for dentistry, dental hygiene, and dental assisting in a variety of educational and practice settings, including mobile dentistry and specialty care clinics.

c. Facilitate the connection between dental education programs, including UNC Adams School of Dentistry, ECU School of Dental Medicine, Workman School of Dental Medicine, and North Carolina community colleges.

***Strategy 24:*** The North Carolina Oral Health Collaborative should work with partners to increase options and improve accessibility for training oral health practitioners in core tenets and values of whole-person oral health care, including:

a. Implementing shared decision-making techniques and supporting the right to self-determination.

b. Supporting patient dignity, respecting human difference, and recognizing historical inequities.

c. Assessing and addressing social and economic need.

## RECOMMENDATION 11

**Expand and improve local and state public health data and human resources to catalyze community problem-solving.**

***Strategy 25:*** Local public health agencies and community-level health coalitions should assess and prioritize the oral health status of community members, opportunities for achievement of equitable outcomes, local assets and resources available, and feasible implementation strategies.

***Strategy 26:*** NC DHHS DPH and NC DHHS DPH Oral Health Section should continue to collect and disseminate oral health outcome data and develop resources for analyzing local data and supporting feasible implementation goals. Goals should include:

a. Conducting a statewide assessment to better understand the current state of unmet oral health care needs among adults and children in North Carolina.

b. Adopting validated oral health questions on North Carolina's Annual Behavioral Risk Factor Surveillance System (BRFSS) Questionnaire.

c. Developing and sustaining the data dashboard of publicly available, county- and state-level oral health metrics.

d. Disseminating information to local health departments, local health coalitions, and elected officials and health care leaders.

## RECOMMENDATION 12

**Build consumer trust by establishing clear and accessible pathways for understanding and improving consumer experiences within the oral health system.**

***Strategy 27:*** NC Medicaid should collaborate with county Departments of Social Services to identify and improve barriers to Medicaid enrollment and utilization.

***Strategy 28:*** Leaders and advocates in the NC Medicaid system should develop mechanisms to evaluate consumers' experiences with receiving oral health care and identify necessary support and actions for improvement.

## RECOMMENDATION 13

**Expand and improve data collection systems to improve access to and quality of oral health care delivery.**

***Strategy 29:*** The NC DHHS DPH Oral Health Section should continue to facilitate collaboration between NC DHHS, the UNC Sheps Center for Health Services Research, the North Carolina State Board of Dental Examiners, the North Carolina Oral Health Collaborative, NC Medicaid, and the State Center for Health Statistics to synthesize clinical, payment (claims), workforce, and public health data in a central location for researchers, payers, and practitioners to access this information to:

a. Assess the current state of unmet oral health care needs of adults and children in North Carolina.
b. Assess workforce needs and improve access to care and oral health outcomes.
c. Identify successes, priorities, and opportunities for measurable improvement.

***Strategy 30:*** NC Medicaid should provide resources to help oral health providers achieve meaningful practice improvements that will enhance consumers' experience, access, and outcomes. These resources may include:

a. Easily accessible information and training for enrollment, prior approval, claims submissions, and other administrative procedures that enable providers to participate in the program more efficiently.
b. Quantitative data that inform practices of their progress within the context of peer performance benchmarks.

$ ***Strategy 31:*** NC Medicaid should increase funding for the NC AHEC practice support coaching program to facilitate the inclusion of dental providers.

## RECOMMENDATION 14

**Integrate the oral health program into NC Medicaid initiatives aimed at increasing access to care by addressing social and environmental drivers of health.**

***Strategy 32:*** NC Medicaid should:

a. Develop a strategy to further integrate oral health into the NC DHHS Healthy Opportunities Pilots.
b. Integrate oral health into beneficiary health assessments for NC Medicaid Prepaid Health Plans and Behavioral Health I/DD Tailored Plans and develop a strategy to connect beneficiaries to a dental home.
c. Develop and distribute targeted oral health education materials to Tailored Care Managers, providers, and direct support professionals.
d. Develop an accurate real-time directory of dental providers who accept new Medicaid beneficiaries.
e. Develop and integrate consumer-focused online and print materials that describe member benefits, which may include:
   i. Targeted language about oral health and clear directions for accessing the benefit.
   ii. Developmentally appropriate materials that are available in multiple accessible formats.
   iii. Inclusion of the dental benefit on member cards.
f. Collaborate with the NC DHHS DPH Oral Health Section to develop and publish an annual report that provides updates on important oral health data and outcomes in the state. This may include data on access to care, data demonstrating the impact of Medicaid expansion on oral health outcomes, and other successes and challenges experienced at the state level.

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