Center *for* Rural Health

North Dakota Oral Health Report: Needs and Proposed Models, 2014

EXECUTIVE SUMMARY

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Project Completed by

Shawnda Schroeder, PhD
Project Director

Yvonne Jonk, PhD
Kristin Schuller, PhD
Ken Hall, JD
Gary Hart, PhD
Brad Gibbens, MPA

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Background

In spring of 2014 the North Dakota Center for Rural Health was tasked with completing an objective assessment of oral health need and policy recommendations for North Dakota. This study was undertaken in response to the Health Services Interim Committee which, under HB 1454, was responsible for a Legislative Management study on oral health. Work was complete under funding from the Pew Charitable Trusts. The project included assessing the existing oral health workforce and service capacity, assessing the potential unmet need for oral health care, and producing a written report of needs, outcomes, findings and stakeholder recommendations to be compiled and presented to the Health Services Interim Committee in an impartial fashion.

North Dakota Oral Health Need

The reviewed data, North Dakota Oral Health Stakeholder perspectives and state oral health input group responses all pointed to three primary oral health needs for the state to include (in no order):

1. Prevention Programs: Need for greater oral health literacy and prevention across the state, with greatest need among special populations (to include children, the aging population, Medicaid patients, low-income, homeless, new Americans, American Indians, rural, and those with physical/mental disabilities)

2. Dental Insurance: Need for Medicare and Medicaid expansion; specifically, increase Medicaid reimbursement to incentivize dentists to accept more Medicaid patients, and restructure services provided among long term care residents to fit current Medicare reimbursement – need for coverage and services for Medicare enrollees

3. Workforce and Access to Care: Need to improve access to care and need to adjust the uneven distribution of the current workforce in order to meet the needs of North Dakota Citizens, especially special populations

The discussion regarding access to care and creation of a larger workforce was not a general concern for more dentists. Instead, much of what was discussed related to disparities in access among populations with greatest need, to include:

- Need to increase the number of dentists in rural and tribal communities.
- Need to increase the number of dentists accepting Medicaid patients.
- Need to increase the number of oral health providers available to meet the needs of the aforementioned special populations. This may or may not be a need for dentists.
- Need for more dental assistants in the state, especially in the Western half of the state where the patient population and needed dental care have changed and increased as the result of the recent oil boom.
- Need to use dental hygienists at their full scope of work, allowing more dental hygienists to work under general supervision of a dentist, providing preventive care and education in communities with high need.
- Need for oral surgeons, specifically, those who will accept Medicaid patients – in both rural and urban communities.

Data, stakeholder discussion, and input responses all indicate a need to provide oral health services to populations in need. There is inadequate prevention, low oral health literacy and poor access and utilization for both preventive and restorative care among Medicaid patients, the uninsured and

underinsured. Following is a presentation of the current oral health needs in the state as evident from current data reports and evidenced-based research. See the complete report *North Dakota Oral Health Report: Needs and Proposed Models, 2014* for more data and discussion of the needs in the state.

State Data: Oral Health Need

- Rural third grade students reported worse oral health when compared to their urban peers.[i] *See Appendix A, Figure 1*
- American Indian third graders reported higher rates of tooth decay, untreated decay, rampant decay, and need for treatment than their white and other minority peers.[ii] *See Appendix A, Figure 2*
- More third graders presented with history of decay, untreated, treated, and rampant decay among schools where 50% or more of students qualified for Free/Reduced Lunch. *See Appendix A, Figure 3*
- North Dakota has one of the highest Medicaid reimbursement rates; 62% in 2013. (Medicaid dollars paid divided by Medicaid dollars billed over five years in ND).[iii]
- Medicaid reimbursement rates increased in 2011, 2012, and 2013 yet the percentage of Medicaid-enrolled children who had had a dental visit in the last year declined over that same period.[iv] *See Appendix A, Figure 4*
- A majority of dental practices that had billed Medicaid in 2013 (58%) saw 50 or fewer Medicaid patients; 65 of the 249 (26%) saw more than 100 Medicaid patients.[v] *See Appendix A, Figure 5*
- Only 8% of the dental practices billing Medicaid in 2013 provided care to a majority (52%) of the Medicaid enrollees accessing dental services.[vi] *See Appendix A, Table 1*
- Nearly 80% of all Medicaid patients that saw a dentist in 2013 were seen at only 26% (65) of the dental practices there were billing Medicaid (249 total billing Medicaid); this does not account for those practices that saw no Medicaid patients.[vii] *See Appendix A, Table 1*
- In 2009 only 20% of dentists accepted *new* Medicaid patients. This number is much lower than the 49% of practicing dentists who accepted new Medicaid patients in 1992.[viii]
- In 2013, 73% of Medicaid enrolled children went without a preventive dental visit in the last calendar year with fewer than 5% receiving a sealant on a permanent molar tooth.[ix]
- Adolescents had high rate of annual dental exams (75%) in 2012; only 30% of Medicaid-enrolled children had a dental visit in the last calendar year.[x]
- 67% of North Dakotan adults, 18 and older, reported having been to the dentist in the past year.[xi]
- Rate of adults over 65 missing all teeth has been on the decline; however, those 65 and older were more likely than any other age group to have reported an oral health problem (32%).[xii]
- In 2014, 12 counties had no dentist, 9 had 1, 9 counties had 2 dentists, and five counties had not reported. *See Appendix A, Figure 6*
- In 2013, 67% of all the licensed North Dakota dentists worked in the four largest counties: Burleigh, Cass, Grand Forks, and Ward.[xiii]
- The dentist to population ratio is approximately 61 per 100,000 in North Dakota which is below the national trend of 76 per 100,000.[xiv]
- The number of active licensed dentists in North Dakota has slowly increased from 2007 (327 dentists) to 2013 (380 dentists); however, 35% of those who responded to the dental workforce survey in 2013 planned to retire in the next 15 years.[xv]
- There has been a decline in the number of Head Start children needing treatment who received the needed treatment; 95% in 2010 declining annually to 75% in 2013.[xvi] *See Appendix A, Figure 7*
- There has been an increase in rate of dental sealants though the percent of 3rd grade students with caries has not changed (55% in 2010) and percent of 3rd grade students with untreated tooth decay has more than doubled from 17% in 2005 to 46% in 2010[xvii]
- There are no professional dental schools that have reciprocity (in-state tuition) agreements with North Dakota, and the state has no dental school.

North Dakota Oral Health Stakeholder Working Group Recommendations

Throughout the process of identifying recommendations for North Dakota, oral health stakeholders and input group members developed and discussed 24 possible models for the state, all of which will be highlighted in this report. However, the North Dakota Stakeholder Working Group was charged with making the final recommendations regarding action priorities. The summary of the final recommendations proposed by the Oral Health Stakeholder Working Group was sent for review and approved by the participating members. See Appendix B for the list of participating stakeholders and input members. The oral health priority recommendations for the state include the following:

Highest Ranked Oral Health Recommendations by Oral Health Stakeholder Group

1. Increased funding and reach of safety-net clinics to include services provided in western North Dakota; uses models/idea/support from nonprofit oral health programs similar to Apple Tree Dental and Children's Dental Services to promote hub-and-spoke models of care.
2. Increased funding and reach of the Seal! North Dakota Program to include using dental hygienists to provide care, and incorporating case management and identification of a dental home as proposed under the North Dakota Dental Association's case management model. Includes Medicaid reimbursement for services rendered.
3. Expand scope of dental hygienists (DHs) and utilize DHs at the top of their current scope of work to provide community based preventive and restorative services, and education among populations of high need.
4. Create a system to promote dentistry professions among state residents, and encourage practice in North Dakota through a consolidated loan repayment program and partnership/student spots at schools of dentistry.
5. Increased Medicaid reimbursement.

Of the above priority models, none received more than 33% of the stakeholder vote in the final survey. Earlier data from an initial stakeholder survey and qualitative data from the Stakeholder Working Group Final Consensus Meeting corroborate these findings. The five priorities listed had the greatest support of the group and also ranked in the upper tier for anticipated *impact*, *likelihood*, or both in the initial assessment (See Appendix D for final survey results).

- How great of an *impact* would each proposed model have on its intended population/focus?
- How *likely* is it, given the current oral health environment (political, economic, social, demand)?

Read chapter *IV. Proposed Models to Improve North Dakota Oral Health Status* in the complete report *North Dakota Oral Health Report: Needs and Proposed Models, 2014* for more survey detail, presentation of the results, and analysis of the working group discussions.

Process for Identifying Oral Needs and Priorities in North Dakota

Though funded by the Pew Charitable Trusts, the Center for Rural Health were contracted to work independently from the organization, identifying their own process and methodology for developing a report on oral health needs and recommendations for the state. The Center for Rural Health identified two

North Dakota groups: (1) a primary Oral Health Stakeholder Working Group; and (2) an Oral Health Input Group. See Appendix B for the list of participants.

