

# North Dakota Department of Health, Oral Health Program NOFO DP18-1810 Year Two Evaluation Report

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## List of Acronyms and Abbreviations

<b>AFS</b>	American Fluoridation Society
<b>AI/AN</b>	American Indian/Alaska native
<b>ASTDD</b>	Association of State and Territorial Dental Directors
<b>BSS</b>	Basic Screening Survey
<b>CDC</b>	Centers for Disease Control and Prevention
<b>CRH</b>	Center for Rural Health
<b>CSTE</b>	Council of State and Territorial Epidemiologists
<b>CWF</b>	Community Water Fluoridation
<b>DMD</b>	Doctor of Medicine in Dentistry
<b>DWP</b>	Drinking Water Program
<b>DWSRF</b>	Drinking Water State Revolving Fund
<b>EARWF</b>	Environmental and Administrative Recommendations for Water Fluoridation
<b>FLO</b>	Fluoridation Learning Online
<b>FQHC</b>	Federally Qualified Health Center
<b>MOU</b>	Memorandum of Understanding
<b>MS</b>	Master of Science
<b>NDDA</b>	North Dakota Dental Association
<b>NDDoH</b>	North Dakota Department of Health
<b>NDOHSS</b>	North Dakota Oral Health Surveillance System
<b>NOFO</b>	Notice of Funding Opportunity
<b>NQ</b>	Non-qualifying
<b>OHP</b>	Oral Health Program
<b>OHSS</b>	Oral Health Surveillance System
<b>PCO</b>	Primary Care Office
<b>PE</b>	Professional Engineer
<b>PHH</b>	Public Health Hygienist
<b>PI</b>	Principal Investigator
<b>PRAMS</b>	Pregnancy Risk Assessment Monitoring Survey
<b>Q</b>	Qualifying
<b>SEAL!ND</b>	Name of the North Dakota School-based dental sealant program
<b>WIC</b>	Women, Infants and Children
<b>WFRS</b>	Water Fluoridation Reporting System

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## Executive Summary

The Mission of the North Dakota Department of Health Oral Health Program (NDDoH OHP) is “to improve the oral health of all North Dakotans through prevention and education.” In order to achieve this mission, the OHP has a primary goal of preventing and reducing oral disease by:

- Promoting the use of innovative and cost-effective approaches for oral health promotion and disease prevention.
- Fostering community and statewide partnerships to promote oral health and improve access to dental care.
- Increasing awareness of the importance of preventive oral health care.
- Identifying and reducing oral health disparities among specific population groups.
- Facilitating the transfer of new research into practice.

Funding from Centers for Disease Control and Prevention (CDC), State Actions to Improve Oral Health Outcomes enables the OHP to implement additional oral health promotion and prevention activities that address targeted need within the state. Specifically, component one of this five-year grant (funding beginning September 1, 2018), addresses oral health disparities by both:

- Maintaining the existing public health capacity among the OHP, and
- Identifying, implementing, evaluating, and disseminating best practices for oral health promotion and disease prevention among vulnerable populations, including low-income (Medicaid), rural, underserved, American Indian/Alaska native (AI/AN), and special needs populations.

### Key Program Components and Strategies

The OHP has proposed to use this funding award (component one) to support:

1. Reach of SEAL!ND (the school-based dental sealant program).
2. Community water fluoridation (CWF).
3. Statewide oral health surveillance.

### Evaluation Methods and Analysis

The evaluation was conducted, under a subcontract with the NDDoH OHP, by staff and faculty at the [Center for Rural Health](#),<sup>a</sup> located at the [University of North Dakota School of Medicine & Health Sciences](#).<sup>b</sup> The evaluation team worked closely with the OHP to develop the assessment tools, and to identify a timeline as well as team roles. All of the evaluation activities were submitted to, and approved by, the [University of North Dakota Institutional Review Board](#).<sup>c</sup>

To measure reach of the school-based dental sealant program (SEAL!ND) the evaluation team surveyed participating schools, interviewed OHP team members and additional stakeholders, and reviewed student data collected at the time the dental screening.

To assess the efficacy of CWF activities, the evaluation team interviewed OHP staff members, reviewed policies and training on CWF, surveyed community water operators, and developed evaluation tools to assess any training on the topic of water fluoridation. To assess the data surveillance plan, the evaluation team reviewed data collection procedures, interviewed OHP staff and leadership, and reviewed all dissemination materials utilized to share oral health data.

## Evaluation Purpose and Dissemination Plan

The evaluation activities were intended to inform the granting agency (CDC) of the progress made and any noted barriers experienced by the OHP in working to achieve the goals set forth. However, the CRH also agreed to develop additional evaluation products to meet the needs of diverse audiences. For example, the evaluation team will develop a comprehensive SEAL!ND report that will include progress made utilizing both funds from this award as well as other federal grants and private practice dental clinics that provide school-based dental sealant services. The larger report has also been summarized into an infographic and two briefs. The OHP team in partnership with the evaluators will present results of the program at state and national conferences. Evaluation occurred in real-time, also providing the OHP and evaluation team the opportunity to discuss any needed work plan adjustments. Real-time results of the evaluation assist the team as they prepare future grant activities. Dissemination products developed in this grant year are [available online](#).<sup>d</sup>

## Key Findings

- During the 2019-2020 school year, 84 schools participated in SEAL!ND. However, not all of these schools received services through the NDDoH OHP and only 53 of those 84 schools met the criteria of high-risk, reporting at least 45% of their students enrolled in the free and reduced-fee school lunch program.
- 2,387 students received an oral health screening.
- Roughly 42% of those screened received a dental sealant; 4,361 teeth were sealed. The NDDoH PHH sealed 1,156 of those teeth.
- In the two years prior, 51.5% and 49.2% of students presented with untreated decay respectively compared to only 31% in the current school year.
- School personnel were satisfied with the program but wanted assistance with securing consent of parents and managing the time it takes to provide oral health screens at the school.
- 95.8% percent of the population served by public water systems receive optimally fluoridated water (0.7 mg/L) in North Dakota, exceeding the Healthy People 2020 objective of 79.6%.
- Eleven posters, presentations, and facts sheets were developed to disseminate oral health surveillance data and evaluation results.

