

MINNESOTA STATE ORAL HEALTH PLAN 2020-2030

*Building Collaboration
for Collective Action*



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Dear Minnesotans,

The last year has been unprecedented. COVID-19 has impacted every aspect of our lives as we re-imagined life events and mourn loved ones lost. The impacts of the individual, community, and statewide sacrifices made in response to this global pandemic will reach far into the future. This includes the not-yet-known long term health burden of COVID-19 recovery. Dental professionals are among those who have made great sacrifices and are an example of rising to meet the challenge of care delivery in this “new normal.”

Oral health disparities in Minnesota are well known and have existed for many years. The pandemic has served to magnify disparities and inequalities of all types, including oral health. It has also served to increase need, as many more Minnesotans find themselves facing new or heightened economic burden directly linked to the pandemic. It is noted here that solving the dental access problem is not simple or easy. Many have been working to address oral health disparities for years. It takes intentional, concerted work by all of us.

I am encouraged by the successes Minnesota’s network of dental providers has achieved since the last State Oral Health Plan. These partners work tirelessly to address the unmet dental needs and improve access to dental health care services. They cannot do it on their own. Today’s call to action asks each of us to play a role in systems improvement towards oral health care access for every Minnesotan.

It is with pleasure and hope that I present Minnesota’s 2020-2030 State Oral Health plan. The Plan outlines strategies and goals for our state to advance oral health equity, increase access to care, prevent dental disease and improve overall oral health for Minnesotans. It includes five key focus areas:

- Oral Health Infrastructure
- Access to Oral Health Care
- Health Systems Integration
- Disability, Special Care Needs, and Inclusion
- Data

As we rebuild from the devastation of the COVID-19 pandemic, I am hopeful that this plan will act as a catalyst for positive change, healing, and growth. I encourage you to commit to partnership and advancing this work so we can create a community that protects, maintains and improves health for all.

Sincerely,



Jan K. Malcolm

Commissioner

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INTRODUCTION



Acknowledgments

We would not be able to publish this document without the tremendous support of diverse state agencies, associations, boards, medical-dental partners, stakeholders and community members. Thank you to the following partners who spearheaded stakeholder engagement to inform the Minnesota State Oral Health Plan for 2020–2030:



DENTAL SERVICES ADVISORY COMMITTEE

“In 2018, the Dental Services Advisory Committee (DSAC)¹ provided intensive input into the development of this Plan. DSAC is comprised of dental and public health professionals and consumers from across Minnesota. These oral health specialists encounter the real challenges facing Minnesotans to access oral health care through their fieldwork. The combined experience and expertise of DSAC members and participants informed the creation and development of this Minnesota Oral Health Plan for 2020-2030. The DSAC supports and endorses this Plan.”

–Sheila Riggs, D.D.S., M.S., DMSc, Chair of DSAC

MINNESOTA ORAL HEALTH COALITION (MOHC)

“The Minnesota State Oral Health Plan was one of the first activities involving people who would later comprise the Minnesota Oral Health Coalition (MOHC).² When the MOHC was granted its nonprofit status, the State Oral Health Plan was recognized as a guiding document. We are proud of the contributions of the MOHC Board of Directors and membership to the development of the Minnesota Oral Health Plan for 2020–2030. We look forward to the Plan serving as a tool for better access and healthier mouths for all Minnesotans.”

–Nancy Franke Wilson, M.S., Executive Director, Minnesota Oral Health Coalition

Honoring an Oral Health Champion

Many of the successes and opportunities to improve Minnesotans' oral health are due to the hard work of oral health advocates and champions across the state.



December 2020: The Minnesota Department of Health Oral Health Program and the Minnesota Oral Health Coalition jointly awarded Dr. Amos S. Deinard Jr., MD MPH with a lifetime achievement award for his unwavering commitment to the oral health of Minnesota's children.

Dr. Amos' motto is: "Go forth and Varnish." He and his team have spent years educating and engaging physicians to provide oral assessments and fluoride varnish for kids during their encounters with the doctor's office. He is an unwavering advocate for underserved children's health needs in Minneapolis, Minnesota, and beyond, and his passion is perhaps best exemplified by his work with the Minnesota Oral Health Project.³

Dr. Deinard, or Amos, as he prefers to be called, is well known in the health care field as an Associate Professor at the University of Minnesota Medical School Department of Pediatrics and School of Public Health. He is also known as "The Fluoride Guy." Amos launched the ambitious Childhood Caries Prevention Project that focused on oral health care anticipatory guidance and fluoride varnish treatments in Minnesota's primary care medical clinics. The project aimed to improve access to dental services for children insured through public health plans. What began with one staff member in Southwest Minnesota is now a statewide team of 15 Minnesota Oral Health Project (MNOHP) professionals, representing diverse public health and clinical backgrounds, who work with oral health providers, public health educators, and community advocates throughout the state to provide essential oral health care.

Amos' initial goal of implementing Childhood Caries Prevention in medical clinics is nearly achieved, with more than 99 percent of clinics providing this service through well-child and children and teen checkups. MNOHP staff and team members deliver Amos' messages about preventive care and fluoride varnish treatments to parents, schools, and communities across Minnesota via community presentations, social media opportunities, website education and materials, and stakeholder meetings.

Amos' legacy in improving oral health for all Minnesota children continues today through the work of the current MNOHP. In 2016, Amos received the National Lifetime Achievement Award for Public Health Dentistry—the first time a pediatrician was given this national recognition. His timeless message, "Go forth and varnish," continues to be heard throughout Minnesota, as well as nationally among oral health leaders.

Executive Summary

State Plans, such as this one, are cornerstones of public health practice. These plans guide state and local health departments, as well as partners, clinicians, policy makers, and funders. There exists a strong dental public health landscape in MN; providers and leaders who have a strong commitment to service, their fellow citizens, and motivation to Do the Right Thing. This document serves to uphold, support, promote and encourage Minnesota's Oral Health Champions. Each are heroes on their own. Together, they are Minnesota's Superstars.



Minnesota's first State Oral Health Plan is the foundation for this Plan. Extensive engagement of statewide stakeholders produced the first Plan. We could not have succeeded in the production of this update without that strong foundation. The development team for this Plan consisted of many of the same stakeholders, and some new ones. The lessons learned and experiences of statewide stakeholders informs the future. We hope we have collectively built a user-friendly, actionable, attainable dental public health road map for the next decade.

This Plan is organic, subject to course adaptations and alterations along the way. Not all good things can be done at once. Priorities are impacted by the society in which they exist. Available opportunities drive projects.

Now, more than ever, we are called to flexibility, adaptation, creativity. This Plan was created and drafted before SARS-CoV-2 appeared. In these unprecedented times, fluctuation has become a constant.

Proven and common methods for oral health care delivery have been turned upside down. In spite of the unknowns, we believe this Plan will support the new challenges ahead.

It is easy to get discouraged in this work. At times, the acute needs of real people seem much greater than the ability to resolve them. Some of our heroes have diligently worked on the recommendations contained in this Plan for decades. Yet, decay and tooth loss are relentless. Health determinants are known and studied, however achieving solutions is an on-going struggle. Even Superstars get tired.

We have to keep trying. Our state depends on it.



WHAT WE KNOW

Disparities in Minnesota mean some populations bear more of the burden of oral disease.

While Minnesota ranks sixth in the nation in national health measures,⁴ a closer look shows Minnesotans experience significant inequalities in the social determinants of health, including income, education, and home ownership. Minnesota also hosts some of the most severe health disparities among people of color and American Indians compared to whites.⁵ These institutionalized inequalities have led to low-income children and adults, people of color and American Indians, and people with disabilities to disproportionately suffer from dental diseases and oral conditions.

Co-occurring barriers impede people's ability to access dental care:

- Insufficient insurance coverage for health and dental needs;
- Disconnection across multiple disciplines in health infrastructure;
- A complex oral health system that is difficult to navigate, especially for people with low literacy; and
- Workforce shortage.

The SARS-CoV2 pandemic has spotlighted disparities in oral health. Communities facing barriers to oral health care are the same as those most at risk of complications from COVID-19, including older adults, people of color, and low-income adults and children. Dental offices in Minnesota were temporarily closed by order of the Governor to limit the spread of COVID-19. The burden of delayed and foregone care rests on those already suffering the most. The global pandemic has made clear disparities in our communities, and underscores the importance of equity in improving oral health.

WHAT WE HAVE ACHIEVED SO FAR

In the years since Minnesota's first State Oral Health Plan in 2013, the Minnesota Department of Health (MDH) and partners have collaborated to achieve major milestones. These included establishing a coalition of oral health experts, development and maintenance of a central oral health statistics system, and developing collaborative practice as a strategy to increase access to oral health care. The Plan has contributed to the mandate for fluoride varnish application at Minnesota's Child and Teen Checkups^{5b}, and the designation of MDH as the administrator of the Early Dental Disease Prevention Initiative (EDDPI).

A 2015 assessment of the first State Oral Health Plan 2013 identified additional successes and provided recommendations.

The assessment found the Plan informed project design and funding proposals; strengthened external communication; brought awareness to oral health disparities; aided in assessing opportunities for policy change; and provided a basis for emerging workforce models and medical-dental integration projects. A key recommendation was for MDH to be more methodical in ascribing ownership and commit to gathering inclusive input from various stakeholders.





OUR WORK FOR THE NEXT DECADE

The Minnesota State Oral Health Plan for 2020–2030 builds on the 2013 Plan. It serves as a blueprint for decision-makers and calls for collaboration to achieve oral health for all Minnesotans. MDH worked closely with [Minnesota’s Dental Services Advisory Committee](#); assessed national and state data; and received more than 200 comments from stakeholders to identify priorities for the Plan. This led to five focus areas, defined below. Each contain the strategy action categories of clinical, education, finance, policy, and workforce:



1

Oral Health Infrastructure: Strengthen, stabilize, and sustain Minnesota’s oral health infrastructure.



2

Access to Oral Health Care: Increase access to timely, culturally appropriate, geographically suitable, and financially viable dental care.



3

Health Systems Integration: Improve integration of medical and dental care systems to provide more holistic care.



4

Disability, Special Care Needs, and Inclusion: Make oral health care is accessible, safe, respectful, and timely for all Minnesotans who seek it.



5

Data: Share oral health data and indicators to inform data-driven strategies and actions.

Building collaboration will continue to be key for collective impact. The collaborative nature of our work to ensure oral health for all must mirror the interrelated ways social determinants of health can affect oral health for Minnesotans. Partnerships and collaboration across disciplines, agencies, and communities is a strong theme across the Minnesota State Oral Health Plan for 2020-2030.



The MDH Oral Health Program, stakeholders, and communities will continue to partner and collaborate on efforts to impact and advance the oral health of all Minnesotans, to put an end to dental diseases, and other oral health problems.



ORAL HEALTH IS INTRINSIC TO OVERALL HEALTH



Oral Health is Intrinsic to Overall Health

If the mouth is the window to the body, oral health status gives great insight into overall health. Oral health is no stranger to the public health approach; in fact, community water fluoridation is considered one of the most successful public health strategies in the 20th century. The idea of oral health being essential to overall health has gained considerable traction over the past two decades. In 2000, the Office of the Surgeon General published [Oral Health in America](#), a landmark report emphasizing the importance of oral health as an indicator of overall health and presenting an association between poor oral health and other chronic illnesses, such as heart disease and diabetes. Based on the emerging research supporting oral health as vital to overall health, [Healthy People 2030](#) focuses on reducing tooth decay and other oral health conditions and helping people get oral health care services.



“*Oral health can impact a patient’s quality of life, how they manage daily necessities. Not having access to dental care, for ANY reason, not only negatively impacts the patient, but those around them in a myriad of ways. — Stakeholder⁶*

Poor oral health can lead to significant pain and discomfort. Tooth decay, gum disease, craniofacial diseases, cleft lip and palate, traumatic injury, or even cancer can contribute to poor oral health. Fortunately, many of these conditions are preventable, saving individuals from their accompanying pain and costs associated with untreated dental care. MDH takes a [“health in all policies approach,”](#) acknowledging that health is created in the clinic, but also where people live, work, and play.

DISPARITIES IN MINNESOTA COMPOUND THE BURDEN OF ORAL DISEASE

Minnesota ranks sixth⁷ in the nation in national health measures.⁴ Although Minnesota has long enjoyed top rankings, a closer analysis of statewide outcomes indicates that this is not the reality for all Minnesotans. Minnesota experiences significant inequalities in the social determinants of health, including factors such as income, education, and home ownership. It also hosts some of the most severe health disparities with people of color and American Indians compared to whites. In 2014, [Advancing Health Equity in Minnesota: Report to the Legislature](#) illustrated the state’s severe racial health disparities, asserting that these significant and persistent disparities cannot be explained by biogenetic factors or individual choice. Rather, the report states those disparities are products of social and economic inequities, including factors such as poverty, unemployment, home ownership, and education, many of which are tied to structural racism in the state.

Oral diseases and poor oral health conditions can adversely impact a person’s ability to eat, speak, smile, as well as affecting confidence and quality of life. Although several oral conditions are generally preventable, many Minnesotans still suffer from the adverse effects of poor oral health. Much of this burden impacts low-income children and adults, people of color and American Indians, and people with disabilities. These populations disproportionately suffer from dental diseases and oral conditions due to structural barriers like limited access to and availability of oral health services, and absent or inadequate health and dental insurance.

HOW DISPARITY IN ORAL HEALTH SHOWS UP IN POPULATIONS

Children

Tooth decay is the most common chronic childhood disease; it is five times more common than asthma.⁷ Based on the Basic Screening Survey (BSS)⁸ of 2015, about half (49.5 percent) of Minnesota third graders either had a history of tooth decay or displayed tooth decay at the survey time. This rate was slightly higher than the Healthy People 2020 goal of 49 percent; however, the 2015 rate of tooth decay declined from 2010 BSS data that showed a rate of 55 percent of Minnesota third graders with tooth decay. Also, the percentage of Minnesota third graders with untreated tooth decay declined from 18 percent in 2010 to 16.6 percent in BSS 2015, which is lower than the Healthy People 2020 target of 26 percent.



“ Research shows that there are more and more systemic issues and illnesses that have a direct link to oral health conditions. — Stakeholder⁶



While overall rates declined, children from low-income households, rural communities, or communities of color bear a higher burden of tooth decay. Third graders eligible for free/reduced-price lunch program were 1.6 times more likely to have tooth decay than non-eligible students. Students living in rural communities were 1.3 times more likely to have tooth decay than students in urban areas. Moreover, Hispanic third graders were 1.4 times more likely to have tooth decay than White, non-Hispanic third graders.⁹ There is also disparity in preventative measures. Dental sealants (plastic resin applied to molars and premolars) are evidence-based to mitigate dental caries in school-aged children by preventing tooth decay and cavities.¹⁰ 2015 BSS data show that 60 percent of third graders—a much higher rate than the national target set by Healthy People 2020 of 28 percent—had at least one sealant on their permanent molars. However, third graders in public schools with low free/reduced-price lunch eligibility (i.e., higher-income households) were 1.5 times more likely to have dental sealants than third graders in public schools with high free and reduced-price lunch eligibility (i.e., lower-income households).

“ As a safety net pediatric clinic, we frequently see the devastating effects of inadequate oral health resources and access among our patients, especially low-income children and children of color. — Stakeholder ⁶



Adults

Yearly dental visits are essential to maintain healthy gums and teeth, prevent dental disease, and identify any treatment needs. According to the Behavioral Risk Factor Surveillance System (BRFSS), in 2016, 73 percent of Minnesota adults reported visiting a dentist or dental clinic within the previous year, compared to 65 percent of US adults. The BRFSS data reveal racial and socioeconomic disparities, with Hispanic adults, adults from low-income households, and adults without a higher education less likely to visit the dentist each year. Hispanic adults were 1.4 times less likely to have visited a dentist or dental clinic within the past year compared to non-Hispanic white adults.

