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MCH Innovations Database Practice Summary & Implementation Guidance

Children's Dental Services

Since 1919, Children's Dental Services is a non-profit dental safety net, providing a full range of culturally focused dental services and serving as Minnesota's primary school-based and largest single provider of dental care to over 37,000 low-income children and families annually utilizing an array of modalities including culturally targeted and translated curricula, Dental Therapists, Collaborative Practice Dental Hygienists, telehealth, silver diamine fluoride, and portable dental delivery systems.



Location

Minnesota



Topic Area

Primary/Preventative Care



Setting

Community



Population Focus

Child Health



NPM

NPM 13.1: Preventative Dental Visit – Pregnancy;
 NPM 13.2: Preventative Dental Visit – Child/Adolescent;
 NPM 15: Adequate Insurance



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Section 1: Practice Summary

PRACTICE DESCRIPTION

Since its inception CDS is dedicated to serving the "poorest of the poor": CDS was created with the purpose of providing dental care to destitute Minneapolis orphans at a time when dental safety nets were nonexistent. Over the course of 100 years CDS has weathered two major recessions, major political and social change, and has emerged as a national leader and a major public dental health safety net provider for low-income children and pregnant women throughout Minnesota. As a nonprofit corporation, CDS is governed by local residents and is not a governmental entity. An executive director manages CDS' daily operations.

Dental disease remains the most common, chronic childhood illness. CDS is the only Minnesota agency dedicated exclusively to providing culturally-tailored oral health outreach, education, preventive and restorative treatment to low-income children and pregnant women. CDS is a nonprofit that has provided dental care to low-income youth since 1919, and over 100 years has emerged as a national leader and dental safety net provider for low-income patients. CDS provides a full range of culturally focused dental services and is Minnesota's primary school-based and largest single provider of dental services to low-income children serving over 37,000 annually utilizing an array of modalities including culturally targeted and translated curricula, Dental Therapists, Collaborative Practice Dental Hygienists, telehealth, silver diamine fluoride, and portable dental delivery systems.

CORE COMPONENTS & PRACTICE ACTIVITIES

CDS promotes and participates in culturally-tailored oral health education with a focus on the cultural and socioeconomic barriers facing access to oral health care. Over the last 100 years, CDS has nimbly adjusted and adapted its practices, policies, and programs to meet the needs of new communities of care, including recent influxes of immigrant and refugees. CDS has been at the forefront of legislative advances in workforce innovations, telehealth, and payment reforms, and has emerged as a national leader in oral health care access and best practices for underserved populations. At its core, CDS works to empower underserved populations to actively engage in oral and overall health access and improvement.

CDS' major goals include:

- 1) To provide culturally appropriate dental care to Minnesota communities;
- 2) To decrease barriers and increase access to dental services; and



- 3) To improve oral health education and knowledge of oral disease prevention strategies for low-income children and pregnant women

Core Components & Practice Activities		
Core Component	Activities	Operational Details
Culturally Appropriate Dental Care to Minnesota Communities	<ul style="list-style-type: none"> Annual cultural humility training for all staff Implementation of over 360 grant programs targeted funds for expansion of oral health care and education to primarily low-income, un- and underinsured, culturally diverse populations. 	<ul style="list-style-type: none"> CDS' target population is low-income children ages birth to 26 and pregnant women of any age. In response to extraordinarily limited access to oral health care since the onset of the COVID-19 pandemic, CDS sees patients of any age. See "Health Equity" and "Next Steps" in Section II for more information.
Improve Oral Health Education and Knowledge of Oral Disease Prevention Strategies for Low-Income Children and Pregnant Women	<ul style="list-style-type: none"> Development of translated materials and multilingual care providers Development of culturally-tailored oral health educational materials including oral health tooth kits and tooth fairy costumes 	<ul style="list-style-type: none"> CDS multilingual Public Health Assistants work on CDS consent-to-care forms, brochures and oral health materials to develop and translate materials into over 21 languages. CDS works closely with schools, head starts and community sites to provide outreach and education to over 100,000 patients and their families annually. CDS staff provide oral health screenings and follow up care to over 17,000 patients annually.
Decrease barriers and increase access to dental services	<ul style="list-style-type: none"> All CDS activities are working to eliminate the three main barriers to care: transportation, cost, and language/culture. CDS provides care to 37,000 patients annually across the state of Minnesota out of two bricks and mortar locations in Northeast Minneapolis and mobile-based services at over 700 sites across the state. The 700 consist of roughly 400 7-county metro area 	<ul style="list-style-type: none"> CDS was recognized for its mobile care program by the Minnesota Council of Non-profit's Mission Award for Innovation in 2006. As of 2020 CDS also provides portable dental care at more than seven hundred other locations across the state of Minnesota. See "Health Equity" section for further details. CDS accepts all forms of Medical Assistance and private insurance and CDS' sliding fee scale offers reduced-



mobile-based sites and 300 mobile-based sites in Duluth, the Iron Range, International Falls, Moorhead and Saint Cloud.