The Oral Health Stakeholder Working Group was comprised of individuals in the state who were identified as active in, and knowledgeable about, North Dakota's oral health environment. Specifically, their represented organizations served populations that either accessed or struggled to gain access to oral health services. The stakeholders participated in three video conference calls and two face-to-face meetings, identifying oral health-related needs and models. They were also responsible for reviewing all reports provided by the Center for Rural Health, and most importantly, making the final oral health recommendations for North Dakota.

The North Dakota Oral Health Input Group consisted of entities in North Dakota that worked in or with oral health, to include provider organizations. Input group members were asked to share their knowledge regarding oral health access, workforce, and current North Dakota and potential ameliorative models; specifically, they were sent three questions to respond to for inclusion in the report of needs. Various input members were invited to present at stakeholder meetings. Input members were also sent drafts of each report developed by the Center for Rural Health and invited to provide feedback, edits, or additional information.

The Stakeholder Working Group met regularly to identify and develop oral health best practices and models for North Dakota. During these meetings, four national experts were invited to speak about models that have worked in their respective states (Appendix B). Figure 1 illustrates the process and information that were utilized by the CRH to identify and detail the final priority recommendations of the Oral Health Stakeholder Working Group.

Figure 1. Identification of North Dakota Stakeholder Group's Oral Health Priorities

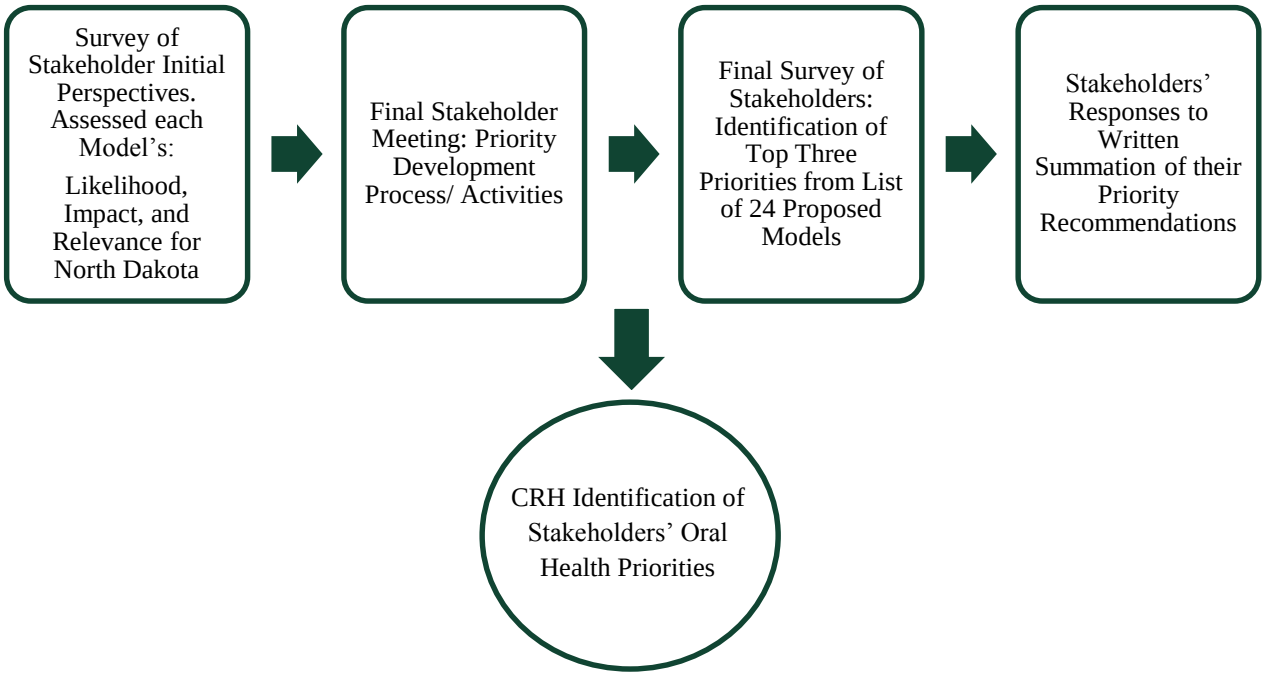
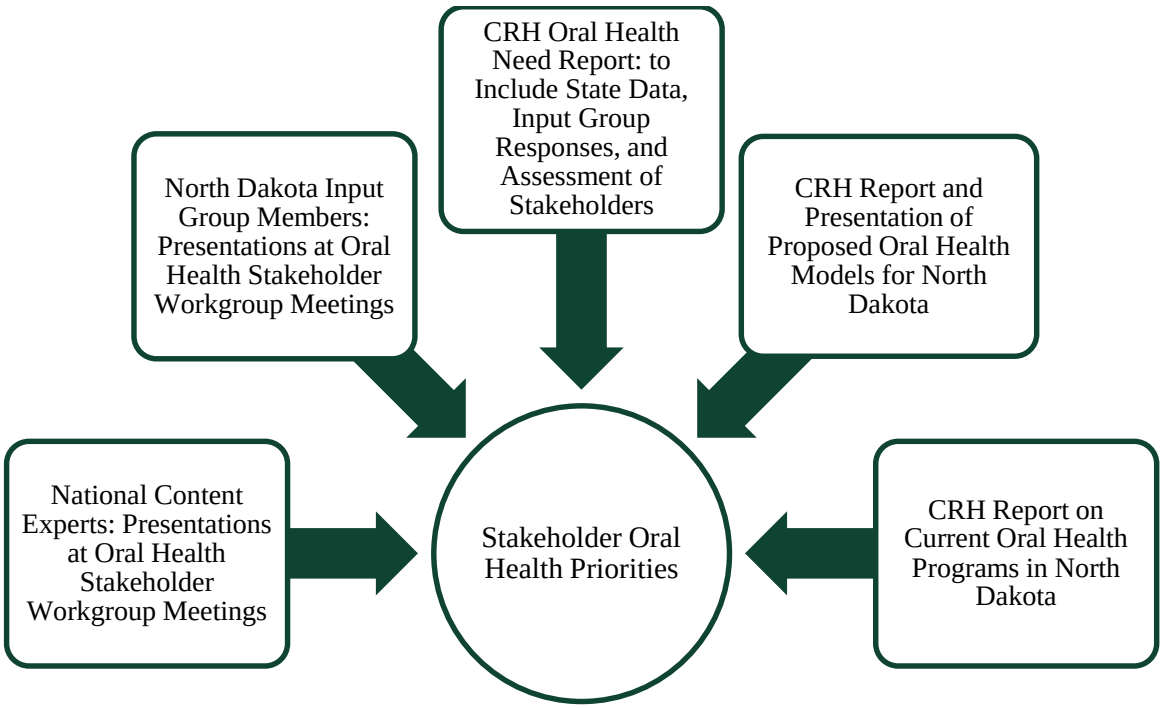


Figure 2 presents the flow and sources of information utilized by the Oral Health Stakeholder Working Group, as a result of their participation in the CRH's process, in making final recommendations for the state.

Figure 2. Sources of Information Provided by the CRH to the Oral Health Stakeholder Working Group



Model Interventions to Improve the Oral Health Status of North Dakota

While the stakeholder group identified the aforementioned priorities for North Dakota, other model interventions were discussed over the duration of this project. Following is a presentation of the 24 models. All models identified were included per request of a stakeholder, an input member, or both. While the stakeholder group identified priorities for the state, all of the following models were suggested at some point during the process. The following table also states which of the three identified oral health needs the proposed models would address. In both Table 1 and Table 2, the shaded interventions are those that were identified as the first and necessary steps in a larger effort to improve oral health services in the state. The stakeholder priorities are highlighted within Table 1. Table 2 provides a brief description of each proposed intervention model. For greater detail regarding any of the listed recommendations, read the complete report, *North Dakota Oral Health Report, Need and Proposed Models, 2014* at ruralhealth.und.edu/projects/nd-oral-health-assessment.