Adults from homes with household incomes below \$35,000 were 1.4 times less likely to report visiting a dentist or dental clinic than adults from homes with a household income of \$35,000 or more. Adults with a high school degree only were 1.6 times less likely to visit a dentist or dental clinic within the previous year than adults with a higher education degree.

“ I work with individuals who are of low-income and see how desperate some of them are to get dental work and a general cleaning done but can't find a provider in their community to complete the work. —Stakeholder ⁶



Older Adults

Older adults are at risk of poor oral health due to limited workforce availability for geriatric oral health care, preventive care, and a lack of dental benefits through Medicare. Yearly dental visits continue to be integral to our oral health as we age, but over half of Minnesota adults aged 65 and older do not have dental insurance. Data from 2017 show that 32 percent of Minnesota adults over age 55 enrolled in a Minnesota Health Care Program (MHCP)¹¹ saw a dentist within the year.



2016 BSS data¹² showed that 40 percent of adults aged 65 and older and living in long-term care facilities had untreated tooth decay that was not filled or restored. Older men were 30 percent more likely to have untreated decay than women. The survey also showed that 59 percent of older adults had impaired dental function, defined as having fewer than 20 teeth. The 2016 BRFSS data showed that overall, 10 percent of Minnesota adults aged 65 and older had lost all their teeth.¹³

PEOPLE WHO ARE INCARCERATED

The Minnesota Department of Corrections (DOC) provides health and dental care services to about 8,000 incarcerated adults and juveniles in 10 facilities throughout the state. Nearly 18 full-time dental professionals provide care to this population with an annual budget of \$2.5 million. Many incarcerated individuals entered the corrections system with urgent or emergent dental treatment needs. Sometimes, a pending release date also creates an urgency, as the individual may not have dental care access after leaving DOC. Providers work to complete treatment plans, including the completion of removable prosthodontics, before the release date. Because DOC prioritizes these needs ahead of routine care (such as cleanings and fillings), routine care may be delayed for incarcerated individuals seeking routine care unless offsite dental services can be provided.

“ *To improve access, provider reimbursement for Medicaid needs to be like commercial patients. This is the only way the access issue will be improved. The current provider reimbursement structure is promoting discrimination for our state’s most vulnerable populations. — Stakeholder* ⁶



BARRIERS TO OPTIMAL ORAL HEALTH

Several external and internal barriers occurring simultaneously influence people’s ability to access dental care. An example of these barriers affecting access to dental care is that only about 40 percent of children (ages 1-20) eligible for Minnesota Child and Teen Checkups had at least one dental service during the federal fiscal year 2018.¹⁴ Overall, in the past five years, 31-36 percent of MHCP enrollees received at least one dental service. While MHCP provides low or no-cost insurance for Minnesotans in need, many dentists face administrative barriers which prevent them from accepting MHCP-enrolled patients.¹⁵

Several structural barriers impede people’s ability to access dental care:

- Insufficient insurance coverage for health and dental needs;
- Disconnection across multiple disciplines in health infrastructure;
- A complex oral health system that is difficult to navigate, especially for people with low literacy; and
- A workforce shortage.

These barriers further compound with language, transportation, childcare, work release, scheduling/appointments, and personal mobility. Individuals who receive dental benefit through [Minnesota Health Care Programs \(MHCP\)](#) face different challenges in accessing dental care than the populations on private insurance.

The workforce shortage is another large-scale barrier to dental care. Over half of Minnesota counties are designated as [dental health professional shortage areas](#) (Dental-HPSAs). This means the population of the county does not have adequate dental providers to care for them. Minnesota is no exception to the [Health Resources and Services Administration’s](#) prediction that the excess growth in demand for dentists would result in a national shortage of approximately 15,600 dentists in 2025.

The unique barriers directly linked to the Medicaid program are included as [Appendix: Medicaid Barriers](#).

“ People with special needs tend to not have the best insurance, therefore there are not many options for them. They can also have a hard time at the dentist and may need to have more options available to them than the general public. — Stakeholder⁶



People with disabilities have endured great difficulty during the pandemic. Diminished or eliminated services and supports have had, and will continue to have, negative consequences on independence, quality of life, and overall health maintenance. Underlying medical conditions make some individuals with disabilities at higher, or much higher, risk of Covid-19 infection; and at higher risk of severe infection. The long-term effects of isolation, lack of services, and post-Covid recovery, are unknown.

The COVID-19 pandemic has already impacted the dental care workforce and thus, availability of services. Dental care providers are conflicted about caring for their patients, yet keeping themselves and their own loved ones safe. In the short term, some dental care providers have pressed pause on delivering patient care. Some of those may not return to clinical roles. A portion of the workforce might not return to clinical, or retire sooner than intended.



“ We see people in our Emergency Room with dental problems because there isn't a dentist available on weekends or because they can't get an appointment on a short notice. This is [an] inappropriate use of emergency room visits and medical dollars. — Stakeholder⁶



MAKING INROADS TO OPTIMAL ORAL HEALTH



Minnesota has implemented innovative workforce models such as advanced dental therapists, dental therapists, and dental hygienists in collaborative practice to strengthen its oral health workforce's capacity to increase access to oral health care.



MDH's Health Care Workforce Planning Unit of the [Office of Rural Health and Primary Care](#) collaborates with the [Minnesota Board of Dentistry](#) to conduct an annual mandated workforce survey to track and analyze the trends among the licensed oral health workforce. It surveys dentists, dental assistants, dental therapists, advanced dental therapists, and dental hygienists, including dental hygienists in collaborative practice¹⁶ at the time of their license renewal—oral health professionals have a two-year renewal cycle. The survey asks about their work status, location, future work plans, job satisfaction, education, future training plans, specializations, and roles and responsibilities.



Survey data as recent as January 2020 show there are 4,191 licensed dentists, 100 licensed dental therapists and advanced dental therapists, 5,770 dental hygienists, and 7,418 dental assistants to serve 5.6 million state residents.^{17,18} Fifteen percent of dentists are near retirement age and 24 percent of dentists plan to only practice for the next five years or less. In Minnesota, the metro area has a concentration of dentists and rural areas do not have enough. Of practicing dentists, 63 percent are concentrated in the Minneapolis and Saint Paul metro area, home to about 54 percent of the state population. The number of potential patients that would be served by one dentist is smaller in urban areas (1,601 residents to one dentist) than in rural or isolated areas (3,938 residents to one dentist). A likely reason for the higher ratio is that while retirement creates job openings for recent graduates, it is challenging for these new dentists to realize the economic and practice opportunities in rural Minnesota.

REFLECTING ON WORK SINCE MINNESOTA'S FIRST STATE ORAL HEALTH PLAN

Minnesota's [first State Oral Health Plan](#), illustrated a shared vision for oral health for all Minnesotans. The Plan fulfilled three of the [five core conditions for collective impact](#); it served as a common agenda among stakeholders, provided data for shared measurements for some oral health measures, and encouraged mutually reinforcing activities. It addressed cross-cutting issues and the Centers for Disease Control and Prevention's (CDC) four chronic disease prevention and health promotion domains: epidemiology and surveillance, environmental approaches to promote health, health systems interventions, and community clinical linkages.

ACHIEVEMENTS SINCE THE FIRST STATE ORAL HEALTH PLAN IN MINNESOTA

MDH along with its oral health partners used the Plan as a framework to catalyze innovation in oral health care. Some of the success stories are highlighted below:



[Minnesota Oral Health Coalition \(MOHC\)](#)

The MOHC is a 501(c) organization that brings together oral health professionals, policymakers, and various stakeholders through statewide, regional, and local level conferences, discussion forums, and events to present and share successes, challenges, and solutions to oral health in the state. It was founded in 2009 through a cooperative agreement among the CDC, the Health Resources and Services Administration (HRSA), and the MDH Oral Health Program that appointed directors to advance oral health in Minnesota. In the coalition's early stages, MDH provided expertise and staff time to conduct evaluation activities. MDH provided significant resources to the coalition for staff time, meeting rooms, conference lines, virtual meeting services and maintain the coalition's webpage on the MDH website, membership database, and written products.



[Minnesota Oral Health Statistics System \(MNOHSS\)](#)

MNOHSS, pronounced "minnows", provides timely, accessible, easy-to-navigate, understandable, and actionable online state and county oral health data through the Minnesota Public Health Data Access portal. [Delta Dental of Minnesota Foundation](#) funded the initial infrastructure for MNOHSS. Administered by the MDH Oral Health Program, this interactive platform informs users of health disparities, trends in disease and service use, and unmet needs so that they can more efficiently target resources. Currently, the CDC supports its staffing.



[Collaborative Practice Authorization for Dental Hygienists in Community Settings.](#)

In Minnesota, dental hygienists who enter into a [collaborative practice agreement](#) with a licensed dentist may work in limited community settings without the dentist being present, thus allowing providers to meet people where they are (e.g., at a school, nursing home, or hospital). Dental hygienists require less training time than dentists to provide collaborative services. Adopting collaborative practice aligns with [Rural Health Advisory Committee 2018's strategies](#) for improving access to quality oral health care among underserved populations and those least likely to access routine preventive dental care in a private practice setting. This model allows more people receive the care they need and save on the cost of oral care delivery, while mitigating the challenges of an insufficient workforce to meet Minnesotans' oral health needs.



Mandatory Fluoride Varnish Application in the Child and Teen Checkups (C&TC) setting.

Fluoride varnish application is now mandated at all Child and Teen Checkups (C&TC) visits, starting at the first tooth's eruption or no later than 12 months of age, and continuing through 5 years of age.¹⁹ MHCP will cover four fluoride varnish applications per member in medical settings for 0-20 year olds.

In addition to the fluoride varnish application mandate, the following are the oral health required components for a complete C&TC visit:

1. Include the mouth and teeth as a part of the comprehensive physical exam.
2. Include oral health and caries prevention in anticipatory guidance.
3. Refer every C&TC-eligible child at every C&TC visit for routine dental care, beginning at the first tooth's eruption and no later than 12 months of age.

Prevention of early dental disease starts prenatally and is most effective in the first two years of life. Infants are far more likely to see a primary health care provider than a dental provider in their first two years of life. The American Academy of Pediatrics (AAP) stresses the role of the primary health care provider play in preventing early dental disease. The implementation of fluoride varnish application in the primary care setting along with referral to a dental home prevent early decay among children especially those who are at high risk for caries.



Early Dental Disease Prevention Initiative (EDDPI)

Minnesota's legislature designated MDH as the administrator for EDDPI. MDH developed a health integration prenatal-to-three program (P-3) called [Healthy Teeth. Healthy Baby.](#) The program has been collaborating with diverse communities, experts and partners to build integrated maternal and early childhood oral health systems of care that are equitable, sustainable, comprehensive, and inclusive of the health system. Healthy Teeth. Healthy Baby. promotes prevention of early dental disease and increases family-centered access to oral health education and care.

MDH has administered mini-grants, provided technical assistance, engaged communities to develop [communication materials](#) and distributed oral hygiene kits as incentive to promote P-3 oral health. MDH engages pregnant women, parents and caregivers to tailor the program to meet the unique cultural needs of Minnesota's communities.

MDH continues to work with key audiences to increase state-level infrastructure and capacity to strengthen statewide maternal and early childhood oral health systems of care.

Professional organizations, local public health, maternal and child health experts, and others continue utilizing campaign materials in their daily work.

EVALUATION OF MINNESOTA'S FIRST STATE ORAL HEALTH PLAN

In 2015, MDH assessed the quality and the initial impact of the first State Oral Health Plan (2013), finding that it:

- Informed project design and funding proposals;
- Helped in communication with donors and policymakers;
- Brought awareness to oral health disparities;
- Aided in assessing opportunities for policy change; and
- Provided a basis for emerging workforce models and medical-dental integration projects.

MDH determined that the 2013 State Oral Health Plan had the necessary components to support implementation of the Plan's strategies: stakeholder buy-in, comprehensiveness, and use of evidence on which to base strategies. However, the state's limited budget for dental services, the absence of oral health policies, and a lack of integration of oral disease programs with other chronic disease prevention programs were notable barriers to successful implementation of the 2013 State Oral Health Plan.

The stakeholders encouraged the MDH to be more methodical in ascribing ownership and commit to gathering inclusive input. Furthermore, the evaluation indicated a need for aligning goals and objectives with Healthy People goals as well as creating and sharing summaries of progress on the goals and strategies.

The full evaluation report is available upon request.



MINNESOTA STATE ORAL HEALTH PLAN FOR 2020-2030





2020–2030 Oral Health Plan

The Minnesota State Oral Health Plan 2020-2030 is a road map for decision-makers in public health, oral health policy, dental care, and oral health education to improve patients' oral health.

The Plan presents oral health priorities for the next decade, identifies best practices to be adopted by stakeholders, and ensures principles of health equity, health literacy, and cultural competence are included in oral health priorities for the state.

Development of State Oral Health Plan 2020-2030 was built on the revisions of the first SOHP and the recommendation received by evaluating the first state oral health plan. Objectives and strategies were developed through extensive stakeholder engagement, national and state indicators, and the use of data available on MNOHSS.

MDH worked with the [Dental Services Advisory Committee](#) (a state-mandated committee to advise the Commissioner of Human Services), the [Minnesota Oral Health Coalition](#), and other oral health stakeholders to identify opportunities, priority areas, and strategies that inform this Plan. MDH received feedback through more than 200 public comments, including input from professional organizations, academic institutions, state and local public health agencies and programs, nonprofit organizations, and the community. [Appendix: Emerging Findings: Survey Input on Minnesota Oral Health Strategic Planning \(pg 63-67\)](#), summarizes responses from that survey.

FRAMEWORK AND STRUCTURE

Goal

Through collaborative efforts on objectives and strategies outlined in this Plan, our goal is to improve and maintain the optimal oral health of patients. The goal of this Plan aligns with national priorities including [Healthy People 2030](#) and the [Centers for Medicare and Medicaid Services' measure inventory](#).



Approach

The Plan's strategies follow the Life Course Approach. As a result, strategies are developed for specific age groups: **childhood, adolescence, adulthood, and older adulthood** based on the Life Course Approach theory.²⁰ This approach generates a better understanding of individuals' oral health and incorporates both life span and life stage concepts that determine the oral health trajectory. While envisioning a decade that moves the oral health of Minnesotan's forward, these strategies were also developed with three foundational pillars at the core of the Plan.

HEALTH EQUITY: Achieving the conditions in which all people can attain their highest possible level of health. Every person can realize their health potential—the highest level of health possible for that person—without limits imposed by structural inequities.²¹

HEALTH LITERACY: Title V of Patient Protection and Affordable Care Act of 2010 defines health literacy as “the degree to which an individual can obtain, communicate, process, and understand necessary health information and services to make appropriate health decisions.”²² It is also thought of as “a patient's ability to obtain, understand, and act on health information; and the capacity of health care providers and health care systems to communicate clearly, educate about health and empower patients.”²³

ACKNOWLEDGING DIVERSE NEEDS AND PRIORITY POPULATIONS: Many communities have had less access to oral health care due to challenging circumstances. Oral health disparities continue to exist for many historically marginalized populations based on racial, socioeconomic, gender, sexual orientation, age, and geographical areas (e.g., rural compared to urban), among other factors. Some communities have access to more dentists, healthy options, and other factors, which makes its community members less likely to have significant oral health problems. Cost of dental services can also be a barrier for low-income or homeless community members, who disproportionately identify as a person with a disability or Black, Indigenous, and/or as people of color and are also more likely to be underinsured or not insured. Other people are more likely to be at increased odds of facing oral health issues due to the stage of life that they are in, such as being pregnant or advanced age. Limited language interpretation is also a barrier to accessing services, as is a lack of culturally relevant messages. Therefore, the strategies in this Plan strongly emphasize efforts to reach all populations equitably and make culturally relevant services and materials.