- Approximately 85% of CDS patients utilize medical assistance, 14% are uninsured and less than 1% have private insurance.
- CDS strives to hire both administrative and clinical staff that represent the communities being served.
- CDS utilized telehealth and helped pass telehealth legislation.
- CDS utilizes innovative workforce solutions

cost or free care to income-eligible families. See “Health Equity” section for further details.

- CDS’ highly skilled staff is exceptionally well-equipped to serve families from culturally diverse backgrounds. See “Health Equity” section for further details.
- Sixty percent of CDS’ staff represents minority populations and 90% are female
- From 2017 through 2021 CDS developed and has expanded a statewide Telehealth Network linking 44 sites and now providing access to care to over 8,000 additional patients annually.

HEALTH EQUITY

CDS accepts all forms of Medical Assistance and private insurance and CDS’ sliding fee scale offers reduced-cost or free care to income-eligible families. While CDS currently has appointments scheduled into September of 2021, its appointment confirmation system results in several appointments becoming available daily. This enables families in need of immediate dental care to obtain next-day appointments. CDS makes every effort to serve emergencies within 24 hours and, regardless of cost, never declines emergencies due to inability to pay. Currently 95% of emergencies are treated within 24 hours. The outbreak of COVID-19 has resulted in a lack of access to dental care due to a shortage of dentists who accept medical assistance, compounded with recent pandemic-related shortages, has led to children, pregnant women and families not receiving appropriate dental care and education. To address the lack of access to care across Minnesota due to COVID-19, including pent up demand for dental services and lack of regular school and community-based sites due to COVID-19 closures, CDS has established community-based “hub” sites in addition to its two headquarters’ locations in order to keep up with the need and continue to provide culturally-tailored services to communities where they naturally congregate. Additionally, CDS expanded its eligibility to include people of all ages, from birth through 100 plus. CDS has remained open throughout the pandemic, expanding its level of emergency care by 500% or 8,000 patients. To assist in the COVID-19 related insurance shortfall, CDS has identified and trained a team of MNSure (Medical Assistance) Navigators who assist CDS patients in applying for Medical Assistance in English, Spanish, Hmong, Somali and seventeen other languages. CDS is designated as a Critical Access provider by the State of Minnesota. CDS also offers an income-based sliding fee scale that is up to 100% free oral healthcare. With comprehensive telehealth legislation taking effect July 1, 2016, CDS has embraced a robust telehealth initiative that is successfully expanding care to remote and previously unserved communities across Minnesota.



CDS serves all children, 0-26, pregnant women of all ages, and all people 0-100 as a temporary measure in response to lack of access during the pandemic, regardless of the amount of their family income. Recognizing the relationship between the oral health of a mother and her unborn child CDS also treats pregnant women until two months post-partum. In 2020, CDS served 37,183 patients at more than 700 sites during over 94,500 procedures and more than 64,000 visits. CDS' patient makeup as of year-end 2020 was: African American (24%), Caucasian/East European (21%), East African (21%), Hispanic (17%), American Indian (9%), and Asian/Pacific Islander (8%). Twin Cities Metropolitan area including North St. Paul, in Duluth, the Iron Range, International Falls, Bemidji, Moorhead, St. Cloud, Faribault and dozens of other sites in locations where public health dental resources fail to meet the demands of a growing and increasingly diverse population. All sites have intraoral x-ray machines, and CDS' Headquarters is equipped with a panoramic x-ray machine. A full range of comprehensive dental treatment, including preventive and restorative work, is provided at each site.