Table 1. Oral Health Models for North Dakota and their Category of Need
*****Stakeholder priority recommendations are shaded below

	MODEL	NEED
1	Purchase of mobile equipment: Provider "check-out" across state	Access to Care
2	New fluoride water systems in the west	Prevention
3	Increased reach of sealant programs in eligible schools (see model 22)	Prevention
4	North Dakota AHEC dental outreach: Dental students in ND schools (model 24)	Workforce
5	Dental therapy/mid-level provider	Workforce
6	Dental school in North Dakota	Workforce
7	Expand the scope of practice and allow dental professionals to practice to the full extent of their training	Workforce
8	Safety-net clinic(s) in western North Dakota (see model 23)	Access to Care
9	Expand safety-net clinics – state funding (see model 23)	Access to Care
10	Expand Children's Dental efforts (see model 23)	Access to Care
11	Establish dental assisting schools in western North Dakota	Workforce
12	Expand Bridging the Dental Gap: Funding for non-profit (see model 23)	Access to Care
13	Medicare expansion to cover dental	Dental Insurance
14	NDDA case management program (see model 22)	Prevention
15	Apple Tree Dental (see model 23)	Access to Care
16	Increase Medicaid reimbursement	Dental Insurance
17	Eliminate long term care per-resident fee: Make allowable cost	Dental Insurance
18	Expand loan repayments/programs (see model 24)	Workforce
19	integration of oral health and primary care	Prevention
20	Collaborate with border dental schools for student spots: Require students to return to ND (see model 24)	Workforce
21	Use of existing free travel to transport rural or other geographically challenged individuals to current dental practices	Access to Care
22	Increase reach of Sealant Program through state funds, utilization of dental hygienists current scope of practice, and work to incorporate the case management model by training the dental hygienists to complete case assessments and dental home recommendations. Also requires developing case management as an allowable cost and working to ensure reimbursement for sealants to make it a sustainable program.	Prevention
23	Expand safety-net clinics - use models/ideas/support from non-profits like Apple Tree and/or Children's Dental to strengthen hub-and-spoke model of safety-net care in the state	Access to Care
24	Create a system to promote dentistry profession in ND: Increase dental loans, consolidate the loan programs, and work with out of state dental schools to reserve spots/in-state tuition and develop externships/rotations in North Dakota	Workforce

Table 2. Proposed Oral Health Models and Descriptions: North Dakota, 2014

*****Stakeholder priority recommendations are shaded below

PROPOSED MODEL	BRIEF DESCRIPTION
1. Purchase of Mobile Equipment: Provider "Check-Out" Across State **[Access to Care]**	Bridging the Dental Gap, in partnership with the North Dakota Oral Health Coalition is working to establish mobile dental equipment across the state to be utilized by either public health or private dental practice professionals. This equipment would be housed in long term care (LTC) facilities; space is available, and residents are one of the many populations in need of oral health care in North Dakota. While the initiative could be led by an existing oral health program, initial funding would be required to purchase the equipment. Early estimates have identified eight LTC sites across the state, each looking to house one mobile unit at $25,000 per unit. The total to fund equipment needed to employ the initiative is $200,000. These resources could be utilized by both private practice dentists and their dental teams, and public health dental teams. Care could then be provided in Head Start schools, at tribal locations, public schools, LTC facilities, and other community programs with populations in high need. A report on similar programs in North Carolina and Connecticut that were implemented through existing federally qualified health centers (FQHCs) noted that, after purchase of the equipment, "because fixed dental facilities or mobile dental vans are not necessary, the capital needed to implement this program is modest. Likewise, FQHC current reimbursement rates are usually adequate to cover program costs" (Bailit & D'Adamo, 2012). In North Carolina, the start-up capital expense for equipment was $30,000 per mobile unit.
2. Water Fluoridation in Western North Dakota **[Prevention]**	Ensure newer communities in western North Dakota are receiving fluoridated water. While all participating members agreed that fluoridated water is imperative for prevention of oral health caries, it was also noted that North Dakota does especially well with regard to fluoride exposure. Again, in North Dakota, the percent of the population served by fluoridated public water systems has remained relatively constant over time, ranging from 96% in 1992, 96% in 2006, and 97% in 2012 (Fluoride Action Network, 2012). In 2012, North Dakota ranked fifth in the United States for percentage of the population with fluoridated water; only Kentucky, Maryland, Illinois, and Minnesota ranked higher (CDC, 2012). For comparison, the percentage of the entire U.S. population with fluoridated water from a community water system was 74.6% (CDC, 2012).
3. Increased Reach of Sealant Programs in Eligible Schools **[Prevention]**	With funding from the state, the program as it currently stands could expand reach to all schools in the state and provide sealants to all eligible students. The Seal! North Dakota school-based dental sealant program has provided preventive services to 52 elementary schools over the last two years, covering 13% of the total number of elementary schools in North Dakota (394 total schools). Other sealant programs have received state funding. In addition, to be sustainable, many other state sealant programs work with Medicaid, CHIP and other third party insurers to cover the sealants and reimburse for care provided. North Dakota currently does *not* cover sealants (Children's Dental Health Project, 2014).

PROPOSED MODEL	BRIEF DESCRIPTION
4. North Dakota Area Health Education Center (AHEC) Dental Outreach Model **[Workforce]**	Without a dental school, North Dakota relies on dentists trained elsewhere to sustain the dental workforce; specifically, students from the regional schools of dentistry (University of Minnesota, Creighton University, University of Nebraska, University of Iowa and other institutions). In North Dakota, the per capita supply of oral health professionals varies widely. Oral health professional shortages are located in rural, underserved and Native American communities. The lack of dental clinical rotation experiences challenges the opportunity to recruit the dental workforce. The AHEC Dental Outreach Model would establish clinical sites in areas of high need in North Dakota to host dental students during their clinical rotations. Sites under consideration include: North Dakota State College of Science; Northland Community Health Center; Quentin Burdick Health Center; and other federally qualified health centers (FQHCs). Under this model, the AHEC would need to identify and contract with adjunct faculty and obtain financial support for the students that would participate in the four week dental clinical rotation. As it stands, the model proposes to accept two dental students a year over a four year pilot project. To build and sustain the program following the pilot, it would require legislative approval and funding as a state program. The pilot is proposed to be funded primarily through state grant and federal dollars.
5. New Oral Health Professional: Midlevel Dental Professions **[Workforce]**	Midlevel dental professions requires a new classification of provider in North Dakota, new reimbursement models, and a new educational program. In Minnesota, midlevel providers may be dental therapists (DT), advanced DTs, or a licensed oral health care professional (OHCP). In Alaska, the midlevel is a dental health aide therapist (DHAT). Midlevel providers who practice on a dental care team educate patients and provide clinical and therapeutic patient services. Advanced/dental therapists and DHATs are midlevel providers with distinct educational, examination, and practice requirements above that of a dental hygienist (Minnesota Board of Dentistry, 2014). The practice of DTs/OHCPs is under general dentist supervision and is limited to mostly oral health prevention and education primarily in areas with larger populations of low-income, uninsured, and underserved people or dental health professional shortage areas (University of Minnesota, 2014). Minnesota offers a program for dental therapy (requiring a four year degree) and a program for advanced DT (Master's Degree, two years in addition to DT). Alaska's midlevel program is a two year program and only requires a GED for admission. North Dakota has reported increased need for oral health prevention and care among special populations. The role of a dental therapist in other programs is specifically that – to meet the needs of the currently underserved through restorative and preventive care, and education. Dental therapists could work in various community health centers, specifically targeting special populations and providing preventive services. Dental therapists would also function well in mobile units, as has been seen in Minnesota's Children's Dental Services, and Apple Tree Dental. With a dental therapist providing more preventive care traditionally completed by a dentist, the dentist has greater availability to accept and provide restorative care for more complex cases. It has been stated that, in North Dakota, there is a need to improve access to care among the Medicaid population and other special populations. This model would not only provide access to special and rural populations, but would also generate available workforce to address restorative care, oral health prevention, and oral health literacy in the community.

PROPOSED MODEL	BRIEF DESCRIPTION
6. A Professional School of Dentistry in North Dakota **[Workforce]**	While not considered a necessary effort for North Dakota by the stakeholder and input members, a school of dentistry would address professional dental workforce concerns. North Dakota has no school of dentistry, no relationship with border dental schools to provide in-state tuition, and no existing sustainable program to promote local dental rotations by students at border universities. In 2012, the University of Utah trustees approved a school of dentistry and a related four-year doctoral program. The school was funded through $37 million in private pledges. While the state of Utah had a dental school prior to this program, it was necessary to have an additional professional school to maintain an appropriate dentist to patient ratio; Utah needs 75-85 new dentists/year to meet patient demand. The overall goal of the school was to improve access to dental care for Utah's rural and underserved areas and recruit students into the program from these communities (Maffly, 2012).
7. Expanding the Role of Dental Hygienists (DHs) **[Workforce]**	Begin to utilize the large volume of dental hygienists and employ them to practice at the top of their current scope of work. Also, look to expand the current scope of practice when a majority of dental hygienists are practicing at the top of the current limit of practice. There was stakeholder support for utilizing hygienists more readily at their current scope of practice with potential expansion, but little support for increasing the current scope of practice for dental assistants. Most importantly, it is necessary to use DHs under a standing order of a dentist and with general supervision facilitating the provision of preventive and restorative care and improving levels of oral health literacy in community settings without the dentist present. North Dakota has a dental hygienist program and could expand the curriculum to also supplement training of dental hygienists to a broader scope of practice.
8. Safety-Net Clinics in Western North Dakota **[Access to Care]**	In 2013 there were five safety-net clinics providing oral health services in North Dakota. No safety-net dental clinics are located west of Bismarck leaving high demand for oral health care in the western part of the state, specifically among disadvantage populations. The population to dentist ratios in some Western North Dakota counties are as low as 758:0, 1,095:1, and 9,495:1 (RWJ Foundation, 2014). One or more safety-net clinics or community health centers providing dental services, located in western North Dakota, could serve the special populations that currently lack access to oral health care services. Federal grant dollars and donations could be used to fund such clinics, similar to other safety-net dental clinics in North Dakota. However, development, funding, and staffing of a new clinic may be time consuming and expensive; expansion of services and reach of existing facilities was then proposed (see Model 9).