Any individual, family, caregiver, or community that self identifies or represents the following population groups: children (aged 0-17), pregnant women or expectant mothers, young adults (aged 18-25), older adults (aged 65+ years), the homeless, rural residents, low-income, uninsured or underinsured, people of color and American members of Lesbian, Gay, Bisexual or Transgender communities immigrants and refugees, people with Limited English Proficiency (LEP), people with disabilities, mental illness, chronic disease, and other special needs, and anyone facing challenges which restrict access to health care. Please note that this is not an exhaustive list of diverse population groups, and we acknowledge all forms of identity and lived experience.

BEST PRACTICES

A [Best Practice Approach](#) is defined as a public health strategy that is supported by evidence for its impact and effectiveness. Evidence includes research, expert opinion, field lessons, and theoretical rationale. The term “Best Practice Approach” is intended to emphasize there is more than one “best” implementation strategy that may produce successful outcomes. The context of community programs, and the environment in which they are developed and implemented, may impact whether an implementation strategy is successful. Variables to consider are: leadership, political acceptability, available resources, feasibility, and implementation constraints that are specific to a program’s environment. These variables will influence the acceptability and adaptability of [best practice approaches](#).



MDH worked extensively with the Dental Services Advisory Committee (DSAC), a state mandated committee to advise the Minnesota Department of Human Services (DHS), the Minnesota Oral Health Coalition (MOHC), and other oral health stakeholders, to identify opportunities and priority areas for 2020–2030.

National and state indicators and MNOHSS data informed this Plan. Additionally, MDH received more than 200 public comments, including input from professional organizations, academic institutions, state and local public health agencies and programs, nonprofit organizations, and community members about what is important to refine priority areas and goals for improving oral health. Where relevant, quotations from the public input survey are presented in this Plan.⁶ MDH and its plan development partner, The Improve Group, created a full inventory of potential strategies and identified gaps where additional strategies were needed.

Ultimately, this Plan is a mutually agreed upon tool for the entire state; it is not just a plan for MDH. Everyone needs to collaborate for collective impact. This Plan represents feasible strategies that serve the state’s oral health goals informed by many different stakeholders. Some of the input on strategies was modified for clarity or combined into one aggregated strategy. Goals and strategies were refined based on [CDC’s Framework for Comprehensive Oral Health Plans](#), prioritizing setting data-driven goals, and selecting a capacity-driven feasible, science-based, and effective strategy. It is noted that this Plan may not have identified or addressed every consideration. MDH plans to design an outcome evaluation to measure implemented strategies. MDH will invite public comment, conduct roundtables, and will update this Plan periodically.

HOW STRATEGIES ARE ORGANIZED IN THE MINNESOTA STATE ORAL HEALTH PLAN

Five focus areas

It is important that action to improve oral health throughout the state is multidisciplinary and from various places of influence and expertise. Hence, this Plan presents strategies by focus areas:

Focus Areas	Vision	Strategy for 2020–2030
1. Oral Health Infrastructure	An effective and sustained oral health infrastructure that better meets patients' needs.	Strengthen, stabilize, and sustain Minnesota's oral health infrastructure.
2. Access to Oral Health Care	All Minnesotans have equitable opportunities to access oral health care.	Increase access to timely, culturally appropriate, geographically suitable, and financially viable dental care.
3. Health Systems Integration	Minnesotans receive holistic care through integrated medical and dental care systems.	Improve integration of medical and dental care systems to provide more holistic care.
4. Disability, Special Care Needs, and Inclusion	People with disabilities and special care needs maintain a lifetime of good oral health.	Make oral health care accessible, safe, respectful, and timely for all Minnesotans who seek it.
5. Data	Oral health infrastructure is data-driven, and the diversity of stakeholders are consistently well-informed to address oral health needs.	Share oral health data and indicators to inform data-driven strategies and actions.

Five strategy action categories

Within each focus area are the following *strategy action categories*:

Clinical: Oral health or primary care professionals or settings responsible for delivering health care.

Education: Individuals, organizations, or systems that provide knowledge, training, and strategies that promote oral health.

Finance: Individuals or systems that influence funding at the local, state, and national level.

Policy: A definitive course of action taken by a group such as government, organizations, or the state Legislature. This could include regulations, a norm, or a statutory mandate.

Workforce: Individuals engaged in or available for medical, oral health, or allied work at the community and state level, i.e., the professionals accomplishing care delivery.

Oral health is important throughout our lives but there is special consideration for age ranges and health status. Therefore, this Plan includes strategies that are more relevant to one or more life stages.

FOCUS AREA 1: ORAL HEALTH INFRASTRUCTURE



Focus Area 1: Oral Health Infrastructure



VISION:

An effective and sustained oral health infrastructure that better meets patients' needs.

STRATEGY:

Strengthen, stabilize, and sustain Minnesota's oral health infrastructure.

DEFINITION

The Oral Health Program Infrastructure refers to an interconnected set of systems, people, relationships, and resources to meet the needs of all Minnesotans and provide [10 essential public health services](#). MDH Oral Health Program must be sustained with long range vision in order to plan, establish, and carry out improved oral health for all Minnesotans. Financial stability allows the Oral Health Program to plan and execute short to long term initiatives. Sustained, it can coordinate the common agendas with the local public health agencies and enable communities to focus on preventing and investing in long-term oral health outcomes. Yet, the current reliance on federal funding limits the capacity and prioritization capability of the MDH Oral Health Program. There is a need to increase the dental public health infrastructure at the state and local levels to monitor the oral health status of Minnesota's population, promote evidence-based public health strategies, and ensure coordination and collaboration among stakeholders.

With support from earmarked state dollars, the MDH Oral Health Program will be well-positioned to meet the specific needs of Minnesotans, especially at-risk populations. Designated state funding, along with federal and private funding are critical for the MDH Oral Health Program to maintain qualified staff, use technological advances, provide detailed surveillance and data storage, establish uniform data reporting, evaluate programs, and support partners to implement projects and expand services.

Broadly, it is important to ensure that oral health remains strong among competing priorities and that a focus on oral health is integrated with other health or disease priorities. Furthermore, it is essential to achieve parity between oral health infrastructure and other public health infrastructure.

RATIONALE

Improved oral health infrastructure is needed to meet patients' needs, including support for priority populations. One role of oral health advocates is to demonstrate the value of robust oral health infrastructure to decision-makers and funders. In "making the case," advocates should demonstrate what the existing infrastructure has been able to accomplish, then identify gaps that could be addressed through more generous support.

BEST PRACTICES

- Association of State and Territorial Dental Directors' [State oral health infrastructure and capacity: Reflecting on progress and charting the future](#).
- The Network for Public Health Law's [Policy frameworks supporting school-based dental sealant programs](#).
- CDC's [Basic Strategies for Collective Impact](#).

Focus Area 1: Oral Health Infrastructure

STRATEGY ACTIONS FOR FOCUS AREA 1: ORAL HEALTH INFRASTRUCTURE

The following actions are recommended for implementing Focus Area 1's strategy: Strengthen, stabilize, and sustain Minnesota's oral health infrastructure.

A. Clinical actions for Focus Area 1: Oral Health Infrastructure

1. Screen for oral health in multiple health care settings.
 - Promote mandatory screenings in WIC programs.
 - Increase oral health screenings performed by all health care professionals.
2. Promote prevention.
 - Include oral health in the efforts to prevent overall health problems.
3. Collaborate with local public health agencies
 - Identify opportunities to better serve patients in the community.
 - Share data.



B. Education actions for Focus Area 1: Oral Health Infrastructure

1. Start early.
 - Increase dental care and education available to students that are in preschools and/or Head Starts.
 - Develop new or endorse existing continuing education programs about oral health (online and in-person) for dental and medical care providers for pregnant women and their children.
 - Enable oral health education and preventive services in schools with a higher need for oral health care interventions.
 - Partner with the Minnesota Department of Education for oral health education and intervention in schools.
2. Raise awareness.
 - Promote education about telehealth.
 - Make public service announcements about simple self-exams for suspicious mouth lesions and provide information about the next steps.
 - Ensure that local health agencies, school nurses, clinics, and community centers have available patient education resources/tools on oral health, including information about the impact of oral health on physical health.
3. Educate decision-makers.
 - Educate legislators on the importance of having a sustainable oral health infrastructure within MDH to solve pressing issues about access to dental services and oral health care.
 - Provide oral health communications and education to policymakers and the public to improve awareness about oral health.

Focus Area 1: Oral Health Infrastructure

4. Understand local issues.
 - Examine oral health data to help determine gaps in local oral health systems and programs.
5. Build capacity.
 - Support community-level oral health interventions.

C. Finance actions for Focus Area 1: Oral Health Infrastructure

1. Diversify funding.
 - Seek earmarked state funds to support and sustain the MDH Oral Health Program, to decrease reliance on grants and other external funding streams.
 - Create new partnerships that ensure available and diversified funding for the MDH Oral Health Plan.
 - Explore non-traditional financing options, like federal programs for priority populations, to support oral health initiatives.
2. Seek connections in funding streams.
 - Promote integration opportunities with other funded programs internally within MDH and other state agencies and externally with public and private organizations.
3. Fund education.
 - Fund evidence-based strategies such as the School Sealant Program, community water fluoridation, and fluoride varnish application.
 - Fund public education materials and campaigns focused on the benefits of oral hygiene at home, drinking fluoridated water, and receiving dental sealants.
4. Fund information-gathering.
 - Designate funds to launch and sustain the statewide Fluoride Varnish Registry.
 - Advocate for funds to support routine Minnesota oral health surveillance activities such as the Basic Screening Survey (BSS) and the Behavioral Risk Factor Surveillance System (BRFSS).
5. Incentivize good oral health practices.
 - Provide financial incentives to the creation of onsite dental operator, fixed or portable, in facilities where pregnant women and children gather.
 - Promote incentive/loan repayment for those who enter into a collaborative agreement in rural Minnesota.
6. Study costs and savings.
 - Examine the cost savings of preventative dental services versus restorative services.
 - Conduct an analysis comparing days missed from school for dental pain and/or restorative dental appointments; pilot this with one rural school system.

Focus Area 1: Oral Health Infrastructure

D. Policy actions for Focus Area 1: Oral Health Infrastructure

1. Ensure components for a stronger oral health infrastructure.
 - Ensure recognition of oral health as a critical component of the public health infrastructure in Minnesota.
 - Support the MDH Oral Health Program as the central program for oral health promotion, surveillance, and coordination of oral health initiatives for Minnesota.
 - Support national efforts to include dental coverage in Medicare Advantage Plans for dental and primary care providers.
2. Inform policy.
 - Identify gaps to fill in oral health coverage across age groups, regions, and race/ethnicity.
 - Inform policymakers at all levels of the need for sustaining oral health infrastructure.
 - Endorse evidenced-based oral health strategies and best practices as a part of the oral health curriculum in dental and hygiene schools.
 - Include oral health in data gathering, community planning, and patient/client education.
3. Advocate for more intervention.
 - Call upon policymakers to demonstrate needed leadership to improve the oral health of residents residing in supportive care facilities.
 - Support legislation that requires all Minnesota children to receive age-specific oral health education delivered by oral health professionals at school.
 - Develop and promote integrated policies, such as maternal child and oral health protocols, to improve the oral health of priority populations and to strengthen health systems.

E. Workforce actions for Focus Area 1: Oral Health Infrastructure

1. Provide technical assistance.
 - Help partners initiate sustainable oral health programs in schools and communities.
 - Support community coalitions in implementation of oral health programs.
 - Support dentists, dental therapists, and dental hygienists in collaborative practice to provide oral health services utilizing mobile equipment.
 - Collaborate with non-dental partners on sustainable projects to promote oral health as a necessary component for overall health.
2. Ready the workforce.
 - Engage the current dental workforce in the collaborative practice dental hygiene model.
 - Work to expand the use of collaborative practice statewide and in non-traditional settings.
3. Incentivize education.
 - Partner with professional associations to create continuing education courses for oral health professionals focused on health literacy and cultural competency.

FOCUS AREA 2: ACCESS TO ORAL HEALTH CARE



Focus Area 2: Access to Oral Health Care

VISION:

All Minnesotans have equitable opportunities to access oral health care.

STRATEGY:

Increase access to timely, culturally appropriate, geographically suitable, and financially viable dental care.

DEFINITION

Access to dental care is a critical and complex phenomenon.²⁴ Improving dental care access means all Minnesotans can establish a dental home (continuous access to non-emergency care), seek regular care, receive comprehensive services, and obtain referrals as needed. Oral disease is linked to systemic disease. Easing financial, geographic, physical, or other barriers to oral health access decrease missed school and work days and avoided inappropriate use of the emergency room for dental emergencies. Access to consistent dental care improves whole-person wellness.



RATIONALE

According to the Surgeon General and Healthy People 2020 reports, oral health is integral to overall health, and access to dental care services is essential for promoting and maintaining good oral health.^{24,25} Several co-occurring external and internal barriers influence people's ability to access dental care. Some of the barriers include the inability to obtain dental insurance/limited dental insurance or funds specifically for dental care due to poverty, low oral health literacy, perceptions and misconceptions about preventive oral health care, complex oral health system to navigate, especially for people with low literacy, lack of interdisciplinary professional collaboration and inadequate dental safety nets. These barriers are further compounded by transportation, childcare, work release, scheduling/appointments, and personal mobility.

Focus Area 2: Access to Oral Health Care



Some Minnesotans are less likely to access oral health services, particularly people of color; low-income populations; refugee and immigrant groups; individuals with low oral health literacy; people with special health care needs; older residents living independently, in nursing homes, and assisted living residences; uninsured and underinsured individuals; and people experiencing housing instability or homelessness. Using [collaborative practice models for dental hygienists](#) ^{25b} and therapists as the primary dental provider for triage and preliminary care helps Minnesota move upstream using cost-effective resources to manage dental disease.

The MDH State Oral Health Program promotes access to oral health care by providing strategies that can strengthen interdisciplinary team-based care, support collaborative practice workforce models, gather data to demonstrate the need for administrative simplification, incorporate healthy literacy for family education, and conduct evaluation to measure successful implementation of strategies.



BEST PRACTICES

- MDH’s “Impact through Innovation” pilot project utilized dental hygienists in collaborative practice to improve access to care in a dental health provider shortage area and where there are barriers due to limited Medicare benefits. This project involved a bi-directional referral of patients with diabetes and gum disease. It enabled MDH to learn lessons about improving access to care, develop tools and techniques to facilitate bi-directional referral models of care.
- Normandale Community College’s [Dental Hygiene in Community Settings: Collaborative dental hygiene practice](#).
- The Network for Public Health Law’s [Access to oral health care in the US remains an issue, but innovative workforce approaches can help](#).
- MDH’s [Minnesota’ Dental Therapist Workforce](#).

Thank you to our partners at Ready, Set, Smile for sharing images of their work in community dental settings.

Focus Area 2: Access to Oral Health Care

STRATEGY ACTIONS FOR FOCUS AREA 2: ACCESS TO ORAL HEALTH

The following actions are recommended for implementing Focus Area 2's strategy: Increase access to timely, culturally appropriate, geographically suitable, and financially viable dental care.

F. Clinical actions for Focus Area 2: Access to Oral Health

1. Increase access.
 - Identify non-traditional clinical settings for dental and health care providers to perform oral health risk assessment, fluoride varnish application, anticipatory guidance, preventive treatment, and referrals.
 - Encourage dental providers to improve the oral health of underserved Minnesotans, especially people with disabilities/special health care needs, or people who live in rural or dental health provider shortage areas.
2. Ease patients' experiences.
 - Increase mobile access to oral health care.
 - Make it easy for patients to use language interpretation services in clinic.
 - Support the coordination of dental and medical health care appointments.
3. Promote early intervention.
 - Provide anticipatory guidance on sealants in WIC.
 - Communicate the importance of children's first dental visit by age 1 to parents and dental providers.
 - Promote oral health risk assessment, fluoride varnish application, counseling, and referrals for oral care at primary care settings.
 - Promote the establishment of a dental home for all Minnesotans to ensure continuity of care.
 - Maintain current evidence about silver diamine fluoride and sealants for primary teeth.