CDS' clinic target population is low-income children ages birth to 26 and pregnant women (and people of all ages as a result of the COVID-19 pandemic), with low-income defined as those at or below 200% of the Federal Poverty Guideline (FPG). Approximately 96% of CDS' current patients are children and 4% are pregnant women. CDS also tailors care for cultural and ethnic minorities, with over 80% of its current patient base comprised of communities speaking English as a second language. CDS' patients are approximately 80% immigrants and refugees or communities of color and roughly 90% are communities who are on medical assistance or who are uninsured. Minnesota is, on average, among the healthiest states in the nation, however children from families with low incomes and/or from families who have immigrated to the United States have poorer oral health as a result of minimal access to dental care. According to a recent University of Minnesota study done focusing on Somali children, 75% of the children in the research study had evidence of dental caries and 56% had treatment needs. 10% had at least 3 carious lesions and 14% had 4 carious lesions. 73% reported having no regular source of dental care and only 33% had been to the dentist within the previous 12 months¹.

EVIDENCE OF EFFECTIVENESS

Beginning in 2002, CDS has evaluated all of its programs through a patient satisfaction survey, implemented with the assistance of professional program analyst, Laurie L. Meschke, Ph.D. In 2004, Dr. Meschke spearheaded a comprehensive evaluation of CDS programs. In 2004, CDS also received a grant from the United Way through which a comprehensive, ongoing program evaluation blueprint for all CDS programs is being established. The proposed project will be evaluated through these efforts and will continue to be evaluated on an ongoing basis. Evaluation results are used to compile a comprehensive program evaluation report. Utilizing this report, CDS is able to determine the need to implement any programmatic change. For example, the programs and enhancements proposed in the current application are largely a result of feedback gathered through the evaluation process. Immediate success and areas of improvement are shared with CDS' partners and stakeholders across Minnesota. CDS' long-term evaluation results are disseminated via CDS' annual report, presentations, and other publications.



Section 2: Implementation Guidance

STAKEHOLDER EMPOWERMENT & COLLABORATION

CDS clinics are located within public schools, Head Start centers, and community centers across Minnesota, as well as its Headquarters location in Northeast Minneapolis. At these and other children's organizations in the Twin Cities, CDS works in concert with personnel to provide screening and treatment programs. CDS also provides targeted dental services to the ethnic groups it serves by collaborating with agencies such as Vietnamese Family Services and the Somali Federation of America. CDS provides on-site screening, a full spectrum of dental care, and education to families across the Twin Cities through partnerships with the Andersen Family Dental Program, the Suburban Ramsey County Family Services Collaborative, the Dakota, Hennepin and Washington County Public Health Departments, and the Carver, Scott, and Washington County Departments of Human Services. CDS also works to provide targeted services to the ethnic groups it serves by working in collaboration with a variety of entities that serve specific populations such as the American Indian Family Center, Ain Dah Yung children's shelter, La Clinica, MyHealth, Broadway Family Medicine and other service organizations.

Through collaborations with several educational institutions including Argosy University, Century College, Dakota County Technical College, Hennepin Technical College, Herzing College, Lake Superior College, Mankato State University, St. Cloud Technical College, St. Paul College, and the University of Minnesota, CDS provides clinical education opportunities to interns. These partnerships not only provide exposure to the field of public health dentistry for new professionals, but also directly increase access to care for low-income patients by expanding CDS' service capacity. CDS also partners with programs such as HIRED, the City of Minneapolis Summer Youth Employment Program, Northeast Neighborhood Services, and a variety of public high schools, to provide job exploration internships in office and clinical settings for diverse youth. These youth internships offer another connection point between CDS and the diverse metro communities.

CDS works with public health officials in Hennepin, Ramsey, St. Louis and Washington Counties, the Minnesota Department of Health, and other agencies to collaborate on meeting the dental needs for recent influxes of immigrants. CDS recently partnered with Dakota, Isanti, McLeod, Meeker Counties to expand access to dental care for increasing populations of low-income children and pregnant women in these areas. CDS itself is listed in several medical and dental services resource directories, websites and is a part of United Way's 211 phone service. CDS works as a Critical Access provider by extending services to more publicly insured families. All CDS staff is trained on dental referral sources, and CDS regularly provides referrals to patients for needed follow up care not provided by CDS.

Additionally, CDS hosts and trains high school and senior interns as part of the Step-Up and Tree Trust groups and works with over 300 college and dental program interns and externs each school



year. These interns and externs receive hands-on training and clinical experiences in addition to medical record keeping, chair side assisting techniques, customer service, phone and reception skills, computer training including Open Dental, QuickBooks and Microsoft Office, and public health outreach and dental screening skills.