PROPOSED MODEL	BRIEF DESCRIPTION
9. Expand Reach and Services of Safety-Net Clinics through State Funding **[Access to Care]**	Expansion of current safety-net clinics through state funding could include developing oral health services in safety-net clinics that currently do not provide oral health care, and/or providing funding to support satellites and a larger workforce at existing oral health safety-net clinics. Currently, there are no state appropriated dollars for North Dakota safety-net clinics. Other states do provide support. In 2014, three safety-net health clinics in Florida received funding in the current year's state budget; one of which was a dental clinic. In all, the Florida clinics are set to receive $750,000 from the state in the 2014-2015 budget year to increase services provided to low-income rural residents (Staff Report, 2014). Free clinics (not including federally qualified health centers) are allowed to receive federal, state or local dollars to support operating costs, however, nationally only 31% were currently receiving government revenue (Darnell, 2010). Additional funds may support hiring of a permanent dentist, a full-time hygienist, and/or an oral surgeon. A 2005 report stated that safety-net dental clinics generally operate with limited staffing and low budgets, relying on referral relationships with local dentists. However, those clinics with "full-time dentists or any dental hygienists had higher annual numbers of dental visits" meeting a greater patient demand (Byck, Cooksey & Russinof, 2005).
10. Expand Children's Dental Efforts **[Access to Care]**	Children's Dental Services (CDS) in Minnesota provides in-clinic care while also utilizing portable dental equipment to reach the underserved. CDS is a large independent nonprofit agency that works to provide accessible oral health services to all children from birth through age 21, while also serving pregnant women. In Minnesota, CDS utilizes dental and advanced dental therapists to provide services on and off site. While CDS serves some North Dakota residents at their Moorhead, Minnesota location, they have also recently signed a contract with a North Dakota school district to provide oral health services. If successful, North Dakota could look to provide funding to the Children's Dental Services in Minnesota to expand their services and reach in North Dakota communities.
11. Establish Dental Assistant Schools in Western North Dakota **[Workforce]**	There is one entry-level dental program in North Dakota at the North Dakota State College of Sciences in Wahpeton, North Dakota. The program is limited to admitting only 26 dental hygiene students and 20 dental assistant students annually. Bordering states have 13 (Minnesota), 1 (South Dakota) and 2 (Montana) CODA-Accredited Dental Assisting Programs (Dental Assisting Nation Board, Inc., 2014). While there is a dental assisting school in North Dakota, it is not located in the West where the need for dental assistants is the greatest. Conversations have focused on not only adding new programs for certified DAs in the state, but offering the education online as well. This effort would require support from various entities, including those institutions already providing these programs, as well as funding to develop new programs, hire personnel, and support the initial cost of developing the programs.

PROPOSED MODEL	BRIEF DESCRIPTION
12. Expand Bridging the Dental Gap: Funding for Oral Health Nonprofits **[Access to Care]**	Bridging the Dental Gap is a nonprofit that provides oral health services to low-income, uninsured, and Medicaid patients in the Bismarck-Mandan area. Funded in part by Medicaid payment, the services also rely heavily on grant dollars and donations. State funding could support many of the organization's efforts. One time funding for the nonprofit could aid in the purchase and maintenance of new and current mobile equipment being utilized in the Elderly Care Direct Services program, providing oral health care to long term care (LTC) residents in LTC facilities. State funding could expand the reach of the nonprofit as it currently only serves patients within a 75 mile radius of Bismarck-Mandan. A similar program in Turtle Lake, Wisconsin provides oral health services to low-income families (below 185 percent of federal poverty level), individuals with disabilities, and those living in supervised-care facilities. The program originated through Federal grant dollars and relies on Medicaid reimbursement. However, like the North Dakota nonprofit, the program is only 50% self-sustained through Medicaid reimbursement. In 1999-2001 continued funding for the Wisconsin program was facilitated by the region's U.S. Congressman; in 2002-2003, funding was established as a state budget line item (Fos & Hutchison, 2010).
13. Medicare Expansion to Cover Dental **[Dental Insurance]**	Medicare does not cover routine or restorative dental care services, dentures, or tooth extractions except in emergent cases that are deemed medically necessary and are part of an otherwise covered inpatient procedure or hospitalization. Medigap policies do not cover dental benefits. Dental uninsurance remains a significant problem for Medicare beneficiaries with many uninsured and unaware of their lack of coverage.
14. Case Management Model: The North Dakota Dental Association **[Prevention]**	Enable registered dental assistants and hygienists, employed by a collaborative dental office, to provide oral health assessments, fluoride varnish applications and case management for high-risk dental patients in community settings. These dental professionals would identify high-risk patients and link them with a dental home. Case management has shown to be an effective way to reduce barrier to care for Medicaid recipients. It is the practice of educating families and patients, motivating them to seek care and following them for referral for definitive treatment in a dental home (Silverman, Douglass & Graham, 2013). Connection to a dental home ensures that children and high-risk adults will have access to comprehensive care as well as maximum exposure to preventive services. The proposed model would depend on reimbursement to the collaborative dental offices for outreach services with the hope, over time, to demonstrate lower caries rates, linkage to dental homes, and lower costs to Medicaid and other third parties for this population. The pilot is set to take place in a rural dental office with a relatively higher Medicaid population, a community health center, a federally qualified health center, and/or pediatric dental practice. If the model proves successful in meeting its goals, Medicaid programs and other third-party reimbursement sources will be better able to make evidenced-based decisions regarding reimbursement for these services; specifically, case management. The North Dakota Dental Association reports that the model may be implemented in late 2014 or early 2015.

PROPOSED MODEL	BRIEF DESCRIPTION
15. Apple Tree Dental **[Access to Care]**	Apple Tree's nonprofit status and mobile delivery programs work to bring care directly to people who need it most through support from individual donors, foundation grants, and corporate sponsors. Supported financially under the Mayo Clinic model, Apple Tree Dental employs a hub and spoke system to provide care in locations of need. Apple Tree uses new and existing provider types and telehealth technology to provide oral health care. Apple Tree Dental relies on the use of advanced/dental therapists to provide affordable care in community settings. In 1997, Apple Tree Dental opened a dental clinic in Hawley, Minnesota through foundation dollars. For 17 years, that center has been self-sustaining serving 24,740 patients and providing 198,355 dental visits at a dental care value of $32,299,832. The Hawley clinic has also billed $438,000 to North Dakota Medicaid. Apple Tree could work with the private dental community and its professional organizations, community health centers, and legislators and government stakeholders to expand private, public, and nonprofit capacity for community based collaborative practice.
16. Increased Medicaid reimbursement **[Dental Insurance]**	Federal law requires state Medicaid programs to provide dental benefits for children, but not adults. North Dakota's Medicaid program covers adult dental care for the categorically and/or medically needy. Health care providers may refuse to provide care for Medicaid patients if the rates are lower than private insurance patients, creating access to care issues. The overall reimbursement rate, as defined by the amount paid divided by the amount billed over a five year period in North Dakota is roughly 62%; nationally, North Dakota has one of the highest dental reimbursement rates; however, it is still below the cost of care for dental providers. Research has shown that states with higher Medicaid reimbursement rates have an increased number of dental providers who accept Medicaid patients. North Dakota Medicaid data has not always shown the same results.
17. Eliminate Long Term Care Per-Resident Fee: Make Allowable Cost **[Dental Insurance]**	Many long term care (LTC) facilities rely on dental services provided by outside/nonprofit organizations who provide services in the LTC facilities. However some, like Apple Tree Dental out of Minnesota, require an extra facility fee outside of billing insurance. An alternative would be to work with federal Medicare/Medicaid to identify an allowable cost for dental services provided to residents of LTC facilities and/or allocate state funding to LTC facilities to cover the per-resident/per-facility fee that currently limits utilization of an otherwise very successful and beneficial oral health service for the aging population.