G. Education actions for Focus Area 2: Access to Oral Health

1. Focus education.
 - Collaborate with dental hygienists and dental assistant programs on teaching strategies and activities around dental access issues.
 - Add oral health education component as a requirement to health curriculum taught in public schools.
 - Develop culturally relevant oral health educational materials for general and diverse populations, including people with special health care needs.
 - Continue to educate all dentists, specifically rural and outstate, about the benefits of adding dental therapists and dental hygienists in collaborative practice to their traditional clinics.
 - Leverage existing interdisciplinary continuing dental and medical education about common risk factor approaches, interconnectedness, and treatment.
 - Increase education and certification of all types of dental providers in pediatric and geriatric dental care.



Focus Area 2: Access to Oral Health Care

2. Build capacity.

- Provide training to medical and dental providers, nursing staff, and social services agencies on the relationship between oral health and total health, specifically among pregnant women, children, and older adults.
- Train local public health departments to tailor oral health promotion to the specific needs of each community.

3. Raise awareness.

- Develop mass media public service announcements about the importance of oral health to overall health.
- Inform oral health workforce planning and development activities about the economic impact of dental care at the local level.

H. Finance actions for Focus Area 2: Access to Oral Health

1. Target grants.

- Fund opportunities which improve access to preventive oral health education, school sealant programs, and community water fluoridation for all Minnesotans, especially those at risk for dental disease.

2. Study costs and savings.

- Develop research supporting quantifiable long-term financial and social return-on-investment (ROI) in the delivery of oral health care for the underserved.
- Use existing data sources such as the All-Payer Claims Database (APCD) to determine the impact of the oral health workforce shortage on dental care access.

3. Ease financial burden.

- Redesign the dental education loan repayment system to be clinic-specific so that rural clinics can utilize this opportunity for staff recruitment.
- Support other loan repayment and forgiveness programs.

I. Policy actions for Focus Area 2: Access to Oral Health

1. Remove barriers.

- Eliminate administrative policy barriers on the workforce, including dental therapists and dental hygienists in collaborative practice.
- Support DHS to simplify Medicaid administrative processes and procedures for recipients and providers.
- Align state rules, regulations, and laws to support the virtual dental home.
- Support tele-dentistry in long-term care facilities, head start centers, WIC clinics, correctional facilities, etc.
- Ensure transportation, childcare, and/or work release to make dental care appointments.



Focus Area 2: Access to Oral Health Care

2. Create opportunities.

- Promote inclusion of oral health care in non-traditional settings such as early childhood centers, schools, nursing/assisted living facilities, etc.
- Develop regional dental service hubs through the creation of dental clinics in medical settings. These hubs would employ licensed dental providers and community health workers that provide care in clinics or community settings.
- Engage the Collaborative Practice Dental Hygiene Advisory Committee to expand the utilization of collaborative practice in community settings.

3. Build knowledge.

- Inform policymakers about the importance of including dental benefits in Medicare.
- Use dental insurance claims data to improve dental care access.
- Track services provided by dental therapists and dental hygienist in collaborative practice.

J. Workforce actions for Focus Area 2: Access to Oral Health

1. Create avenues for providers to increase access.

- Support and promote opportunities that encourage diversity in the oral health workforce.
- Expose dental, therapy, and hygiene students to oral health care access, health literacy, and equity issues.
- Develop relationships with providers in older adult services (nursing homes, long-term care facilities, assisted living, etc.) to connect providers with elderly populations.
- Encourage more advanced dental therapists to provide restorative care in rural areas.

2. Train to inform and be effective.

- Partner with relevant stakeholders to develop and disseminate cultural competency educational materials for oral health professionals.
- Train oral health professionals to increase health literacy in communities and patients.
- Publish real-life case studies demonstrating the effectiveness of dental therapists and assistant dental therapists.



FOCUS AREA 3: HEALTH SYSTEMS INTEGRATION



Focus Area 3: Health Systems Integration



VISION:

Minnesotans receive holistic care through integrated medical and dental care systems.

STRATEGY:

Improve integration of medical and dental care systems to provide more holistic care.

DEFINITION

Health systems are the organization of people, institutions, and resources that deliver health care services to meet a given population's health needs. Integrated health systems can include medical and dental clinics, adjunctive health services, clinicians, administrators, and payers. Integrated care refers to the coordinated provision of care to meet a given individual's needs. This focus area intends to promote activities and initiatives within the scope of health care provision, which supports whole-person wellness.

RATIONALE

According to The National Academies of Sciences, Engineering, and Medicine, formerly known as the Institute of Medicine, the current oral health care system is comprised of two components: the private delivery system and the safety net. Unfortunately, there is little integration of either sector with wider health care services. There is growing evidence that interprofessional collaboration results in better care coordination, communication, and ultimately improved patient and health care system outcomes.²⁶

The past decades of research have provided evidence of the association between poor oral health conditions and chronic diseases such as cardiovascular, diabetes, Alzheimer's, and rheumatoid arthritis. Moreover, they also share common risk factors such as poor nutrition, tobacco, and alcohol use. This increased understanding of the interconnectedness has prompted the health care system and oral health care professionals to collaborate in identifying innovative ways to address the common issues for improved patient outcomes. Despite increasing understanding and some ongoing integration work, the two sectors need to create a common voice to address policies responsible for health inequities and increase awareness in policymakers to make resources available for implementing projects aiming for integrated care and professional development.

BEST PRACTICES

- [MDH Models of Collaboration Pilot Project](#), a bi-directional referral of patients with high blood pressure and gum disease pilot was implemented in a federally qualified health center; tools, techniques and metrics are available for use.
- The Network for Public Health Law's [Medical-Dental Integration in Minnesota: Benefits from changes in law and policy](#).
- MDH's "Impact through Innovation" pilot project which utilized dental hygienists in collaborative practice to improve access to care in a dental health provider shortage area and where there are barriers due to limited Medicare benefits. This project involved a bi-directional referral of patients with diabetes and gum disease. It resulted in lessons learned, tools and techniques to improve access to treatment.
- MDH's [Healthy Teeth. Healthy Baby.](#) educational materials and training of trainer modules can be used for integration of oral health into the primary care settings.

Focus Area 3: Health Systems Integration

STRATEGY ACTIONS FOR FOCUS AREA 3: HEALTH SYSTEMS INTEGRATION

The following actions are recommended for implementing Focus Area 3's strategy: Improve integration of medical and dental care systems to provide more holistic care.

K. Clinical actions for Focus Area 3: Health Systems Integration

1. Integrate services and data.
 - Co-locate dental and medical services.
 - Integrate medical and dental records.
2. Connect oral health care to prenatal care.
 - Provide clinical training to dental providers on unique oral health aspects of maternal-child health.
 - Develop and coordinate a statewide oral health screening and education for pregnant women and new parents.
 - Implement mandatory oral health screenings for infants at zero-three-month checkups with primary care/OB-GYN/pediatric visits.
3. Broaden reach.
 - Promote a dental home or provision of follow up care for children who receive preventive care via school oral health programs.
 - Promote tele-dentistry into health care centers, especially in dental health provider shortage areas.
 - Increase preventive dental services offered within primary care.
4. Screen and assess in all health settings.
 - Encourage primary care providers to include oral health questions on health intake/history form, assess oral health risk, ask about the age-one dental visit, and promote fluoride varnish application.
 - Establish oral health as a prenatal health outcome.



L. Education actions for Focus Area 3: Health Systems Integration

1. Build capacity of primary care providers to connect patients with oral health care providers.
 - Train on making oral health referrals and coordinating care.
 - Ensure that local health agencies have available patient education resources/tools on oral health, including the impact of oral health on overall health.
 - Train medical providers to triage with dental providers on urgent dental cases.

Focus Area 3: Health Systems Integration

2. Increase awareness of the connection between oral and overall health.
 - Help policy- and decision-makers understand the connection between oral health and overall health.
 - Provide information to health care providers about the evidence-based oral and systemic links affecting general health.
 - Encourage continuing education centers for medical professionals to incorporate the importance of oral health into overall health into their curriculum.
 - Create a statewide coordinated oral health curriculum for caregivers.
 - Develop and promote consistent messages to educate providers and consumers on oral health and overall health.
3. Incentivize and bolster educational opportunities.
 - Convene continuing education sessions and leadership institute for interprofessional education and collaboration.
 - Provide continuing medical and dental education credits.
 - Encourage externship opportunities for oral health professional students in public health settings (e.g., community health centers, federal qualified health centers, Head Start, WIC).
 - Utilize educational tools and other statewide coordinated oral health modules, paying attention to cultural needs, health and overall literacy, and diversity, for use by any health care worker.
 - Offer opportunities for medical and dental providers to discuss common concerns and opportunities regarding the integration of oral health and systemic health.
 - Expand continuing education opportunities that provide training for all dental professionals on the complex treatment needs of persons with disabilities.
 - Include nutrition education and promotion of overall health as a part of school oral health education requirements.
 - Provide technical assistance for the initiation of sustainable oral health programs in schools.
 - Provide technical assistance to community coalitions as they implement oral health programs in their communities.
4. Use and promote modules, research, and assessments.
 - Promote Smile for Life modules and develop supporting hands-on modules.
 - Utilize modules on health literacy, cultural sensitivity, and diversity.
 - Promote the use of risk assessment (periodontal disease, diabetes, tobacco use, etc.) among medical and dental providers.
 - Promote and support research that examines the impact of preventative oral health care in the primary care setting.
5. Educate parents/caregivers of young children.
 - Inform families about the association of oral health and chronic disease.
 - Include nutrition information and obesity information as part of routine WIC services that are provided to young children and families.



Focus Area 3: Health Systems Integration

M. Finance actions for Focus Area 3: Health Systems Integration

1. Invest and incentivize integration.
 - Allocate state general funds for medical-dental integration and a statewide Fluoride Varnish Registry.
 - Invest in medical-dental integration pilot projects.
 - Provide financial support for programs that provide dental care in primary care settings.
 - Implement a shared savings model to incentivize health systems to improve oral health and overall health.
2. Revise payment structures to facilitate integrate.
 - Incentivize medical-dental integration by revising Centers for Medicare & Medicaid Services payment guidelines to include all dental professionals serving in integrated setting using ICD-10 (International Classification of Diseases, Tenth Revision); convene a group of medical and dental providers to streamline the coding system to ICD-10.
3. Increase understanding of costs and financial needs for integration.
 - Use quality improvement measures to assess the quality of care in the centers or facilities where integrated care is offered.
 - Determine gaps in local oral health systems and programs.
 - Continue researching the cost of overall health care delivery due to poor oral health.

N. Policy actions for Focus Area 3: Health Systems Integration

1. Encourage legislative efforts to integrate oral health into primary care.
 - Promote data collection through APCD (see above) linking chronic disease outcomes codes—such as emergency department or hospitalizations for diabetic crises—and dental codes utilization.
 - Incorporate results into outcome-based payment systems and convince actuaries to include this in insurance product pricing.
 - Review and revise state statutes and rules to promote interprofessional collaboration, health information exchange, care coordination, and positive health outcomes.
 - End regulatory burdens for health systems, allowing advanced dental therapists to be incorporated into medical settings medicine.
 - Collaborate with partners to support and make recommendations on policies that promote oral health and medical-dental integration to the Legislature.
 - Continue to provide the information to the legislature about the necessity of Early Dental Disease Prevention Initiative.

Focus Area 3: Health Systems Integration

2. Connect oral health efforts in education and public health.

- Require all Minnesota schools to have a policy that recommends an oral health exam or assessment to fulfill school entrance requirements.
- Legislatively mandate annual oral health screenings into childhood screenings.
- Include oral health issues and considerations in early childhood education, Minnesota's Child and Teen Checkups and WIC programs, schools, nursing facility/assisted living rules, and regulations for health facilities.
- Implement a continuing medical education requirement for medical providers about oral health and encourage providers to lead improvements in oral health.
- Help local public health agencies identify ways to better serve patients in the community, share data, and collaborate.



O. Workforce actions for Focus Area 3: Health Systems Integration

1. Build integrated teams.

- Support dental hygienists in collaborative practice to serve as a referral hub for community patients.
- Integrate medical and dental into single clinical teams.
- Cross-train medical and dental providers to incorporate key primary care medical and dental assessments and referrals.
- Staff assistant dental therapists and dental therapists and embed collaborative practice dental hygiene in medical clinics.
- Add dental hygienists to prenatal and primary care visits.
- Strengthen inter-professional care coordination, health information exchange and communication, and referrals.
- Work with school districts and community partners to recruit diverse applicants for dental and hygiene schools and other oral health professional programs.
- Enhance primary health care facilities (especially rural) by establishing an oral health component at good checks, sports and school physicals, etc.

2. Train and educate.

- Train community health workers in fluoride varnish application, oral health risk assessment, and educating about oral health.
- Train a wide range of community providers and caregivers in various settings to screen for oral health, provide education and referrals, distribute toothbrushes, and encourage drinking tap water.

FOCUS AREA 4: DISABILITY, SPECIAL CARE NEEDS, AND INCLUSION



Focus Area 4: Disability, Special Care Needs, and Inclusion

VISION:

People with disabilities and special care needs maintain a lifetime of good oral health.

STRATEGY:

Make oral health care accessible, safe, respectful, and timely for all Minnesotans who seek it.



About 61 million Americans (26 percent of the population) have a disability.²⁷



DEFINITION

People with disabilities are often thought of as one population type. Nothing could be further from the truth. Instead, this large segment of the population represents a wide range of abilities and needs. Minnesota's State Oral Health Plan discusses differences in care needs for individuals as a matter of fact, not to discriminate. Health Care providers take a person-centered approach to care delivery. For individuals with complex needs, person-centered care is critical for overall well being and improved outcomes.

People with disabilities are more vulnerable to the impacts of the social determinants of health and the complex U.S. health care system. Because of these and other factors, it is imperative that the Minnesota State Oral Health Plan spotlight the importance of person-centered care delivery.

The International Classification of Functioning, Disability, and Health (ICF) is the World Health Organization (WHO) framework for measuring health and disability at the individual and population levels.²⁸ It is considered the international measurement standard for disability and health. In the U.S., the Centers for Disease Control and Prevention (CDC) uses this tool. The ICF standardizes language for classifying body function, structure, activity, participation levels, and conditions in the world around us that influence health. Here, activity is defined as the execution of a task or action by an individual, and participation as a person's involvement in a life situation.

Focus Area 4: Disability, Special Care Needs, and Inclusion

RATIONALE

The Americans with Disabilities Act (ADA) became law in 1990. The ADA is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public. The purpose of the law is to make sure that people with disabilities have the same rights and opportunities as everyone else.²⁹ By 1995, the Atlanta Legal Aid Society brought a lawsuit to the U.S. District Court for the Northern District of Georgia on behalf of two women. Both women had developmental disabilities and mental health diagnoses and had received services in a state facility. These women did not have access to the same services in the community, which resulted in prolonged institutionalization. The case escalated to the U.S. Supreme Court, who ruled in 1999 in favor of the defendants. *Olmstead v. L.C.*³⁰ is a civil rights victory for Americans with disabilities; the unjustified segregation of people with disabilities is a form of unlawful discrimination under the ADA.³¹

The Disability Rights Movement in the United States is commonly associated with the Civil Rights Movement of the 1960s. Although the federal Civil Rights Act of 1964 did not include people with disabilities, the groundwork had been laid. It took 26 more years, but in 1990, the

ADA was born. The ADA ensures equal treatment and equal access to people with disabilities to employment opportunities and public accommodations. The ADA prohibits discrimination based on disability in employment, services rendered by state and local governments, places of public accommodation, transportation, and telecommunications services. The passage of the ADA is a significant milestone; however, changes in attitudes are not driven by legislation. Thirty years after the passage of the ADA, people with disabilities continue to face discriminatory barriers. This includes discrimination in accessing health care, including dentistry.