REPLICATION

During its history CDS has pioneered four main concepts to make dental care accessible to children. It serves as a national model and has been nationally recognized for these four concepts: 1) CDS was the first dental program in the nation to provide on-site care in Head Starts, 2) CDS specializes in providing care via a “hub and spoke” portable delivery model within schools and community settings, thereby eliminating transportation barriers, 3) since its inception CDS has provided “culturally focused” care by tailoring services and hiring highly diverse staff to meet specific cultural, socio-economic, language and other needs of target communities, and 4) CDS is a leader in utilizing workforce solutions to improve access to dental care for low-income people.

CDS has received extensive award recognition for these initiatives, and these four concepts have been replicated in communities across the US. CDS’ telehealth initiative has been seamlessly implemented into over 300 new sites that CDS established since its legislative authorization. The programs and initiatives promoted by CDS are wide-reaching and standardized, enabling other clinics and communities to easily replicate and incorporate. CDS was recognized for its mobile care program by the Minnesota Council of Non-profit’s Mission Award for Innovation in 2006. In 2017 CDS received a DOT.org Award from the Minnesota Council of Nonprofits for the implementation of a successful telehealth network serving rural Minnesota communities. CDS upper management travel to the National Oral Health Coalition and dozens of other conferences annually to share and learn best practices for oral health education and knowledge of disease prevention.

CDS continues to be at the forefront of dental innovation and health equity. CDS is a leader in utilizing workforce solutions to improve access to dental care, which includes utilizing Dental Therapists (DTs) and Advanced Dental Therapists (ADTs) to provide restorative care and Collaborative Practice Dental Hygienists to provide preventive services in community locations without a dentist present. CDS has been a primary player in integrating ADT graduates into practice, pioneering several of the protocols required to satisfy the practice and testing requirements for ADT graduates to become licensed by the Minnesota Board of Dentistry. In fact, CDS currently employs the first ADT in the nation to complete 2,000 hours of clinical practice and become licensed to practice independently. CDS is also a leader in integrating tele-dentistry and laser technology into its treatment, providing an innovative training ground for dental and public health students. CDS contributed to the passing of dental therapy legislation in Minnesota and has continued to help states across the nation pass workforce legislation.

Additional initiatives that CDS has successfully and innovatively administered include:



- Mobile-based, on-site services in school, head start centers, Women, Infant, and Children (WIC) clinics, homeless shelters, public health buildings and various community sites
- Co-located services in medical offices and locations where patients naturally congregate to meet other basic needs
- Use of teledentistry as a model of care
- Robust clinical extern training programs for dentists, dental therapists, advanced dental therapists, hygienists, dental assistants, pre-dental students, public health students, community-health workers, medical residents, and nursing students.
- Oral health and opioid use disorder (OUD) and substance use disorder (SUD) coordinated care, education, and referrals in rural Minnesota

Each of these initiatives have helped CDS to address health inequities and discrimination in its community and throughout the state by providing the fundamental right for people to access dental care and education, focusing on those who are the most at-risk and underserved and providing culturally-tailored care.

INTERNAL CAPACITY

- **A six-member board** of directors, none of whom receives compensation, governs CDS. As a nonprofit corporation, CDS is governed by local residents and is not a governmental entity. An executive director manages CDS' daily operations.
- **Executive Director:** Over nearly 2 decades the CDS' ED has overseen the growth and development of the organization from 18 employees serving 3,000 patients at 9 sites to over 100 employees serving over 700 sites and 37,000 patients annually. Infrastructure developed includes bylaws, employee benefits, employee and operations handbooks, and economic growth from a budget of \$400,000 to one exceeding \$6 million.
- **Dentist:** provides clinical treatment including a full range of restorative services.
- **Advanced Dental Therapist:** provides a partial scope of restorative services.
- **Registered Dental Hygienist:** provides preventive dental services and education.
- **(Licensed) Dental Assistant:** aids in care provision, charting and outreach for patient visits and care coordination and education with health and educational partners.
- **Public Health Assistant:** provides administrative assistance for scheduling, as well as performing outreach activities.