PROPOSED MODEL	BRIEF DESCRIPTION
18. Expand Loan Repayment Programs **[Workforce]**	Between 2008 and 2014, 34 students applied for the various state loan repayment programs and did not receive awards because of limited dollars. If the state were to consolidate the loan repayment options, creating consistent and clear guidelines and payment between the various programs, along with increased dollars from the state to allow for more awards, North Dakota could bring more new graduates back into the state, specifically rural communities, to practice dentistry. Under this model, state entities would work together to develop a comprehensive student loan repayment program in which the various programs discussed in the complete report would be managed by one entity, allowing for clarity in what is currently a very confusing system. In addition, the largest repayment program covers only $80,000 of a student's debt while the average debt of a dental student is $241,000 – a rate that may be much higher for those without an in-state option (American Student Dental Association (Dental Student Debt), 2014). While additional dollars could increase the repayment each awarded student receives, adding additional dollars to award more loan repayments would bring more dentists to North Dakota.
19. Integration of Oral Health and Primary Care **[Prevention]**	The goal is to facilitate change in the clinical practice of primary care practitioners in safety-net and other settings by expanding the oral health clinical competency of primary care clinicians and improve access to early detection and preventive intervention. For example, most children are exposed to medical care but not dental care at an early age. Primary care medical providers have the opportunity to play an important role in helping children and their families gain access to preventive services and helped to receive access to dental care. Oral health has been successfully integrated into primary care in several community health centers throughout the U.S., including Neighborcare Health in Seattle Washington and the Marshfield Clinic in Wisconsin. Community health centers are in a better position to overcome the problems associated with the historical separation of medical and dental care because they are engaged in the delivery of both types of services. CMS is also working to ensure that oral health is included in Medicaid's medical home initiative and the Accountable Care Organization demonstration as required by the Affordable Care Act. Among the challenges faced in implementing these new models are identifying successful models and establishing reimbursement mechanisms to support integrated oral health and primary care.

PROPOSED MODEL	BRIEF DESCRIPTION
20. Collaborate with Border Dental Schools for North Dakota Student "Spots" and In-State Rotations **[Workforce]**	Work with bordering dental schools to identify opportunities for student rotations in North Dakota and to encourage student enrollment in said programs through financial assistance/reserved spots. An opportunity may be the University of Minnesota's (UMN) Early Decision Rural Dentistry Track Program. Dean Leon Assael and Chief Administrative Officer Jeff Ogden have each expressed their willingness to work and partner with North Dakota offices and expand their rural track program to include North Dakota rural communities. The program recruits dental students early on in college and sets them up with a faculty mentor who is practicing in a rural community. The UMN School of Dentistry just submitted a formal request to the Minnesota legislature for appropriated funds to support the program, including funds to support capital and operating costs. The requested funds will also bridge the gap created by the greater mix of the rural population covered through public programs. This specifically addressed the difference between the cost of services provided and public program coverage for specific procedures and care. Jeff Ogden, CAO at Minnesota's School of Dentistry expressed interest in allowing North Dakota students to obtain reduced tuition rates in return for North Dakota's assistance in funding training sites for dental students participating in the rural track. As mentioned, this model would require North Dakota to provide funding to support dental rotations and staffing for rural dental clinics (existing and/or non).
21. Free Transportation to Transport Rural or other Geographically Challenged Individuals to Current Dental Practices **[Access to Care]**	Work with existing programs to transport populations in need to their dental appointments. Most models that exist work with aging populations, but this option could be explored for all populations of need, including tribal populations. Examples of programs currently in place include the following: The North Dakota Senior Service Providers; The National Center on Senior Transportation; Disability Resource-LINK page; and The Non-Emergency Medical Transportation (NEMT). State dollars could be allocated to existing service providers to expand their scope of transportation to include additional population groups and/or transportation to dental care providers.

PROPOSED MODEL	BRIEF DESCRIPTION
22. Increased Funding and Reach of The Seal! North Dakota Program to Include Use of Expanded Dental Hygienists Scope of Work, Case Management, and Medicaid Reimbursement **[Prevention]**	Expand services of Seal! North Dakota to reach all schools in North Dakota. This model would rely on dental hygienists completing the oral health screens, sealants, and education in the school systems, utilizing their most recent expansion to their scope of practice. These hygienists would be under standing orders of a private practice dentist, and not solely public health hygienists. To guarantee that the students would continue to utilize oral health services, and not rely solely on the applied sealants, the hygienists would be trained in case management as proposed under the North Dakota Dental Association's Case Management Model. Dental hygienists would then refer the students to the nearest and most appropriate dental home. To make this a sustainable model, Medicaid would have to expand to cover services provided off-site by dental hygienists under the standing order of a practicing dentist. Additionally, it would need to cover case management/referral which it currently does not. If these services were reimbursed through Medicaid and other third party insurers, Seal! North Dakota services could be provided by private practices and other safety-net clinics. The program would be made sustainable through billing Medicaid and other insurers as appropriate for sealants, case management, and other preventive services.
23. Expand Safety-Net Clinics – Use Models/Ideas/Support from Nonprofits **[Access to Care]**	Stakeholders identified a model that would blend some of those already discussed to include general expansion, expansion in the West, and funding of nonprofits to provide oral health services. While the group did not feel strongly about solely seeking support for Apple Tree Dental or Children's Dental Services, they liked the idea of working with the state to allocate dollars to support hub-and-spoke services and nonprofits in North Dakota. This would include working with possible out-of-state nonprofits to reach populations in need. This would also include growth of the safety-net clinics in North Dakota and financial support for other nonprofit oral health providers. This proposed model suggested creating a program and financial support to encourage teledentisry and hub-and-spoke services as outlined above.
24. Create a System to Promote Dentistry as a Profession in North Dakota **[Workforce]**	Create a comprehensive system of promoting dental education among North Dakota residents, and encourage dental practice in the state. While consolidation of the loan repayment programs, and increased dollars and awards would bring more dental school graduates back to North Dakota to practice dentistry, this alone does not address the low number of North Dakota residents that pursue a degree in dentistry. Because of this, stakeholders discussed a more comprehensive model in which the state supports dental students upon admission, and follow through by brining dental graduates back into the state through dental rotations and expansion of the loan repayments. The stakeholders proposed working with dental schools to identify those willing to hold spots for North Dakota residents – this would require North Dakota dollars. Again, while stakeholders were not concerned about which dental schools were to partner with the state, the University of Minnesota School of Dentistry Rural Track Program serves as an example. Read more in Chapter IV of the complete report. There is a need to work with interested schools of dentistry to have students complete their dental rotations in North Dakota. The dollar amount to host a dental student from an out-of-state university while completing their rotation is not yet known and would vary by university and location, but it would require North Dakota allocation of funds.

Limitations

The Center for Rural Health acknowledges that the policy process is complex and that many come to it with previous experience, relationships, and knowledge. While the CRH stakeholder process was inclusive, objective, and transparent, the CRH cannot guarantee that the final stakeholder recommendations were based exclusively on the information shared and the discussions held during stakeholder meetings. In fact, the stakeholders were selected because of their involvement in providing oral health care to the North Dakota population. Thus, while various groups with their points of view may have lobbied stakeholder group members, CRH staff remain confident that the stakeholders had extensive experience with North Dakota's oral health issues frequently dealing with all involved groups. Stakeholder and input group members' involvement in in this project is greatly appreciated and the CRH respects their integrity.

Another limitation is the timeline in which this report was completed. Funded in early June 2014, the report was to be developed along with stakeholder recommendations by the end of August with the intent to inform the Health Services Interim Committee. In that period of time, the CRH worked to identify stakeholder and input members, completed research on the needs and proposed models, and facilitated five stakeholder meetings to develop the priorities for the state. While the stakeholders were well versed in oral health initiatives and various proposed models, a more generous timeline would have allowed for a more thorough review, understanding, and description of each proposed model. As a result, the CRH will continue to explore the proposed models, along with state oral health data, in an effort to continue to inform the oral health efforts of the state. Specifically, the CRH staff members are currently reviewing dentist and dental hygienist workforce survey data and CMS utilization reports. An amended version of the full report and this executive summary will be issued just before the next North Dakota Legislative session in January 2014.

Much more information on North Dakota's oral health and care is available in the report that this executive summary depicts. This information is available at the following web address: ruralhealth.und.edu/projects/nd-oral-health-assessment. The complete report also offers a thorough discussion of all current oral health programs and initiatives in North Dakota, listed in Appendix C.