In 2011, the US District Court for the State of Minnesota adopted the Jensen Settlement agreement, which is intended to bring “significant improvements to the care and treatment of individuals with developmental and other disabilities in the State of Minnesota.”³² Then-Gov. Mark Dayton issued [Executive Order 13-01](#) in January 2013. The [Minnesota Olmstead Plan](#) was approved by the federal court in 2015. The Minnesota Olmstead Plan is revised annually.

Efforts are underway across the state to create a state that is better for everyone. To realize an inclusive Minnesota, it takes intentional work. Public, private, nonprofit, and other organizations can team up with each other, communities, and individuals.



Focus Area 4: Disability, Special Care Needs, and Inclusion

BEST PRACTICES

- The International Classification of Functioning, Disability, and Health ([ICF](#)) is the World Health Organization (WHO) framework for measuring health and disability at the individual and population levels.²⁸ It is considered the international measurement standard for disability and health. In the U.S., the Centers for Disease Control and Prevention uses this tool. The ICF standardizes language for classifying body function, structure, activity, participation levels, and conditions in the world around us that influence health.
- The American Academy of Pediatric Dentistry's report, [Management of Dental Patients with Special Health Care Needs](#).
- Virginia Department of Health's [Special Health Care Needs Oral Health Program](#).
- Special Olympics' resource, [A Caregivers Guide to Good Oral Health for Special Olympics Athletes](#).
- University of Washington School of Dentistry's [resources for patients and health care professionals on patients with special needs](#).
- National Institute of Dental and Craniofacial Research's [information on development disabilities and oral health](#).
- [Special Care Dentistry Association](#)—an international organization of oral health professionals and other individuals who are dedicated to promoting oral health and well-being for people with special needs.
- Video, [CNA Essential Skills—Mouth Care](#).
- [American Academy of Developmental Medicine & Dentistry](#)—a non-profit membership organization of interdisciplinary health professionals committed to improving the quality of health care for people with intellectual and developmental disabilities.
- [Special Care Advocates in Dentistry](#)—hosts an annual seminar and other events on providing oral health care for people with special needs.

STRATEGY ACTIONS FOR FOCUS AREA 4: DISABILITY, SPECIAL CARE NEEDS, AND INCLUSION

The following actions are recommended for implementing Focus Area 4's strategy: Make oral health care accessible, safe, respectful, and timely for all Minnesotans who seek it.

P. Clinical actions for Focus Area 4: Disability, Special Care Needs, and Inclusion

1. Create an inclusive clinical environment.
 - Ensure person-centered care delivery.
 - Disseminate oral health care guidelines for people with disabilities to medical and oral health professionals.
 - Promote clinics that are accessible for people with disabilities.
2. Offer service delivery options.
 - Encourage practices to engage in more telehealth visits for their patients with special health care needs.

Focus Area 4: Disability, Special Care Needs, and Inclusion

Q. Education actions for Focus Area 4: Disability, Special Care Needs, and Inclusion

1. Teach and train.
 - Promote continuing education programs to dental providers in treating people with disabilities and diverse populations.
 - Promote culturally relevant training for non-dental providers on oral health topics such as daily care, oral-systemic connections, etc., for populations with special health care needs.
 - Create hands-on community-based clinical experiences for treating people with special health care needs and diverse populations.
 - Participate nationally with organizations and partners demonstrating best and promising practices.
2. Promote data use.
 - Promote the use of modified “Special Needs Screening Questions” with school sealant program grantees to identify children with disabilities.
 - Collect, analyze, and make publicly available the following datasets: National Survey of Children’s Health and Behavioral Risk Factor Surveillance System for oral health indicators by people with disabilities and mental illness status.

R. Finance actions for Focus Area 4: Disability, Special Care Needs, and Inclusion

1. Fund efforts that increase capacity for inclusivity.
 - Pilot projects and educational materials to improve the oral health of people with disabilities and special care needs.

S. Policy actions for Focus Area 4: Disability, Special Care Needs, and Inclusion

1. Set expectations.
 - Endorse and support initiatives that promote comprehensive oral health programs for people with disabilities and children with special health care needs.
 - Promote a state mandate for all insurance coverage to be comprehensive for individuals with congenital/lifetime disabilities, including dental benefits.
 - Promote inclusion of oral evaluation in care guidelines for people with special health care needs.
 - Enhance and promote regional public and private collaboration to serve adults with special needs.
 - Engage with members of disability communities.

T. Workforce actions for Focus Area 4: Disability, Special Care Needs, and Inclusion

1. Build capacity and awareness.
 - Develop and promote oral health education and culturally relevant materials for caregivers and providers.
 - Partner with people with disabilities and special needs to train medical providers, direct support professionals, residential leadership, and others involved in others’ care about the relationship of oral health to total health.
 - Train and support dental therapists and collaborative practice dental hygienists to provide services to people with special health care needs in their most accessible setting.

FOCUS AREA 5: DATA



Focus Area 5: Data



VISION:

Oral health infrastructure is data-driven and the diversity of stakeholders are consistently well-informed to address oral health needs.

STRATEGY:

Share oral health data and indicators to inform data-driven strategies and actions.

DEFINITION

Data, measurement, surveillance tracking refers to primary and secondary data collection, analysis, and dissemination through the Minnesota Oral Health Surveillance System (MNOHSS). It also includes oral health and related data available at the county, state, and federal levels.

RATIONALE

Monitoring the status of oral disease in a state's population is essential for setting achievable objectives and planning, implementing, and evaluating public health programs. It is also important to illustrate the burden of oral disease and gain support and funding for the state oral health program.

Data-driven decision-making is a process of formulating key questions, collecting and analyzing data, communicating results to decision-makers, and refining processes, organizations, or systems. It leads organizations to act on evidence than opinions or intuition. Moreover, it encourages organizations to be proactive in transforming data into knowledge and actions instead of passively reporting data for compliance reasons. Becoming data-driven is also a process; the organization begins its journey with a conceptual framework, such as a theory of change, a situation analysis, outcomes chain, or a logic model. Stakeholders then source and/or create and then prioritize performance measures or indicators that align with the conceptual framework. Combined, this foundation informs data to collect, questions to ask, and actions to driven by interpretation.

Data sharing in data-driven decision-making benefits programs as it helps staff and providers understand population needs, inform performance, monitor progress, and improve. It also benefits people accessing services and care by making it easier for individuals and families to navigate complexity and it supports appropriate and coordinated services. Data-sharing agreements between departments and stakeholder groups ensure that information is securely and responsibly exchanged. Data-driven organizations need to build capacity to understand the needs for and use of data and how to collect it in an appropriate and timely manner. Leadership and people "championing" data-driven decision-making are essential to building capacity, as are training, technology, data collection tools, use of secondary data sources, efficiency strategies, and analysis and reporting skills. Collaboration, critical thinking, and communication are also essential for the organization and/or group of stakeholders to be data driven.³³

BEST PRACTICES

- [Minnesota Oral Health Surveillance System \(MNOHSS\)](#)
- [MDH CDC Grant Surveillance Plan](#)
- [CDC Data and Statistics](#)

Focus Area 5: Data

STRATEGY ACTIONS FOR FOCUS AREA 5: DATA

The following actions are recommended for implementing Focus Area 5's strategy: Share oral health data and indicators to inform data-driven strategies and actions.

U. Clinical actions for Focus Area 5: Data

1. Collect, share, use, and maintain data.
 - Utilize Basic Screening Survey of third graders to provide school-linked sealants.
 - Seek opportunities for primary data collection.
 - Clinics share aggregate clinical data on fluoride varnish application and sealant.
 - Promote a statewide Fluoride Varnish Registry with dental and non-dental providers.
 - Dental hygienists file claims for risk-assessment and school sealants programs.
 - Use oral health data to promote fluoride varnish application during well-child visits.

V. Education actions for Focus Area 5: Data

1. Make educational resources relevant and accessible.
 - Publish Minnesota oral health data and surveillance activities in peer-reviewed journals.
 - Present Minnesota oral health data and MNOHSS activities at the national, state, tribal, and local levels.
 - Develop data-driven educational and promotional material for diverse populations, considering their health literacy needs.
 - Plan and prepare scheduled updates of MNOHSS, the Burden of Oral Disease in Minnesota Report, the MDH Chronic Disease Dashboard, MDH Quick Facts, and other data-related communication materials.
2. Model equity.
 - Promote the use of oral health data to address oral health equity issues.
 - Encourage the use of oral health data to develop age and diverse population-specific projects and programs.
 - Update MNOHSS plans: surveillance; data management, evaluation, and communication.
3. Build capacity.
 - Train stakeholders on data security, confidentiality, and quality control measures as well as how to monitor and respond to data requests.
 - Promote the importance of and train on the use of oral health data and MNOHSS.
 - Develop and promote the use of an oral health data measures guidebook.
 - Annually convene the MNOHSS Advisory Group.

W. Finance actions for Focus Area 5: Data

1. Secure funding.
 - Explore opportunities to fund the development (staffing, technology) of a Fluoride Varnish Registry and its continued maintenance.
 - Ensure continuous funding for the enhancement and maintenance of the oral health surveillance system to assess the burden of oral disease.
 - Find funding needed to increase data sharing with and among clinics.
2. Use data.
 - Integrate MNOHSS into existing grants and funding opportunities.

Focus Area 5: Data

X. Policy actions for Focus Area 5: Data

1. Identify and fill gaps in data.
 - Review and synthesize oral health data measures at the national, state, tribal, and local levels to ensure uniform and consistent data collection practices and standards.
 - Ensure oral health data quality and inclusivity of diverse populations.
 - Collect and report on oral health data of diverse populations, spatial data, data that identify health disparities, and data useful for program and policy purposes.
2. Build capacity.
 - Recommend an oral health data needs assessment every four years.
 - Provide technical assistance to partners to develop needs-based measures and assessments.
 - Demonstrate how to make data-driven, evidence-based decisions.
3. Educate.
 - Develop materials using current data to increase awareness in the legislature about the oral health issues.



Y. Workforce actions for Focus Area 5: Data

1. Collaborate.
 - Engage key workforce stakeholders to identify and pursue data collection opportunities, prioritize datasets, promote oral health data findings, and determine MNOHSS quality improvement initiatives.
 - Develop and maintain collaboration and data-sharing agreements with data stewards; specifically, acquire, analyze, and interpret data together.
2. Build capacity.
 - Ensure staffing for the maintenance and expansion of MNOHSS.
3. Collect data.
 - Develop and track oral health surveillance system performance measures.
 - Count and track the number of dental hygienists who have developed a collaborative agreement with a dentist and dental therapist with a collaborative agreement.

ADDITIONAL STRATEGY ACTIONS ARE LISTED IN APPENDIX: FOCUS AREA 5: ADDITIONAL STRATEGIES AND ACTIVITIES (PG 65).

FUTURE DIRECTIONS



Future Directions

MDH officially launched the State Oral Health Plan for 2020–2030 during the Minnesota Oral Health Coalition’s annual conference in 2020. MDH Oral Health Program partners will identify experts in priority areas and collaborate in the development and execution of action steps.

To ensure sustainability and create collective impact, the MDH Oral Health Program will act as the backbone organization and be responsible for the coordination, communications, roundtables, and evaluation of the outcomes of this Plan. It will also maintain communications and strengthen collaboration with current oral health partners, safety net clinics, rural oral health workgroups, care systems, schools, diverse ethnic community centers, and oral health advocates.



This Oral Health Plan is the convergence of years of experience, committed and devoted partners, creativity, fierce determination, an unmistakable call to service, and the pledge to continuous improvement.

The publication of this second State Oral Health Plan signals the path forward. The MDH Oral Health Program has strong partnerships. Leveraging these to add additional experts, policy makers, funders, and other stakeholders is critical for the development and execution of these action steps. To ensure cohesion and collective impact, the MDH Oral Health Program will play the role of backbone organization, responsible for coordination, communications, roundtables, and evaluation of the initiatives and outcomes of this Plan.

An area that was particularly mentioned in the previous evaluation was to have a dedicated group of professionals whom identifies and implement strategies about populations in rural areas as the needs and challenges of those populations are different from the urban populations. Therefore, MDH intends to explore the opportunity of seeking guidance from the Rural Health Advisory Committee’s working group on oral health. This group was formed to assess oral health outcomes and services in rural Minnesota and presented the report [Strengthening the Oral Health System in Rural Minnesota](#). MDH will also reach out to other rural health advocates to discuss avenues for collaboration.

EVALUATION

MDH has more than a decade of oral health project evaluation experience, including the evaluation of the previous Minnesota State Oral Health Plan. A specific evaluation plan for the State Oral Health Plan 2020-2030 is forthcoming. MDH intends to convene an evaluation advisory committee and use a modified version of the [State Plan Index](#) to assess the quality of the Plan.

Through our existing partnerships with local, state, and national organizations such as the CDC and [ASTDD](#), the MDH is well-positioned for Plan’s evaluation.

In the current milieu of a global pandemic, adaptation, creativity, and grace will be key ingredients in project evaluation, notably in how these listed Plan efforts are evaluated.

The MDH Oral Health Program, stakeholders, and communities have worked together to advance the oral health of all Minnesotans.

Remarkable dental public health milestones have been reached. Yet we must strive for more. The ideals expressed in this Plan look at known problems to solve and look ahead to innovation. Creativity, flexibility, and inclusive excellence are necessary ingredients in our path forward. This Plan seeks to unite public health and dental access for all who call Minnesota home. No doubt there are challenges ahead. We are confident we can solve them, together. MDH looks forward to collaborating for collective impact!

How to move forward

The essential inputs for improving oral health in Minnesota are sustained funding, supportive legislative environment, and robust oral health infrastructure and data system. With these in place, a strong coalition of stakeholders is critical to program success.

With the Minnesota State Oral Health Plan for 2020–2030 now in place, stakeholders will:

- Develop work plans to implement the strategies;
- Create a shared measurement system to track success and opportunities for improvement;
- Identify, develop, and coordinate additional partnerships and collaborations;
- Distribute, present on, and discuss the plan to increase awareness of the work ahead; and
- Develop and sustain oral health surveillance system.

Outcomes

Implementing the strategies of the Minnesota State Oral Health Plan for 2020–2030, Minnesota will experience the following changes over time:

SHORT-TERM OUTCOMES

- Stakeholders are more effective in addressing oral health issues.
- Increased leveraging of resources through partnerships, collaboration, and coalitions.
- Providers have increased knowledge and awareness of integrated medical-dental care.
- Dental and medical professionals train together more often.
- The Plan is disseminated to diverse state and national agencies.
- The Plan is shared with policy makers and oral health advocates.
- The Plan is updated based on the public comments
- Roundtables are convened with key stakeholders.
- Dialogue for oral health promotion is fostered.

INTERMEDIATE OUTCOMES

- Policies and standards sufficiently bolster oral health improvement efforts.
- Collaborative practice is more widespread and expected.
- Preventive dental services are used more frequently and evenly across populations, especially in children and under-served populations.
- There is a reduction in emergency room visits for dental reasons.
- Improved collaboration and communication among oral health partners.
- Improved data sharing leading to data-driven decisions.
- Improved awareness of population oral health and preventative dental services.
- Improved landscape for sustainability and expansion of dental public health infrastructure.
- Improved system level changes for medical-dental integration.

LONG-TERM OUTCOMES

- Oral health services are highly accessible and affordable to priority populations (low-income, under-insured and uninsured, and people with disabilities).
- Oral health is improved (reduced tooth decay) equitably across populations.
- Increased proportion of local health departments implementing oral health prevention programs.