PRACTICE TIMELINE

Phase: Planning/Pre-Implementation

Activity Description	Time Needed	Responsible Party
Increase access to dental services	Yearlong 85 FTEs	Sarah Wovcha (Executive Director)

Phase: Implementation

Activity Description	Time Needed	Responsible Party
Providing culturally appropriate dental care	Provided during every site visit and at all CDS locations. Also, during multiple grant funded projects per year. 85 FTEs	Sarah Wovcha (Executive Director) CDS Dental Care Provider Team

Phase: Sustainability

Activity Description	Time Needed	Responsible Party
Fundraising and ongoing operations planning	Ongoing 15 FTEs	Executive Director



PRACTICE COST

Budget			
Activity/Item	Brief Description	Quantity	Total
Staffing	All personnel required to run non-profit and deliver dental care	N/A.	\$3,500,000
Equipment and Supplies	Equipment includes dental instruments such as handpieces, dental equipment such as chairs, lights, and imaging tools, office equipment such as computers and electronic health record software and licensing, and sterilization equipment such as preparation tables and sterilizers/autoclaves.	N/A.	\$800,000
	The mobile unit equipment includes vans and van maintenance, mobile dental units, portable lights, patient and provider chairs, instruments, and mobile imaging tools (Nomad)	N/A.	\$200,000
Buildings and Operations	Maintenance, Cleaning, Insurance	N/A.	\$535,025
Consultants and Fees	Accounting, bookkeeping, technology, policy, licensing, and evaluation	N/A.	\$3,500,000
Total Amount:			\$ 5,035,025

LESSONS LEARNED

For many of the children served under CDS initiatives, the services provided to them comprise their first visit with a dental provider. The children served are therefore often anxious or fearful. CDS



addresses this challenge by working closely with site partners, parents, siblings, teachers, nurses, and other health staff to assist in providing comfort to children. Often just having a sibling present to hold the patient's hand overcame this barrier. Ultimately CDS is able to successfully provide treatment to all children at portable satellite locations.

Some of the greatest health disparities across Minnesota are reflected in the low-income communities across the state that CDS has served over the last 100 years. Under its initiatives, CDS utilizes an approach to advancing health equity by 1) engaging target communities in determining best practices for care provision, 2) establishing a process that ensures the strategies used are directly linked to inequities in oral health, 3) developing multiple tools for ensuring a comprehensive, broad approach to addressing inequities, 4) understanding and accounting for diversity within the target community itself, and 5) identifying a process for recognizing and addressing unintended consequences and/or implementation challenges that may occur. Integrating the target community in the provision of care is key to ensuring not only that low-income children and their families receive access to the same quantity and quality of oral health services that their more affluent peers receive but will also empower these communities served to take control of their oral and overall health.

CDS' mission is to provide all patients with the opportunity to receive the same, essential dental care and education. Via its programming activities, CDS provides low-income children and their families' access to the oral health care and education they have the fundamental right to receive.

CDS' primary measure of success is the increase in access to oral health care and education for at-risk and underserved communities. Secondary, but equally as important measures of success include workforce innovations and connecting communities served to other aspects of their healthcare including opioid use disorder and substance use disorder (OUD/SUD) care and education and mental health care.

NEXT STEPS

Three main factors that continue to challenge oral health in Minnesota are: 1) lack of dental providers, 2) lack of funding, and 3) increase in need. There continues to be a significant shortage of public health dental providers who will serve low-income and underinsured children and pregnant women across the Twin Cities. The majority of the Twin Cities Metropolitan Area and Greater Minnesota continue to be designated as Dental Health Provider Shortage Areas (DHPSAs). Minnesota's shortage of public health dental professionals is highlighted in recent, grim statistics. The most recent Minnesota Department of Human Services report provides that only 23.5% of Minnesota children ages 1 to 20 years on Medical Assistance received at least one past year preventive dental service. (2015 Minnesota Health Access Survey, Minnesota Department of Health, Health Economics Program.) A 2018 survey conducted by CDS found that only nine dentists in Minnesota accept patients covered by public insurance and have a waiting period of less than nine weeks. More than half of children insured by public programs are unable to receive dental services until there is an emergency, such as bleeding of the gums, pain in gums and/or teeth, infection, etc. (Minnesota



Department of Human Services (2001). Dental Access for Minnesota Health Care Programs Beneficiaries: Report to the 2001 Minnesota Legislature.).