APPENDIX A

Figures and Tables to Support List of Oral Health Needs in the State

Figure 1. Rural/Urban Disparities in Oral Health among North Dakota Third Grade Students, 2010

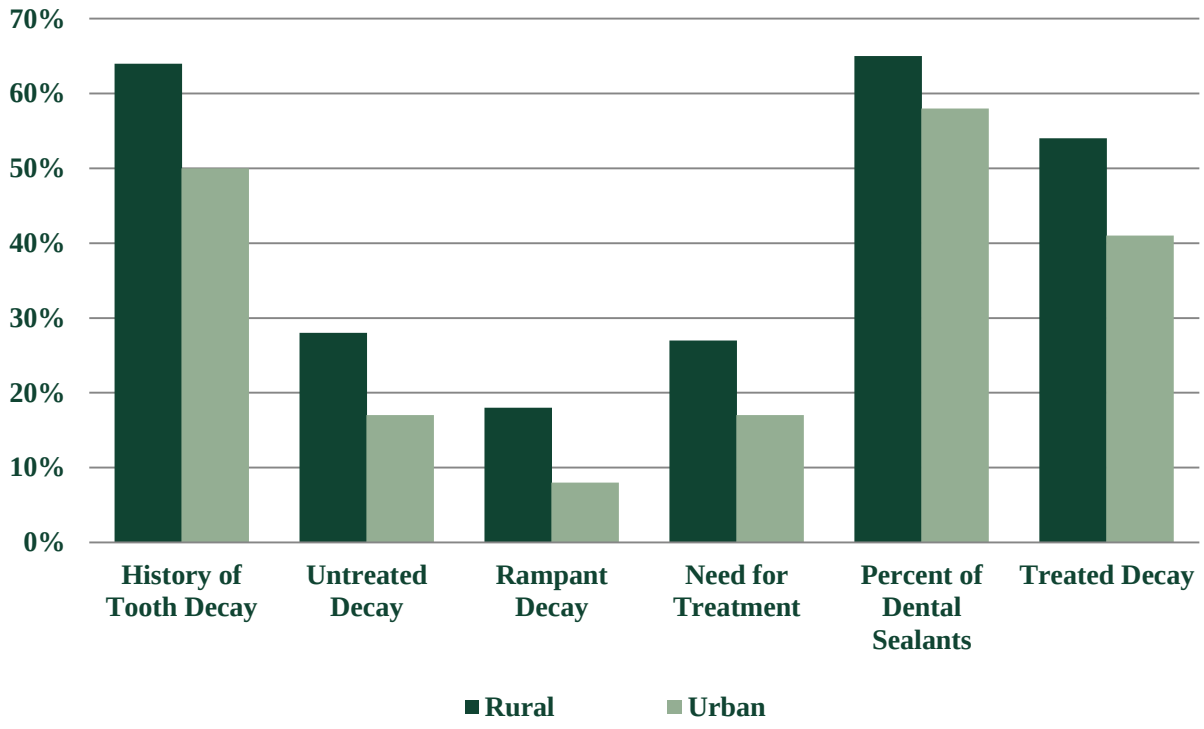


Figure 2. Racial Disparities in Oral Health among North Dakota Third Grade Students, 2010

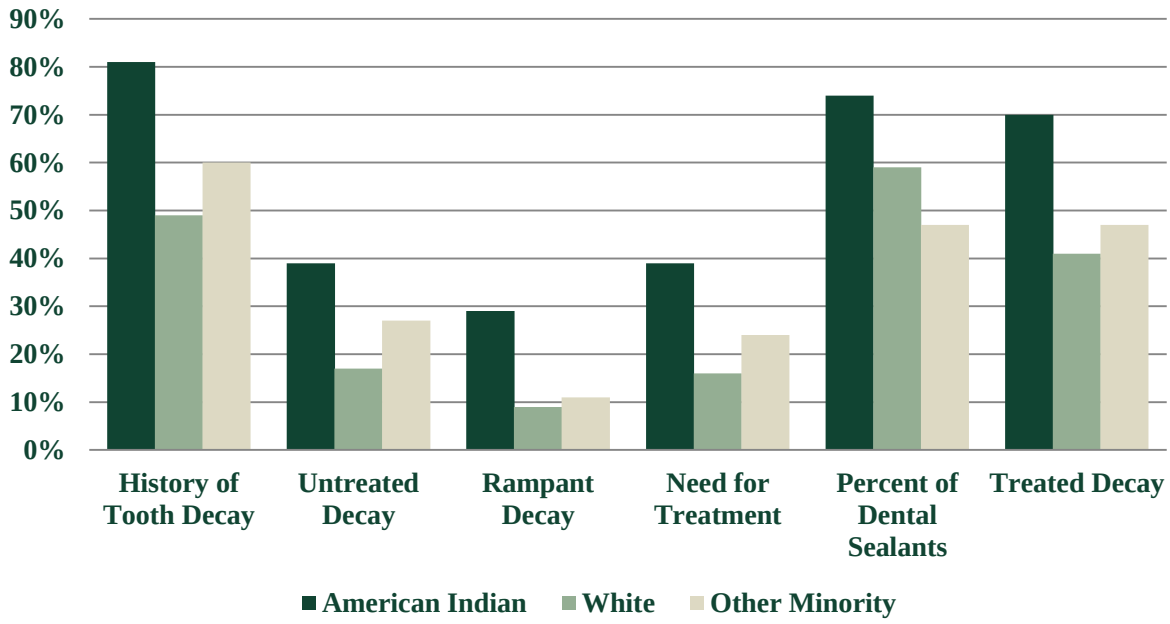
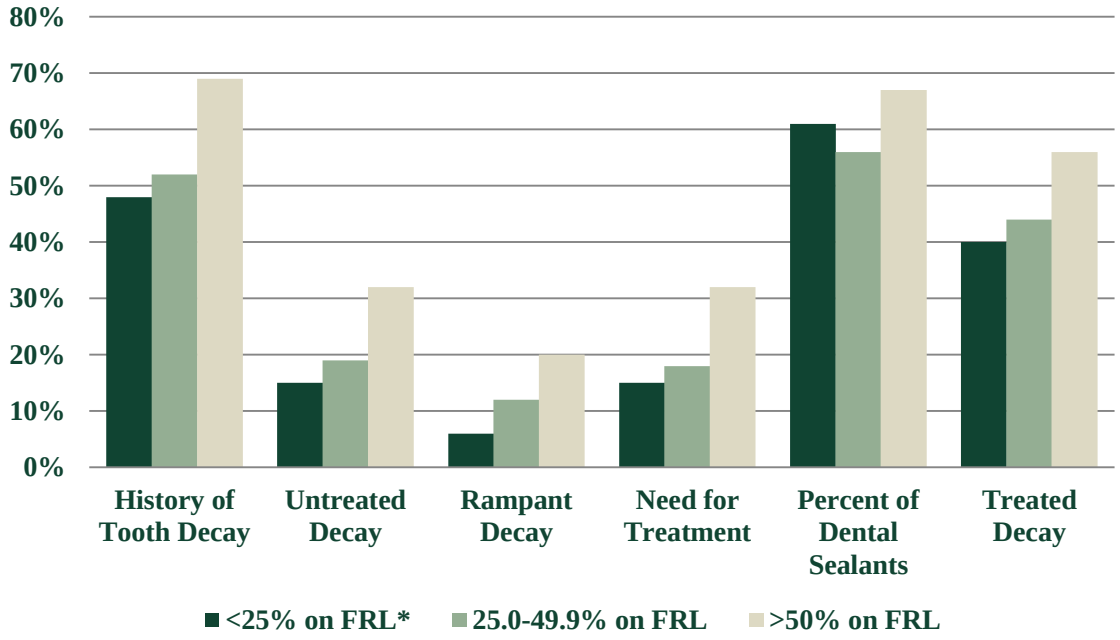


Figure 3. Economic Disparities in Oral Health among North Dakota Third Grade Students, 2010



* *FRL* = Free and Reduced Lunch Program

Figure 4. Percent of Medicaid-Enrolled Children with a Dental Visit in Last Calendar Year, 2010-2013