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APPENDIX



Medicaid Barriers

Minnesota Health Care Programs (MHCP), including Medical Assistance (or Medicaid), the Children’s Health Insurance Program (CHIP), and Minnesota Care, are programs designed to provide low or no-cost insurance to Minnesotans and can help partially address some of the financial constraints individuals may be experiencing. However, coverage through MHCP does not fully address the access issues in Minnesota. Over half of Minnesota counties are designated Dental Health Professional Shortage Areas (Dental-HPSAs), indicating a lack of accessible dentists in these areas. In addition to an already constrained workforce, many dentists face administrative barriers to accepting MHCP patients, limiting options. These factors may speak to the current underutilization of Medicaid benefits.



“ To improve access, provider reimbursement for Medicaid needs to be like commercial patients. This is the only way the access issue will be improved. The current provider reimbursement structure is promoting discrimination for our state’s most vulnerable populations. — Stakeholder ⁶



During the Federal Fiscal Year (FFY) 2018, only 4 out of 10 Minnesota Child and Teen Checkups (C&TC) Eligible children aged 1 to 20 years (42 percent) had at least one dental service. Only 38% of Children, Age 1-20, enrolled in Medicaid for at least 90 continuous days, received a preventive dental service during this time. Although not directly comparable, 81 percent of children in Minnesota aged 1 to 17 years had at least one dental visit in 2016. This prevalence data comes from a web/mail-based survey ([National Survey of Children’s Health](#)) of parents and guardians.

In 2018, 36% of Minnesota Health Care Program (MHCP) enrollees received at least one dental service. MHCP enrollee dental service use remains relatively unchanged over time (2017 = 32.4%, 2016 = 31.0%, 2015 = 32.4% and 2014 = 33.7%).

In 2020, the COVID-19 pandemic has proved an additional barrier to accessing care. Dental offices in Minnesota were temporarily closed by order of the Governor to limit the spread of COVID-19. Communities facing some of the most considerable barriers to oral health care are the same as those most at risk of complications from COVID-19, including older adults, people of color, people with disabilities, and low-income adults and children. This pandemic has made clear the many disparities in oral health and underscores the importance of equity in improving oral health.

Strategies specific to Minnesota Health Care Programs (MHCP)

[Medicaid](#) provides health coverage to millions of Americans, including low income eligible adults, children, pregnant women, elderly adults, and people with disabilities. Medicaid is administered by states, according to federal requirements. Medicaid is funded jointly by states and the federal government.³⁴

In the 2018 federal fiscal year, Medicaid accounted for about three percent of the federal Gross Domestic Product (GDP). In Minnesota, Medicaid is known as Medical Assistance (or, MA) and the largest health care program in the state. CHIP, the federal [Children's Health Insurance Program](#), is administered in Minnesota congruently with Medicaid. This program is jointly funded by states and the federal government. In Minnesota, the Department of Human Services is the state's Medicaid administrator, and CHIP is administered congruently with MA. Minnesota Care is Minnesota's Basic Health Plan (BHP), which provides low-cost health insurance coverage to working families with income at or above 138 percent federal poverty level (FPL). Together, MA and Minnesota Care are called Minnesota Health Care Programs (MHCP). Eligibility criteria must be met in order to qualify for these benefits. Non-pregnant adult dental benefits are optional for states to provide. This can be interpreted by some to mean "non-essential" health coverage. States who choose to provide this optional benefit have flexibility. In the MN Medicaid program, the non-pregnant adult dental benefit is considered "limited", which is defined as a benefit set inclusive of up to 100 CDT (Current Dental Terminology) codes. Minnesota Statute and Rule delineate which services are included, as well as the methodology for calculating reimbursement rates for those services. Increases to the number of CDT codes covered, or the rate of reimbursement for those services, require action by lawmakers. It is important to note that [Medicare](#) (federal health insurance for older adults and certain other criteria) does not include a traditional dental benefit.

Under the Affordable Care Act, Minnesota became a Medicaid expansion state in 2014, increasing the upper-income limit for Medicaid eligibility to 138 percent of the FPL. The expansion also meant more options for low-income Minnesotans whose income surpasses 138% FPL but is at or below 200% FPL. Minnesota Care fills this coverage gap, as the states' Basic Health Plan (BHP).³⁴ Coverage for Minnesotans enrolled in Minnesota Care, with eligibility income limits of 138–200 percent of the FPL, resulted in a 22 percent increase in MHCP enrollment, but not a parallel increase in MHCP dental providers.

As of 2015, Medicaid insured about 24 percent (about one million) Minnesotans per month. In the same timeframe, about five percent of Minnesotans were uninsured. The rest of Minnesota's population held private insurance. Uninsured rates are higher than the state average in the metro, central Minnesota, and southwestern Minnesota. Disparities also exist for race and ethnicity among people who identify as American Indian, Hispanic, Black, and multiracial, who are more likely to be uninsured than the general population. The uninsured rate of American Indians is more than four times the state average. Strategies specific to MHCP are:



Clinical

1. Connect patients with oral health services.
 - Ensure that children insured by Medicaid and CHIP receive dental care annually and have a dental home.
 - Develop best practices for oral health within facilities and residences, including congregate living, sheltered workshops, long term care, and correctional.

Education

1. Educate dental professionals.
 - Teach the basics of Minnesota’s Medicaid dental benefit, such as how benefits and rates are set, the federal-state cost sharing, and the role of the Minnesota Department of Human Services as the Medicaid administrator.
2. Educate the public.
 - Engage the public and the private dental community to identify and address barriers to participation in publicly funded health programs.

Finance

1. Improve reimbursements.
 - Add dental hygiene screenings and assessments into the benefits set.
 - Advocate for increased provider reimbursement across MHCP.
 - Incorporate reimbursement policies which exist in medicine for dental (e.g., pay for complexity).
 - Promote reimbursement that shares risk and rewards for improved health outcomes, such as value based care.
 - Increase MHCP reimbursement for parental education and services.
 - Participate in national efforts for revisions to CMS payment guidelines.
 - Include oral health into Accountable Care Organization contracts.





Policy

1. Adjust benefits and coverage.
 - Ensure optimal / tailored benefits for adults with disabilities and special care needs.
 - Support comprehensive dental benefit for seniors enrolled in MHCP.
 - Change state statute to add dental sealant placement on deciduous teeth and permanent premolars for children at high risk of oral disease.
 - Align the MHCP dental benefit with evidence-based dentistry, standard clinical practice, and incentivize preventive care.
 - Change MHCP policy so that benefits include screenings and assessments.
 - Encourage MHCP to reimburse for fluoride varnish application for non-pregnant adults with the same policy as for children and pregnant women.
2. Increase eligibility.
 - Ensure adequate funding and encourage eligibility of seniors to have access to oral health insurance coverage.
3. Make it easier.
 - Utilize and enforce the DHS purchasing power to leverage providers (rule 101).
 - Promote dentists using ICD-10 codes, including the ability to [bill for time](#) for complex patients and/or procedures.
 - Simplify the application, enrollment and claim submission processes for dentists, dental therapists, and dental hygienists to reduce administrative barriers to Medicaid participation.

Workforce

1. Increase program participation.
 - Work with oral health professionals to create feasible solutions for increased program participation by all oral health providers across Minnesota.
 - Develop an accountability system that makes provider participation public.

Minnesota Oral Health Action Plan (2020-2030)

Focus Area 5: Additional Strategies and Activities

Goal: Increase the use of oral health data and the Minnesota Oral Health Statistics System (MNOHSS) to inform activities, programs and policies.

Strategy 1. Strengthen the Minnesota Oral Health Statistics System (MNOHSS).

- Activity 1.1. Integrate MNOHSS into existing grants and funding opportunities.
- Activity 1.2. Promote the importance of oral health data and MNOHSS with key stakeholders.
- Activity 1.3. Develop and maintain data sharing agreements with data stewards.
- Activity 1.4. Acquire, analyze data and interpret the results in collaboration with data stewards and other stakeholders.
- Activity 1.4. Ensure staffing for the maintenance and expansion of MNOHSS.
- Activity 1.5. Monitor and respond to data requests.
- Activity 1.6. Maintain and implement updates to the MNOHSS Surveillance Plan, the MNOHSS Data Management Plan, the MNOHSS Evaluation Plan and the MNOHSS Communication Plan.

Strategy 2. Collaborate with key stakeholders to identify and pursue data collection opportunities, prioritize datasets, promote oral health data findings and determine MNOHSS quality improvement initiatives.

- Activity 2.1. Conduct an oral health data needs assessment every four years.
- Activity 2.2. Develop and maintain collaborations with data stewards.
- Activity 2.3. Seek opportunities for primary data collection.
- Activity 2.4. Develop and track oral health surveillance system performance measures.
- Activity 2.4. Convene the Minnesota Oral Health Statistics System Advisory Group annually.

Strategy 3. Ensure oral health data quality and inclusivity of diverse*populations.

- Activity 3.1. Seek opportunities to collect and report on oral health data of diverse* populations, spatial data, data that identifies health disparities and data useful for program and policy purposes.
- Activity 3.2. Uphold data security, confidentiality and quality control measures.

Strategy 4. Establish an MDH fluoride varnish registry.

- Activity 4.1. Seek and apply to funding opportunities to establish and staff a fluoride varnish registry.

MINNESOTA ORAL HEALTH ACTION PLAN

- Activity 4.2. Develop platform elements of the fluoride varnish registry.
- Activity 4.3. Build an online fluoride varnish registry.
- Activity 4.4. Promote fluoride varnish registry with dental and non-dental providers.
- Activity 4.5. Maintain fluoride varnish registry.

Strategy 5.0. Develop standardized methods to collect local-level oral health data.

- Activity 5.1. Review oral health data measures collected at a local-level (e.g. community health assessments).
- Activity 5.2. Review of oral health data measures collected at the national, state and tribal levels.
- Activity 5.3. Synthesize oral health data measures at the national, state, tribal and local levels to ensure uniform and consistent data collection.
- Activity 5.2. Develop an Oral Health Data Measures Guidance document.
- Activity 5.3. Promote Oral Health Data Measures Guidance document with partners.
- Activity 5.4. Provide technical assistance to partners to develop needs-based measures and assessments.

Strategy 6. Disseminate oral health data to key stakeholders.

- Activity 6.1. Plan and prepare scheduled updates of the Minnesota Oral Health Statistics System (on the MN Data Access Portal), the Burden of Oral Disease in Minnesota Report, the MDH Chronic Disease Dashboard, MDH Quick Facts and other data-related communication materials.
- Activity 6.2. Provide stakeholder training opportunities on use of the Minnesota Oral Health Statistics System.
- Activity 6.3. Seek opportunities to publish Minnesota oral health data and surveillance activities in peer-reviewed journals.
- Activity 6.4. Seek opportunities to present Minnesota oral health data and MNOHSS activities at the national, state, tribal and local levels.

*Diverse in this document refers to any individual, family, caregiver or community that self identifies or represents the following population groups: children (aged 0-17), pregnant or expectant mothers, young adults (aged 18-25), older adults (aged 65+ years), the homeless, rural residents, low-income, uninsured or underinsured, people of color and American members of Lesbian, Gay, Bisexual or Transgender communities immigrants and refugees, people with Limited English Proficiency (LEP), people with disabilities, mental illness, chronic disease and other special health care needs. Please note that this is not an exhaustive list of diverse population groups and we acknowledge all forms of identity and lived experience.

Emerging findings from community input on Minnesota oral health strategic planning (full summary)

The Minnesota Department of Health (MDH) surveyed its stakeholders in 2019 to refine priority areas and goals for improving oral health throughout the state. The following are results from 214 respondents.

Access to dental care is the top-cited topic of importance to stakeholders. Survey respondents first indicated which topics were important to them and could select more than one. Two hundred (93%) of the 214 respondents selected “access to dental care.”

Topic	Percentage and numbers of survey respondents who selected the topic as important
Access to dental care	93% (n=200)
Integrating medical care and dental care	68% (n=146)
Sustaining and expanding existing dental public health	56% (n=120)
Commitment to diversity and inclusion, including disability rights and oral health for people with special health care needs	44% (n=95)
Tracking and surveillance of oral health trends and data in Minnesota	39% (n=83)

The survey then asked two open-ended questions, “**Why are these topics important to you or the state of Minnesota?**” and “**What are some of the oral health challenges or barriers you would like to see addressed in a state oral health plan?**” The findings from stakeholder responses are as follows. However, because of the similarity and open-ended nature of the survey questions, many of the responses to one question answered both; they spoke to the complexity of the problem and barriers to addressing it, and the urgency of improving oral health. Also, some responses lacked specificity or clarity to be clearly grouped into whether something is important or is a barrier or a challenge. Therefore, interpretation of these findings is important as it will help to better clarify the focus for the upcoming strategic plan.

Nonetheless, several themes from the stakeholder responses emerged to inform improvement to oral and dental health in Minnesota. In summary, the lack of access to dental care is rooted in structural inequities. Impeding a healthy Minnesota is the low reimbursement rate to oral care providers who treat people on Minnesota’s dental coverage plans, thus creating a disincentive to taking patients on the State’s Plan. Additionally, stakeholders are concerned about the “siloeing” or lack of aligning dental and medical care, both in terms of health care as practiced and health insurance coverage. Stakeholders see a need for increasing understanding and awareness about the importance of oral health and oral health practices, especially preventative care. These findings described further in the following pages, presented in order of the highest frequency in the dataset, and illustrated by selected stakeholder responses from the survey.

LOW ACCESS TO DENTAL CARE IS THE RESULT OF A SYSTEMIC INEQUITY AND HAS PERVASIVE IMPACTS.

The lack of access to dental care is rooted in systemic inequities that discriminate populations who are on Minnesota's dental coverage plans. Stakeholders are concerned that oral health issues will persist, especially among marginalized populations, if the problem is not addressed. Costs and limited coverage, even for people with insurance, are prohibitive to accessing appropriate care and lead to people forgoing the care they need.

As one stakeholder stated,

“Access to dental care has become a privilege of higher income groups. It is expensive if you don't have good dental insurance. If you have state insurance, the benefits are terrible, and most clinics will not take you because they don't get paid enough.”

And another stakeholder commented,

“We continue to have significant disparities in quality oral health care in those with complex health needs and disabilities due to access barriers including low reimbursement and an inadequately trained dental workforce to care for these individuals who are rapidly growing in numbers.”

As for impacts, one stakeholder wrote,

“We see people in our emergency room with dental problems because there isn't a dentist available on weekends or because they can't get an appointment on a short notice. This is inappropriate use of emergency room visits and medical dollars.”

And another stated,

“Patients who are not seen regularly have higher rates of periodontal disease, caries, and fractured or broken teeth. This translates to poorer overall health.”

Many stakeholders commented on the cost-prohibitive access to care, such as,

“People are not getting the oral care they qualify for and are delaying treatments based on costs.”

And

“Working with individuals with limited income on medical assistance it has been very difficult to get them the oral health care they need, and when they get into a dentist it ends up costing them a lot of money that they don't have to get things fixed, all because it took too long for them to get into a dental clinic .”

REIMBURSEMENT RATES ARE LOW, DISINCENTIVIZING ORAL CARE PROVIDERS TO TREAT PEOPLE ON MINNESOTA’S DENTAL COVERAGE PLANS.

The low reimbursement rate, a key part of the inequitable system, disincentivizes oral care providers from treating people on Minnesota’s dental coverage plans. Providers limit the number of or refuse patients on these plans altogether.

A stakeholder commented,

“We have worked hard over the past several years. We bring it so far, then run into some form of a barrier. Most often, it is local dentists who deny people care, or waiting lists for those who do accept [Medical Assistance (MA)]. We must continue to look at different models.”

And another wrote,

“To improve access, provider reimbursement for Medicaid needs to be similar to commercial patients. This is the only way the access issue will be improved. The current provider reimbursement structure is promoting discrimination for our state’s most vulnerable populations.”