RESOURCES PROVIDED

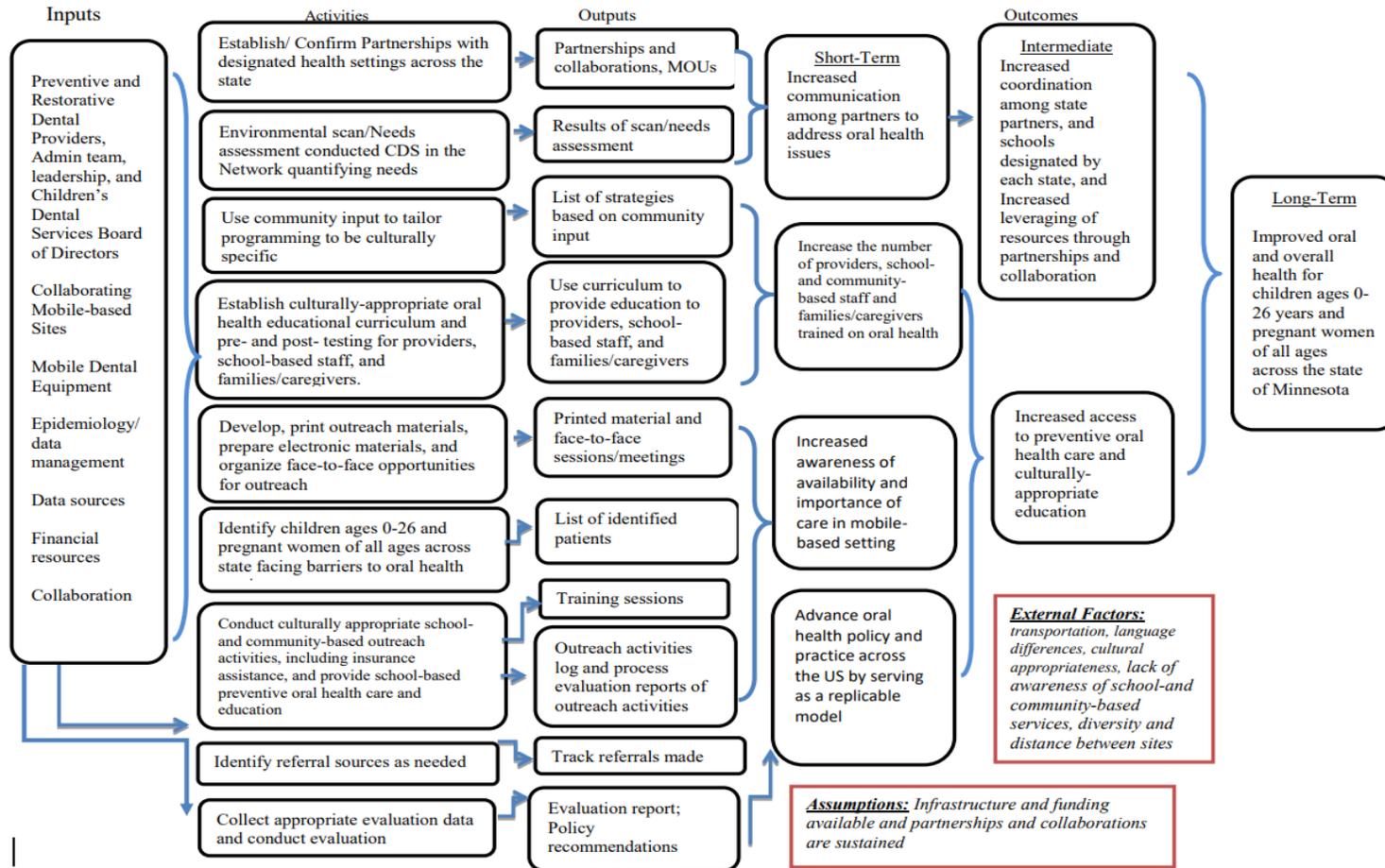
- Children’s Dental Services HRSA Brochure & Children’s Dental Services WIC Brochure
- Additional resources, links, videos, etc. here:
 - <https://www.mprnews.org/story/2020/04/16/when-a-patient-really-needs-to-open-wide-but-the-dental-office-is-closed>
 - <https://www.startribune.com/foundations-drill-down-into-oral-health/447208113/>
 - <https://www.startribune.com/st-paul-elementary-schools-to-offer-dental-care-to-some/33549334/>
 - <https://www.youtube.com/watch?v=R-HDJT9XVyQ>
 - <https://www.mwmo.org/projects/childrens-dental-services/>



APPENDIX

- Appendix 1: Children’s Dental Services Logic Model

Children’s Dental Services Logic Model



ⁱ David Born, PhD, and James Hodges, PhD. School of Dentistry, Department of Preventive Sciences, University of Minnesota, “Oral Health Status of Somalia Children in Minnesota” https://apha.confex.com/apha/131am/techprogram/paper_61860.htm