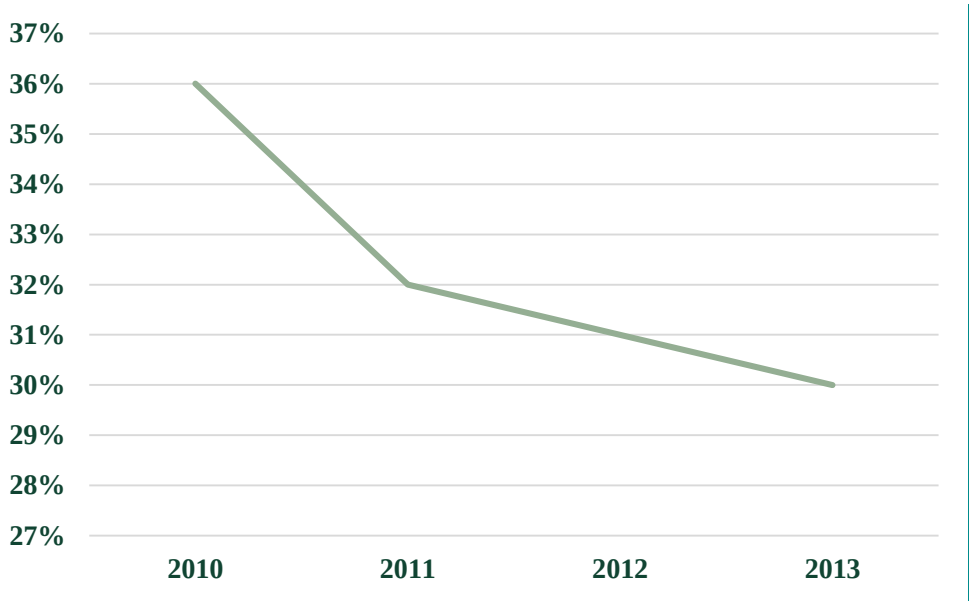


Figure 5. Number of Medicaid Recipients Seen by North Dakota Dental Practices Billing Medicaid, 2013

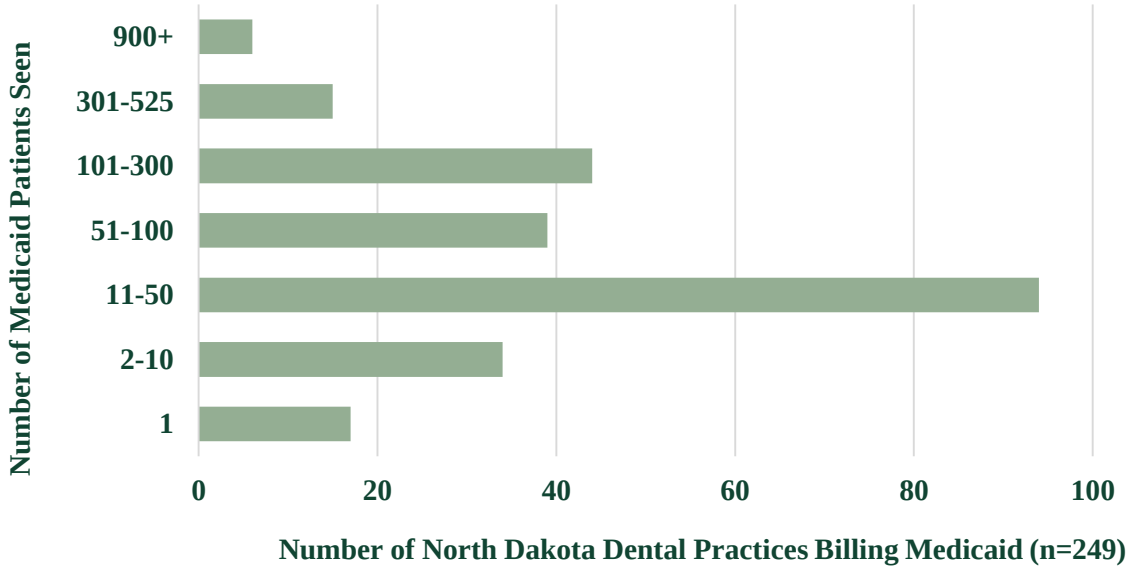


Table 1. Number and Percent of Patients Served by Dental Practices Billing Medicaid, 2013*

Number of Medicaid Recipients Seen in Calendar Year	Number of Dental Practices	Cumulative Percent of Medicaid Patients that Saw a Dentist*
900+	6	30%
301-525	15	52%
101-300	44	79%
51-100	39	90%
2-10	94	100%**
11-50	34	100%**
1	17	100%**

*Percent is based on the total number of dental practices *that had billed Medicaid*, not total dental practices

**Less than 1%

Figure 6. Number of Dentists in North Dakota Counties, 2014

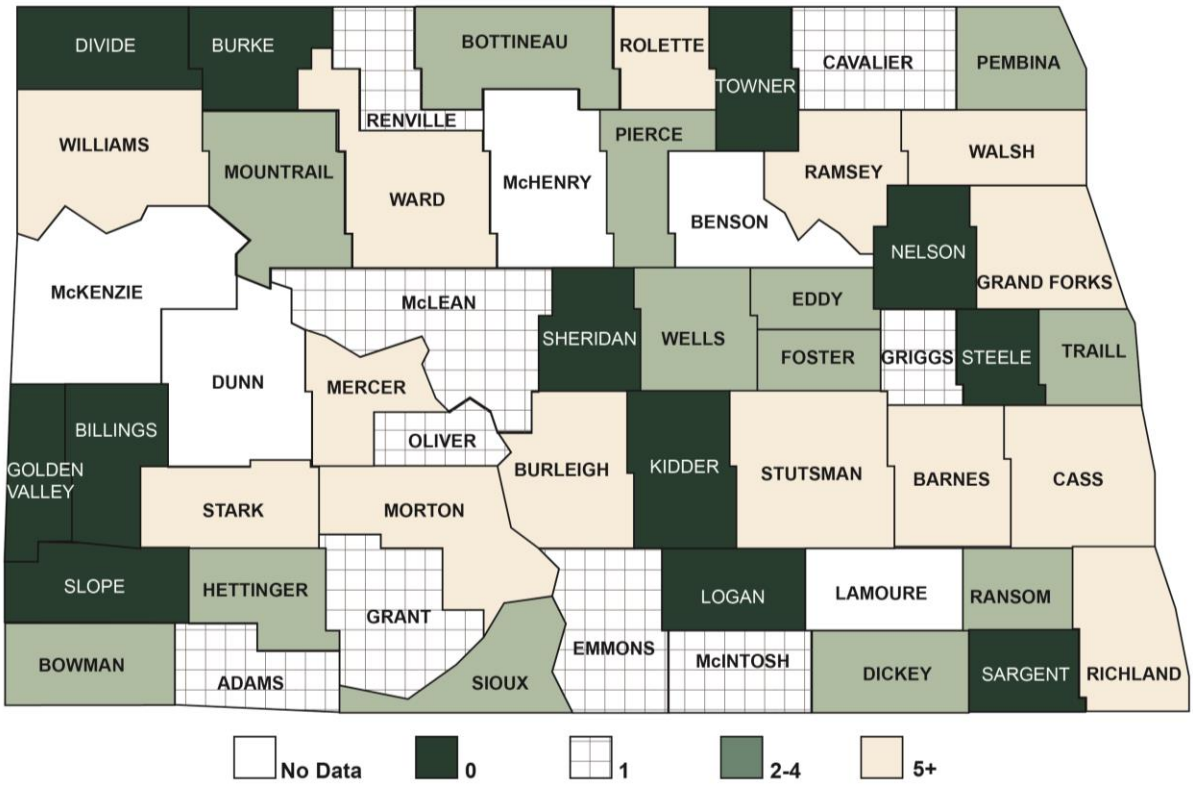
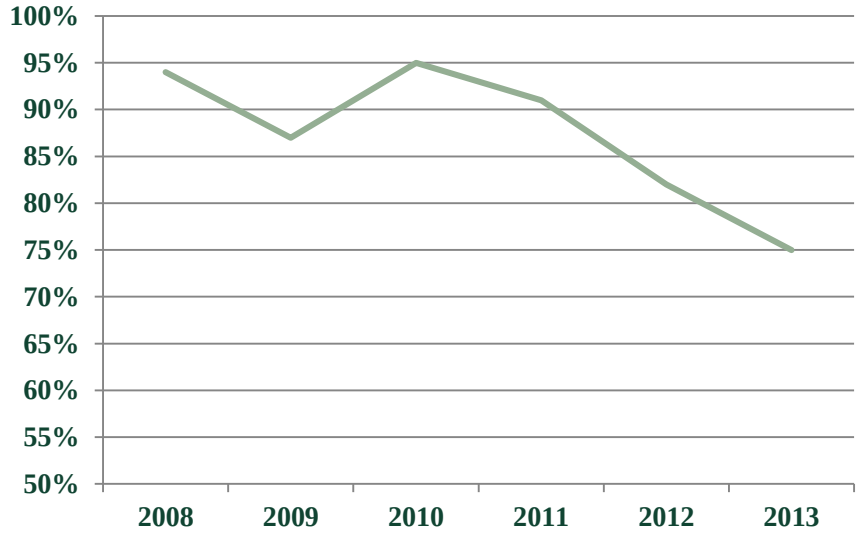


Figure 7. Percent of North Dakota Head Start Children Needing Treatment who Received Treatment