Referring to the relationship between private and public plans, one stakeholder wrote,

“Access needs to be improved, reimbursement for dental needs to be evaluated, more services need to be covered by [Department of Human Service (DHS)]. As the [Managed Care Organizations (MCO)] follow the DHS fee schedule, it all starts with the State.”

This systemic issue is more pronounced in rural areas and further compounded by a shortage of dentists in greater Minnesota. Should they find a provider—and one that see patients on Minnesota’s dental coverage plans—patients in rural areas often travel up to three hours to receive care. The hardship in finding a local provider means that patients must coordinate and pay for travel if they do not have their own transportation, and need take significant time off from work or other commitments to receive dental care.

“

I work in public health where I see multiple children with dental decay who have no access to dental care within driving distance. These are people who do not have their own cars, extra money or ability to take time off from work to travel up to 70 miles to see a pediatric dentist who will see children of all ages.



SEPARATION OR LACK OF ALIGNMENT OF DENTAL CARE AND MEDICAL CARE IMPEDES OVERALL HEALTH, ESPECIALLY AMONG VULNERABLE POPULATIONS.

Stakeholders frequently mentioned that the “siloeing” of dental and other medical care and its insurance coverage is a problem and that unmet needs in dental care exacerbate other health care needs, lowers quality of life, and increased costs. Better alignment of both medical and oral care, as well as insurance coverage for both, would not only improve health care and its outcomes, but reduce costs over time.

As one stakeholder stated,

“Research is showing that there are more and more systemic issues and illnesses that have a direct link to oral health conditions.”

Another generalized,

“Dental health IS part of medical health, as is vision, hearing and mental health.”

One stakeholder comment:

“ Oral health can impact a patient’s quality of life, how they manage daily necessities. Not having access to dental care, for ANY reason, not only negatively impacts the patient, but those around them in a myriad of ways.

Illustrating the disconnect between oral and overall health, a stakeholder observed,

“Dental health is often not prioritized, especially for populations who already experience health disparities and inequities. I work with individuals with serious mental illness, which is a population that is especially underserved and ignored regarding oral health.”

This siloeing and the resulting lack of dental care is believed to negatively impact children and other vulnerable populations, especially people from low-income backgrounds. If there is a lack of dental care access, children’s preventative habits and dental health are impeded, which leads to cascading negative effects on their dental and overall health over time. Additionally, preventative habits and access to early and ongoing dental care saves money in the long run.

A stakeholder observed,

“I work with individuals who are of low-income and see how desperate some of them are to get dental work and a general cleaning done but can’t find a provider in their community to complete the work.”

And another wrote,

“As a safety net pediatric clinic, we frequently see the devastating effects of inadequate oral health resources and access among our patients, especially low-income children and children of color.”

Likewise, a stakeholder commented,

“People with special needs tend to not have the best insurance therefore there are not many options for them. They can also have a hard time at the dentist and may need to have more options available to them than the general public.”

DENTAL CARE IS NOT AS VALUED AS IT SHOULD BE.

Dental care outcomes are also affected by a lack of awareness, understanding, and valuing of the dental care and how it interrelates with overall health. Stakeholder cited the need to raise awareness and understanding about the importance of oral health and oral health practices, especially preventative care.

As one stakeholder wrote,

“Education is huge. A large portion of the population does not see the importance of routine preventive dental services, creating the need for immediate dental visits as well as [emergency department] visits for dental.”

Another commented,

“We get so focused on access to care (which is VERY important), but I see a lack of VALUE in many patients that have access to care and do not utilize it. This is very frustrating for those of us in health care.”

One stakeholder described the benefit of greater understanding, stating,

“If people understand that dental care is part of medical care, parents may be more compliant with seeking care for their children and long-term care facilities may have better plans for dental care.”

OPEN-ENDED RESPONSES

There were 71 responses to the final, open-ended question on the survey. While these responses varied, half were recommendations and a small group of responses showed appreciation for being invited to share input on the state plan. For example, one stakeholder wrote,

“Thank you for conducting this survey. It is much needed and there are so many wonderful things that are done that just need streamlining and support. So, thank you!”

Recommendations included ways to improve services, adopting or adapting models, and encouraging partnering/collaboration, as well as increasing data and information sharing.

Specific recommendations related the emerging findings discussed in this report included:

“Using dental navigators or community health workers to help patients access services is a model that works and needs more research.”

“Build further capacity within safety net settings, reimbursing things like community health workers, care coordination, transportation assistance, and such.”

“I would like to see more traveling dental clinics for our area-there is no one covering us. I would like to suggest we take dentists that are in school, when they have their practicum, to travel to the rural areas, gain some information/training for the field and assist the dental world for the rural people.”

“MDH should help convince funders to better support not just service delivery projects, but development, implementation, and evaluation of new and better care models.”

Healthy Teeth. Healthy Baby.

Minnesota's Legislative Commitment to Prevent Early Dental Disease

Prasida Khanal, MPH, BDS; Don Bishop, Ph.D.; Erin McHenry, B.A.

Background

- Early childhood caries (ECC) is the most common chronic childhood disease.^{1,2}
- Many children in Minnesota do not receive preventive dental care, which disproportionately affects immigrants, people of color and low-income families.
 - In 2016, less than 30% of Minnesota children aged 0-5 years enrolled in Medicaid for 90-continuous days received their recommended annual dental visit.³
 - Minnesota ranked 5th among states with the lowest percentage of children under age 6 receiving at least one dental service in 2016.³

Purpose

The State of Minnesota enacted legislation in 2015 creating the Early Dental Disease Prevention Initiative (EDDPI), led by the Minnesota Department of Health. The legislation's purpose is:

“To increase awareness among communities of color and recent immigrants on the importance of early preventive dental intervention for infants and toddlers before and after primary teeth appear.”

- EDDPI is geared toward communities of color, ethnic cohorts, recent immigrants and Minnesotans with limited English proficiency and health literacy.
- Focuses on preventing dental disease in underserved children up to three years of age.
- Stresses the notion that early dental disease starts prenatally and is most effective in first three years of life.
- Uses a dynamic combination of community-based social marketing principles to educate the target population and empower them to improve the oral health of infants and toddlers.

EDDPI also institutionalizes the core values of the American Academy of Pediatrics and the American Academy of Pediatric Dentistry to promote early dental intervention.

- EDDPI is solely funded through the State of Minnesota.

Methods

- MDH collaborated with health professionals and community partners of the targeted communities to:
- Educate new/expecting parents and caregivers about the connection between parent/baby oral health and motivate preventive behavior change, especially in high-risk and underserved populations.
 - Gather information about programming preferences through focus group discussions with families of different ethnic backgrounds including African American, Caucasian, Hispanic, Hmong, Karen and mixed races.
 - Develop a “prenatal to three” model and fund 15 pilot projects to test the efficacy of different preventive interventions and incentives aimed at encouraging proper cleaning techniques and early dental care.
 - Provide technical assistance, communications materials, resources and general support to 15 grantees from July-December 2017.

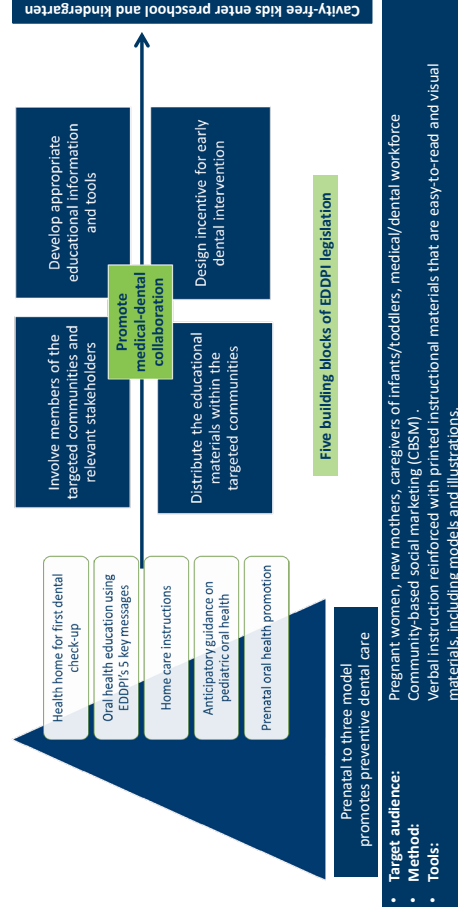
Outcomes

- Improved oral health**
- The onset and progression of ECC was prevented or delayed through educational and restorative intervention.
 - The peak burden of ECC on healthcare infrastructure was lowered.
 - The overall cases and impact of ECC was diminished through a combination of targeted health promotion and grassroots efforts.
- Expanded collaboration and partnership**
- EDDPI was integrated into the MDH Maternal and Child Health Program.
 - More than fifty new partnerships were developed and 15 county hubs for oral health promotion were established.
 - Approximately 200 nursing students were trained to provide fluoride-varnish application and oral health education.
- Increased awareness and capacity in public health**
- Approximately 10,000 prenatal to three population and caregivers received intervention.
 - More than 50 outreach events were conducted.
 - Culturally-competent communications, marketing and educational materials were developed and distributed by MDH and partners, including 15,000 oral hygiene kits.

Discussion

- Prevention is best accomplished by timely identification of risk factors and appropriate intervention.
- Early dental disease can impact the total well-being of a child and is largely preventable; thus, a healthy mouth with a full dentition should be the goal for each and every child.
- Professionals, both dental and non-dental, need to begin to understand the importance of achieving and maintaining good oral health as an integral part of total health in order to address the emerging oral health crisis.
- To prepare for these changes, dentists and the providers with whom they collaborate will need to know how to best serve their multi-ethnic patients using low literacy educational tools and practice applying their knowledge in the community.
- Through early detection, proper counselling and the involvement of health professionals and caregivers, the consequences of ECC can be minimized and hopefully, in the future, completely eliminated.

Prenatal to Three Model



- **Target audience:** Pregnant women, new mothers, caregivers of infants/toddlers, medical/dental workforce
- **Method:** Community-based social marketing (CBSM).
- **Tools:** Verbal instruction reinforced with printed instructional materials that are easy-to-read and visual materials, including models and illustrations.

Accomplishment:

- Minnesota Department of Health has established a statewide coordinated approach to prevent early dental disease.

Limitations:

- Lack of: 1. baseline data for prenatal to three population, 2. adequate funding to distribute free oral hygiene kits and educational materials, 3. resources to upscale the pilot projects, 4. capacity to address the social determinants of early dental disease.

Funding

- EDDPI is solely funded through the State of Minnesota.

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Educational Tools



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Healthy Teeth. Healthy Baby.

SUCCESS OF MINNESOTA'S LEGISLATIVE COMMITMENT TO PREVENT EARLY DENTAL DISEASE.

Early childhood caries (ECC) is the most common chronic childhood disease. Many children in Minnesota do not receive preventive dental care, which disproportionately affects immigrants, people of color and low-income families. Minnesota is one of five states with the lowest percentage of children under age six receiving at least one dental service. To address this, the State of Minnesota enacted legislation in 2015 to form the Early Dental Disease Prevention Initiative (EDDPI). It aims to increase awareness among communities of color and recent immigrants on the importance of early preventative dental intervention for infants and toddlers.



Continuing investment in Healthy Teeth. Healthy Baby. drives prevention in communities.

Since directed by the legislature, MDH, health professionals, and community partners:

- Coordinated statewide with more than fifty partners and 15 county hubs to prevent early dental disease.
- Tailored the evidence-based model and reached communities at cultural gatherings, places of worship, rural areas, and public spaces such as libraries.
- Funded 25 \$5,000 grants.
- Created easy-to-read and picture-based materials for low-literacy populations.
- Designed information to “stick,” such as soaking crackers in acid for audiences to see the acidic effect in action.
- Distributed 20,000 oral hygiene kits at 50 outreach events, including baby showers, meals, and cultural activities.
- Trained community health workers, nursing students, Head Start staff to promote prevention.

EDDPI improved oral health by preventing or delaying cases of ECC and lowered burden on healthcare infrastructure. But there is more work to be done.

EDDPI needs:

- capacity to better integrate the social determinants of early dental disease;
- data to better target intervention;
- resources to scale up promising practices pilots; and
- funding to distribute free oral hygiene kits and educational materials.

Supporting the EDDPI's prenatal to three model will lead to cavity-free kids entering preschool and kindergarten.

Healthy Aging Includes a Healthy Mouth: Minnesota's First Basic Screening Survey for Older Adults

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Objective

- Assess and report on the oral health status of adults aged 65 and older living in Minnesota nursing homes using the Association of State and Territorial Dental Directors (ASTDD) approved Basic Screening Survey (BSS), and establish baseline data for Minnesota.
- Contribute data to the National Oral Health Statistics System for state-by-state and national comparisons.

Background

Minnesota (MN) adults overall have good oral health:

- Adult annual dental visit: MN (74%) versus U.S. (66%).¹
- Adult partial tooth loss: MN (35%) versus U.S. (43%).¹
- Adult complete tooth loss: MN (10%) versus U.S. (14%).¹
- Prevalence of dental sealants among third graders in public schools: MN (60%) versus U.S. (44%).²

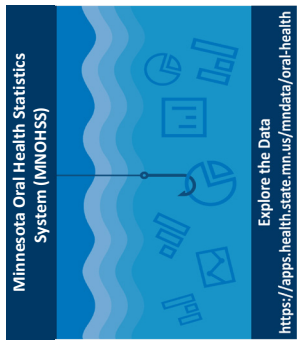
However, oral health disparities by geography, race/ethnicity and income persist:

- In 2016, only 31% of Medicaid enrolled Minnesotans saw a dentist.³
- Older adults have an increased risk of aging and prescription medication related dry mouth, coronal and root caries and periodontal disease.
- A higher proportion of older adults have chronic disease (e.g. cancer, heart disease, diabetes), arthritis and limited mobility, making oral hygiene and travel for routine dental care challenging.
- Around 2020, Minnesota's 65+ population is expected to eclipse the K-12 children population for the first time in history.⁴
- The Minnesota Demographer's Office projects a doubling of older adults with more than 1 in 5 Minnesotans reaching age 65+ by 2030.⁵ Older adults are, therefore, a growing patient demographic for dental practices.
- Special dental public health focus on "healthy aging, includes a healthy mouth" is necessary to ensure the oral health needs of the growing aging population are met, including increased quality of life and independent living.

Methods

- In 2016, the Minnesota Department of Health (MDH) Oral Health Program carried out the state's first BSS for Older Adults – an ASTDD open mouth screening tool to assess the oral health of adults aged 65+ in long-term care facilities or congregate meal sites. MN's sampling frame was licensed Medicaid/Medicare eligible nursing homes.
- MDH received IRB Approval, voluntary participation of nursing facilities and patient and/or guardian consent.
- ASTDD implicit stratified sampling methodology was applied to a list of 373 skilled nursing facilities using Area Agency on Aging (AAA) and Rural Urban Commuting Areas (designated as rural or urban area based on RUCRA-zipcode) as stratifying variables.
- Licensed dental hygienists trained and calibrated in the use of the BSS instrument screened 1,032 adults aged 65+ in 31 skilled nursing facilities with 30 or more beds resulting in 944 analyzable surveys.
- Data recorders steeped in EpiInfo™ recorded data electronically with validation protocols to prevent data entry errors.
- MDH collected all ASTDD recommended and optional oral health indicators. The facility provided participant demographic data at time of screening and were de-identified prior to leaving the facility.
- Data were weighted to account for the proportion of nursing home beds and residents screened within AAA and RUCRA.