APPENDIX B

North Dakota Oral Health Stakeholder Working Group

- Blue Cross Blue Shield of North Dakota (Private Insurer)
- Chamber of Commerce/Statewide Vision and Strategy Committee
- Community Healthcare Association of the Dakotas
- Developmental Homes
- Family HealthCare
- Family Voices of North Dakota
- Fargo Public Schools
- Long Term Care Association of North Dakota
- North Dakota AARP
- North Dakota Association of Community Providers
- North Dakota Department of Health, Oral Health Program
- North Dakota Disabilities Advocacy Consortium
- North Dakota Head Start Association
- North Dakota Indian Affairs Commission
- Sanford Bismarck Emergency and Trauma Center
- Third Street Clinic

North Dakota Oral Health Input Group (* Spoke at a Stakeholder Meeting)

- American Academy of Pediatrics, North Dakota Chapter
- American College of Emergency Physicians, North Dakota Chapter
- Blue Cross Blue Shield of North Dakota
- Bridging the Dental Gap*
- Cankdeska Cikana Community College (Tribal College)
- Consensus Council
- Grand Forks Public Health Department*
- Kalix
- North Dakota Academy of General Dentistry
- North Dakota Association of Counties
- North Dakota Dental Assistants Association
- North Dakota Dental Association**
- North Dakota Dental Hygienists' Association*
- North Dakota Department of Health, Health Equity Office
- North Dakota Department of Health
- North Dakota Department of Human Services
- North Dakota Department of Public Instruction
- North Dakota Health Information Network
- North Dakota Hospital Association
- North Dakota Oral Health Coalition*
- North Dakota Public Health Association*
- North Dakota Board of Dental Examiners
- North Dakota State College of Science
- North Dakota State Council on Developmental Disabilities
- North Dakota Women and Infants and Children (WIC)
- Valley Community Health Center*

National Content Experts

- Children's Dental Services; Sarah Wovcha, Executive Director
- University of Minnesota School of Dentistry; Dr. Leon Assael, Dean
- Dental Health Aide Therapist Educational Program, Alaska; Dr. Mary Williard, Director
- Apple Tree Dental; Dr. Michael Helgeson, CEO

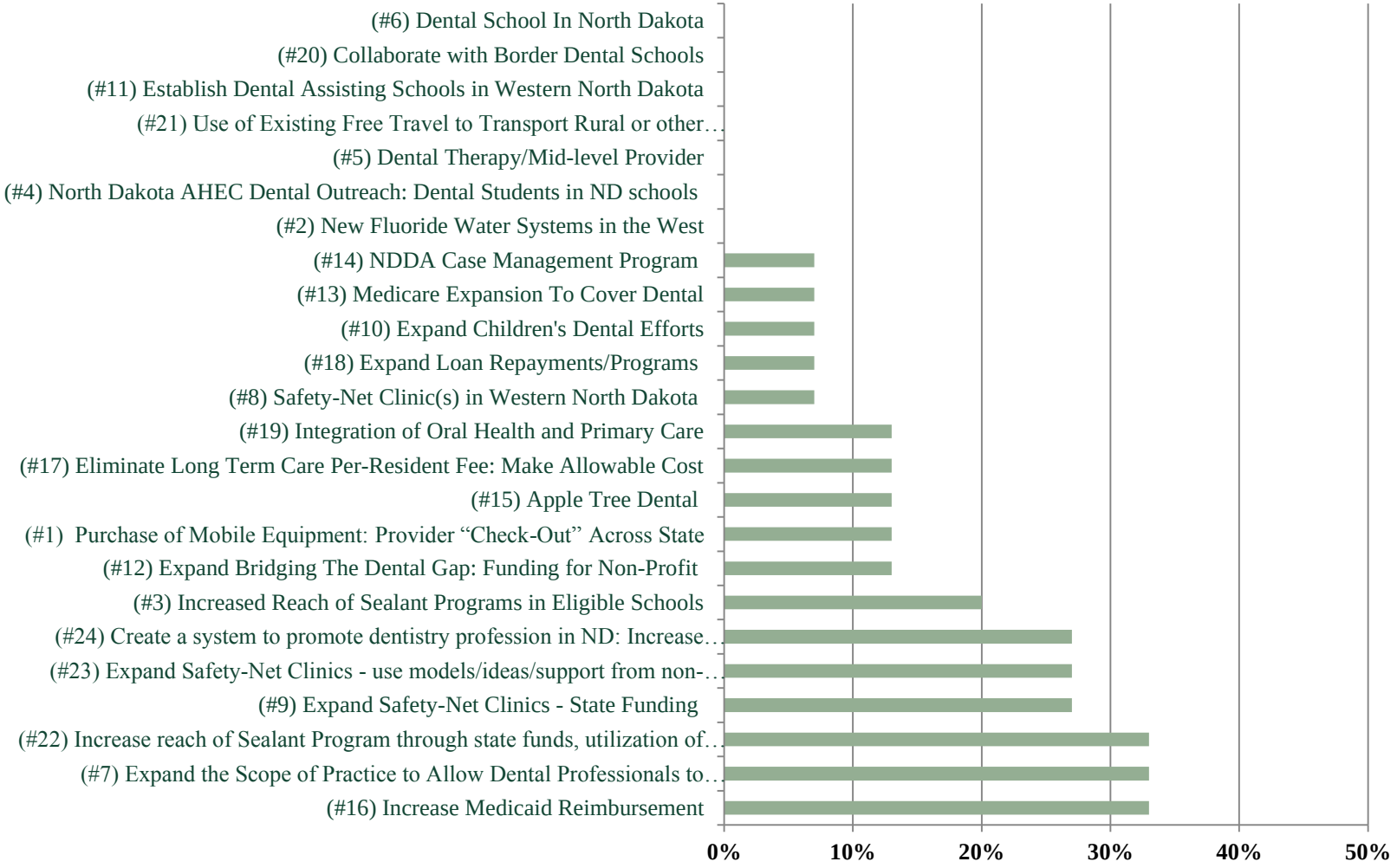
APPENDIX C
CURRENT NORTH DAKOTA ORAL HEALTH PROGRAMS, 2014

Prior to identifying solutions to meet the identified oral health needs in North Dakota, the Center for Rural Health, with assistance from the stakeholder and input members, identified and described current state oral health programs and initiatives.

Current Oral Health Programs in North Dakota, 2014:

Bridging the Dental Gap
Children's Dental Services
Children's Special Health Services
Dental Loan Repayments/Grants
Donated Dental Services Program
Drinking Water Program (Fluoride)
Elderly Care Direct Services Program
Federally Qualified Health Centers
Head Start Dental Home Initiative
Healthy Steps (CHIP)
ND DoH Oral Health Program
North Dakota Health Tracks
North Dakota Oral Health Coalition
North Dakota State College of Science Cleaning Program
Public Health Oral Health Care Resolution
Red River Region Community Dental Access Committee
Red River Valley Dental Access Project
Ronald McDonald Care Mobile
Seal! North Dakota
Third Street Clinic
Tribal Pediatric Dental Days
Varnish North Dakota!

APPENDIX D
PERCENT OF STAKEHOLDERS INDICATING EACH MODEL AS ONE OF THEIR TOP THREE PRIORITIES, 2014



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[i] Basic Screening Survey (BSS) for Children Attending Third-Grade. (2014). Data provided by the North Dakota Department of Health, Oral Health Program.

[ii] ibid

[iii] US DHHS CMS. (2014). Medicaid Claims data: North Dakota oral health indicators. Provided by the North Dakota Department of Health and Human Services.

[iv] ibid

[v] ibid

[vi] ibid

[vii] ibid

[viii] North Dakota Board of Dental Examiners & North Dakota Department of Health. (2009-2013). Licensure Workforce Survey Results.

[ix] US DHHS CMS. (2014). Medicaid Claims data: North Dakota oral health indicators. Provided by the North Dakota Department of Health and Human Services.

[x] United Sates Department of Health and Human Services (US DHHS) Centers for Medicare & Medicaid Services (CMS). (2014). Medicaid Claims data: North Dakota oral health indicators. Provided by the North Dakota Department of Health and Human Services.

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[xiii] North Dakota Board of Dental Examiners. (2013). Licensure Data.

[xiv] Robert Wood Johnson Foundation. (2014). County Health Rankings & Roadmaps: North Dakota Dentists. Retrieved from: http://www.countyhealthrankings.org/app/north-dakota/2013/measure/factors/88/data?sort=sort-0.

[xv] North Dakota Board of Dental Examiners & North Dakota Department of Health. (2009-2013). Licensure Workforce Survey Results.

[xvi] Head Start Program Information Report (PIR). (2011). Data Provided by North Dakota Department of Health, Oral Health Program. State Epidemiologist.

[xvii] Basic Screening Survey (BSS) for Children Attending Third-Grade. (2014). Data provided by the North Dakota Department of Health, Oral Health Program.