The Oral Health Status of Adults Aged 65 and Older Living in Minnesota Nursing Homes



Discussion

- Data shows older adults in MN nursing homes are in great need of dental care.
- Tooth loss is more than double that of the general population (25% MN nursing homes, versus 10% general population).
- Almost one quarter of adults in the state report not seeing a dentist within the past year, and only 30% of Medicaid patients had a dental encounter in the past year.
- These data coupled with a growing aging population demonstrates the need for investment in dental disease prevention across the lifespan, particularly for those in rural areas, limited incomes, chronic disease and disability.
- Part of this investment should include increased:
 - Oral hygiene education for older adults, caregivers and health care providers.
 - Communication between health care providers and dental professionals, including patient referrals and follow-up.
 - Use of collaborative practice dental hygienists and dental therapists in long-term care facilities and other community settings.
- States must strengthen Medicaid policy to include oral health services for older adults and invest in building community capacity to address the social determinants of oral health that impact the availability and utilization of dental services.

Strengths & Limitations

- First statewide assessment of the oral health status of older adults in nursing homes.
- MDH collected all ASTDD approved recommended and optional oral health indicators.
- ASTDD implicit stratification methodology increases precision estimates and reduces selection bias.
- Results are accessible on the public-facing, online MN Data Access Portal and included in Minnesota's oral health surveillance system – Minnesota Oral Health Statistics System (MNOHSS).
- Screening room configuration, screener-help lighting source and variability in residents' physical ability to open the mouth limited the dental hygienists ability for consistent assessment.
- Cross-sectional (prevalence) survey design cannot determine causal associations.
- Any correlation between guardian or participant consent and outcome measures may result in bias.
- Findings cannot be generalized to older adults in Minnesota who do not live in nursing homes.
- Survey did not assess resident insurance status or access to dental care.
- Low proportion of Asian, African American, American Indian, Hispanic, Somali, Hmong, Karen etc. residents in the sample does not allow for analysis on race and ethnicity.
- The definitions of indicators established in the BSS manual enable systematic and comparable data to be collected, but also make it hard to compare to data collected with different survey tools.

Funding

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- Data Recorders: Cameron Dutt, Jacob Jordan, Kallie Delveaux and Michelle Adelmann.
- BSS for Older Adults Stakeholder Group
- Participating nursing home residents, administration and staff

References: 1. Centers for Disease Control and Prevention. BRSS Prevalence & Trends Data. <http://www.cdc.gov/brss/brssprevalence/index.html>. Retrieved September 13, 2017. 2. Minnesota Department of Health Oral Health Program (2015). Third Grade Basic Screening Survey. Collected by the Minnesota Oral Health Data Access Portal. <https://apps.health.state.mn.us/mndata/dental-sealants>. Retrieved March, 2018. 3. Minnesota Department of Human Services. Minnesota Health Care Programs Dental Services: Recipients by County of Residence, Program, Category and Age. 2016. 4. Minnesota State Demographic Center. <https://mn.gov/admn/demography/data-by-topic/aging>.

Background

For years, various organizations have provided school sealant programs in areas of Minnesota. These programs operate independently of one another and outside the scope of the Minnesota Department of Health (MDH) Oral Health Program (OHP). Wide-scale collaboration and relationship building are uncommon elements of Minnesota school sealant initiatives. For this reason, the number of school sealant program providers in the state, total number and location of schools and students served, and services rendered remains unknown.

- Successful collaboration between MDH and community partners has empowered and inspired MDH to provide leadership to school sealant programs across the state of Minnesota.
- MDH is building a collaborative partnership guided by principles of community-based participatory research (CBPR)¹ which involves dimensions such as:



Goals

- Develop a collaborative state-wide, coordinated school sealant program (SSP) known as “SEAL Minnesota.”
- Develop trust among community partners by employing multilevel strategies.
- Build infrastructure and capacity of schools, parents and communities to ensure long-term sustainability of school sealant programs.

Methods

MDH recognized need for a paradigm shift in dental public health planning to address the issues of resources, capacity, geographic barriers, and complexities of working in Dental Health Professional Shortage Areas.

- MDH developed multilevel strategies to 1) advance a school’s capacity to implement a sealant program, 2) address content-specific cultural issues, 3) foster collegiality, 4) reduce a school’s isolation from dental communities, and 5) lead schools to greater understanding of the educational components of a school sealant program.
- MDH funded four new partnerships to help develop:
 - A SSP ‘school-readiness’ tool kit.
 - A sealant data reporting agreement with an existing SSP provider who serves a geographic area of interest to MDH.
 - School sealant program education models in collaboration with Community Health Worker (CHW) program leaders.

Preliminary Outcomes

- Reviewed literature to gain understanding of models of collaboration and relationship building.
- Identified opportunities to form new community partnerships.
- Strengthened existing relationships to support “SEAL Minnesota.”
- Developed innovative tactics to support sealant programming across the state, including technical assistance around calibration, infection control, school readiness toolkits, data sharing, communications tools, and educational support materials.
- Identified increasing need for access to preventive and restorative services.

Limitations

- The value of collaboration and relationship building is often overlooked.
- Funding opportunities most often target providers/provision of clinical care; there is less focus on empowering schools, parents and communities.
- A collaborative practice agreement is required for dental hygienists working in school (community) settings
- Uncertainty of continued grant funding to cover program costs affects development of new initiatives.
- MN Medicaid pays for sealants on permanent molars; reimbursement rates are low to providers. Commercial plans vary in their reimbursement strategy.
- Administrative budgeting to support data sharing is often necessary.

Discussion

- To be sustainable, programs need strong relationships among partners and institutions. Partnerships must also be configured to include diverse community representatives who will develop a vision for long-term change.
- Incremental relationship building between the MDH OHP and its partners shows progress toward a state-wide coordinated school sealant program. The strong relationships formed underpin collaborative efforts and demonstrate movement of each program toward success.
- There is more to collaboration and relationship building than just quantitative data.
- The rich collaborations that have ensued through this fully engaged MDH-community partnerships can facilitate action and policy change where needed.

References

¹ Detroit Community-Academic Urban Research Center; University of Michigan School of Public Health <http://www.detroiturc.org/about-cbpr.html>

Funding

Centers for Disease Control and Prevention, State Oral Disease Prevention Program: DP13-1307; Delta Dental of Minnesota Foundation; Health Resources and Services Administration, Grants to States to Support Oral Health Workforce Activities: T1ZHP30311

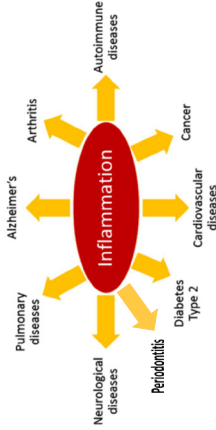
Contact

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Background

This two year project fostered intradepartmental collaboration between the Oral Health and Cardiovascular Health units, both located within the Minnesota Department of Health's Division of Health Promotion and Chronic Disease, Center for Health Promotion. An Advisory Panel was formed, meeting quarterly. Two pilot projects were launched, demonstrating the clinical application of bi-directional referral between dentistry and medicine.

Project Description



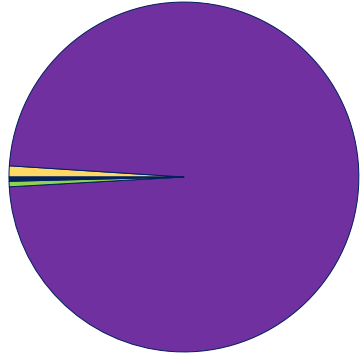
MDH intentionally identified two different care delivery models for this project: a private group dental practice, and a multi-specialty FQHC. A blood pressure-periodontal disease metric was developed and approved by the Advisory Panel. The metric pairs blood pressure readings and periodontal self-assessment results. In our project, the dental clinics obtained and recorded blood pressure readings for adult patients. If blood pressure was high, patients were educated on the health risks. A medical referral was made for blood pressure follow up. If the blood pressure was critically high, the dental appointment was stopped and the patient was referred to their medical provider or a collaborating medical provider for same-day triage and treatment.

Our participating medical clinics asked adults with known hypertension to complete the periodontal self-assessment (Eke and Genco 2007), facilitated by a licensed dental assistant (LDA). If the self-assessment showed dental health concerns, the hypertensive patient was referred to a dentist. We acknowledge that the periodontal self-assessment tool is designed to be administered by non-dental personnel. A constraint of this project was the need to use dental assistants instead of medical providers to administer this self-assessment.

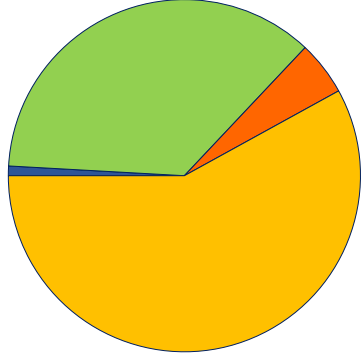
It is noted here that the American College of Cardiology / American Heart Association released new blood pressure guidelines in November 2017. As the new clinical standard, the pilot project metric was updated and approved by the Advisory Panel, and each pilot site trained their staff and implemented the updated metric.

This project was wholly funded through the CDC-16-1602 Models of Collaboration cooperative agreement. The Minnesota Department of Health Cardiovascular Health and Oral Health Programs staff worked jointly.
MDH Staff: Jim Blumny, Megan Clare Craig-Kuim, Claudia Fercello, Laura Hutton, Bliquis Jiwanti Khan, Erin McHenry, Stan Shanelling, Patty Takawira, Merry Jo Thoele
West Side Community Health Services: April Arnold, Lois Berndt, Paige Bowen, Silvia Diaz, Lynn Janssen
Dental St. Louis Park: Dick Dieckts, Jean Lind, Jeff Remakle, Kumaris Sooldao
Advisory Panel: Jeff Forslund, Gary Hanovich, Shirlynn LaChapelle, Nancy Franke Wilson (Chair).

Medical Clinic



Dental Clinic



Discussion

Successes

- Improved communication and workflow between the Oral Health and Cardiovascular Health Programs at MDH
- MN Cardiovascular Health Alliance members actively participated on the Models Advisory Panel
- The Executive Director of the MN Oral Health Coalition, Nancy Franke Wilson, served as the Advisory Panel Chair
- Concluding "Medical Dental Integration Symposium" held with the collaboration of partners
- Members of the pilot sites and the Advisory Panel presented or participated in the symposium
- Our partners are engaged and committed to this work
- Other states have reached out to us about our Models project, for support and technical assistance in similar pilots

Challenges

- Execution of proposed work plan may not yield intended results
- The periodontal self-assessment is designed to be used in a medical clinic by medical providers
- Inability of electronic dental records at our pilot sites to sort patient encounters by age of patient
- Staff changes, internal processes, and communication barriers, can be prohibitive
- Having a medical and dental clinic co-located does not guarantee successful bi-directional referral
- Minnesota Health Care Programs (MN Medicaid), the non-pregnant adult dental benefit set is limited, and does not include coverage for periodontal therapy

Lessons Learned

- There is interest in the pursuit of medical-dental integration in Minnesota
- External and internal partners attended and were engaged with the symposium
- The sharing of successes and challenges is empowering and brings issues into conversation. These conversations stimulate brainstorming.
- Attendees want more symposia-style meetings
- Stories shared are a powerful call to action

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MDH HCPCD Division Leadership: Don Bishop, Mary Manning, Chuck Strobel
West Side Community Health Services: April Arnold, Lois Berndt, Paige Bowen, Silvia Diaz, Lynn Janssen
Advisory Panel: Jeff Forslund, Gary Hanovich, Shirlynn LaChapelle, Nancy Franke Wilson (Chair).

Guidelines for Models of Collaboration pilot project

- Use the self-assessment tool in total in its current form; do not make changes to the questionnaire.
- Follow the standard AHA blood pressure guidelines for this project.
- Ask patients whether they have a dental home. If not, please refer.
- The periodontal self-assessment survey information is gathered by staff; physicians create an active referral to a dental office as appropriate.
- Dental referral urgency in any category is at the discretion of the physician. Dental pain or infection can elicit increased blood pressure.
- Hypertension can be life threatening, and dental referrals should be made when safe and appropriate for the patient. Generally, patients in hypertensive crisis are not candidates for immediate dental referral.

Tool

	SBP (mm Hg) →	120-129	130-139	140-159	160+
↓ DBP (mm Hg)	<80	Normal	Elevated	Stage 1	Stage 2
	80-89	Stage 1	Stage 1	Stage 1	Stage 2
	90-99	Stage 2	Stage 2	Stage 2	Stage 2
	100+	Stage 2	Stage 2	Stage 2	Stage 2

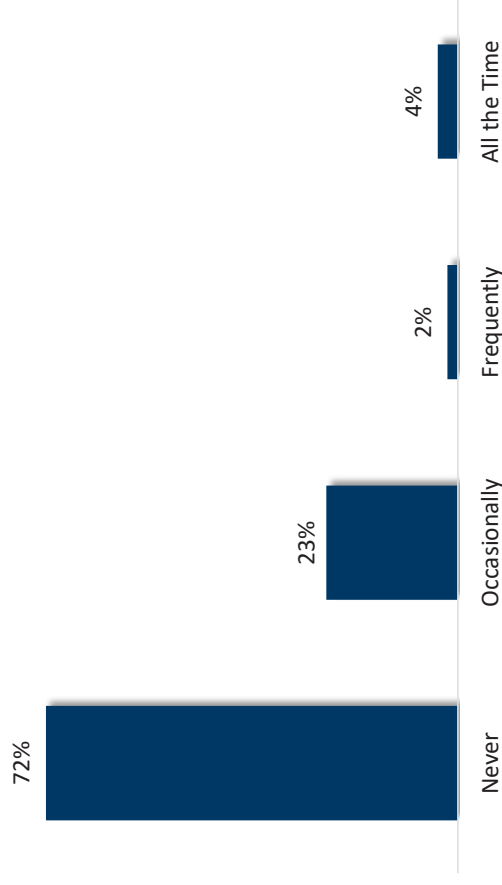
Table 1. Self-report questions created by the CDC-Periodontal Disease Surveillance Project

- Periodontal disease is a common problem with the mouth. People with gum disease might have swollen gums, receding gums, sore or infected gums, or loose teeth.
- Do you think you might have gum disease?
 - Yes
 - No
 - Don't know
 - Released
 - Overall, how would you rate the health of your teeth and gums?
 - Excellent
 - Very good
 - Good
 - Fair
 - Poor
 - Don't know
 - Released
 - Have you ever had treatment for gum disease, such as scaling and root planing, sometimes called "deep" cleaning?
 - Yes
 - No
 - Don't know
 - Released
 - Have you ever had any teeth become loose on their own, without an injury?
 - Yes
 - No
 - Don't know
 - Released
 - Have you ever been told by a dental professional that you had loose teeth?
 - Yes
 - No
 - Don't know
 - Released
 - During the past 3 months, have you noticed a tooth that doesn't look right?
 - Yes
 - No
 - Don't know
 - Released
 - Aside from brushing your teeth with a toothbrush, in the last 7 days, how many times did you use dental floss or any other device to clean between your teeth?
 - Number _____
 - Aside from brushing your teeth with a toothbrush, in the last 7 days, how many times did you use mouthwash or other dental rinse product that you use to treat dental disease or dental problems?
 - Number _____

	Indicators	Thresholds for dental appointment	Loop Closure
Routine	At least one positive response on the survey	None scheduled visit	
Important	Normal or elevated blood pressure Two or more positive responses on the survey	Stage 1 hypertension Stage 2 hypertension	4 - 8 weeks
Urgent	Two or more positive responses in Q1-Q4 Stage 2 hypertension	One month or less, with urgency determined by referring doctor	

Dental Hygienists at Work: Collaborative Agreements

Dental Hygienists' Utilization of Collaborative Agreements



- A collaborative agreement is a signed document between a licensed dentist and a licensed dental hygienist that allows the dental hygienist to work in a non-traditional setting like schools or other community-based setting without the presence of a dentist on site. Providing oral health services in community settings is one way to address access to care challenges.
- Only about 11 percent of dental hygienists have a collaborative agreement with a dentist (data not shown above). Of those who do have a collaborative agreement in place, only about four percent report practicing under the agreement all the time while 72 percent never use it.