## Recommendations

- Prepare manuals and templates for participating schools and dental offices to make participation relatively effortless. This would include template consent letters, information on billing, and pre-written promotional materials, all of which would be available online.
- Develop a list of dental offices throughout the state willing to see pediatric Medicaid patients.
- Develop training for water operators on water fluoridation guidelines and recommendations, and the importance and health impact of water fluoridation. Increase their utilization of the CDC's Fluoridation Learning Online (FLO) training course.
- Revise the web-version of the North Dakota Oral Health Surveillance System (NDOHSS) to be user friendly and provide visual presentation of longitudinal data when possible. Integrate data collected as part of the OHP evaluation into the OHSS.
- Produce infographics and factsheets for various datasets in order to share oral health success stories and oral health inequities, and develop a strong communication strategy for disseminating developed products.

## Program Description

The mission of the [North Dakota Department of Health \(NDDoH\)](#)<sup>e</sup> is to “improve the length and quality of life for all North Dakotans.” The NDDoH is committed to: improving the health status of the people of North Dakota; improving access to and delivery of quality health care and wellness services; promoting a state of emergency readiness and response; achieving strategic outcomes using all available resources; strengthening and sustaining stakeholder engagement and collaboration; and managing emerging public health challenges.<sup>f</sup> The [NDDoH Oral Health Program \(OHP\)](#)<sup>g</sup> is located within section two, healthy and safe communities under the [Division of Health Promotion](#).<sup>h</sup> See Appendix A for the organizational chart.

The Mission of the NDDoH OHP is “to improve the oral health of all North Dakotans through prevention and education.” In order to achieve this mission, the OHP has a primary goal of preventing and reducing oral disease by:

- Promoting the use of innovative and cost-effective approaches for oral health promotion and disease prevention.
- Fostering community and statewide partnerships to promote oral health and improve access to dental care.
- Increasing awareness of the importance of preventive oral health care.
- Identifying and reducing oral health disparities among specific population groups.
- Facilitating the transfer of new research into practice.

Funding from Centers for Disease Control and Prevention (CDC), State Actions to Improve Oral Health Outcomes enables the OHP to implement additional oral health promotion and prevention activities addressing targeted need within the state. Specifically, component one addresses oral health disparities by both: (1) maintaining the existing public health capacity among the OHP, and (2) identifying, implementing, evaluating, and disseminating best practices for oral health promotion and disease prevention among vulnerable populations, including low-income (Medicaid), rural, underserved, American Indian/Alaska native (AI/AN), and special needs populations.

### Key Program Components and Strategies

The OHP has proposed to use this funding award (component one) to support:

1. Reach of SEAL!ND (the school-based dental sealant program).
2. Community water fluoridation.
3. Statewide oral health surveillance.

### SEAL!ND: School-Based Dental Sealant Program

The OHP has an established [school-based dental sealant program](#)<sup>i</sup> (SEAL!ND) which has been providing fluoride varnish and dental sealants to students throughout North Dakota since 2012. Under this funding, the OHP continues to administer SEAL!ND specifically among schools with 45% or greater of their students enrolled in the free and reduced-fee school lunch program. At the time of the initial CDC award, the SEAL!ND program was offered in 29 of 136 eligible schools primarily located in rural areas. The goal has been to expand the number of participating schools by 5% annually.

The OHP Prevention Coordinator identifies eligible schools utilizing the [North Dakota Department of Public Instruction's](#)<sup>j</sup> data for students enrolled in the free and reduced-fee lunch program. The coordinator then provides educational materials to school administrators, staff, and parents on the benefits of dental sealants, inviting participation in the program. Oral health services provided in participating schools, to include dental screenings, fluoride varnish application, sealant application, oral

health education, and dental referral, are completed by either the PHH employed by the NDDoH OHP and supervised by one private practice dentist, or by dental team members who have partnered with the NDDoH. These partners include private practice dental teams as well as FQHCs.

Although this particular CDC grant funds dental services provided only in qualifying schools, the program has established sustainability by coordinating SEAL!ND throughout the state. The NDDoH Prevention Coordinator coordinates SEAL!ND throughout North Dakota by providing oversight, scheduling, materials, and manuals for both schools and dental teams alike. In the last school year, the Prevention Coordinator assisted in implementing SEAL!ND in 28 additional schools that did not qualify for services under this grant.

### Community Water Fluoridation

The water fluoridation program began in the 1950s and roughly 96.5% of the state population that are on public water systems receive optimally fluoridated water (0.7 mg/L), thereby exceeding the Healthy People 2020 objective of 79.6%. To maintain this success, the OHP has a Memorandum of Understanding (MOU) with the [Drinking Water Program \(DWP\)](#)<sup>k</sup> which is located within the NDDoH, [Division of Municipal Facilities](#).<sup>l</sup> The MOU ensures the OHP has access to information, reports, and expertise regarding the state's water fluoridation program and that the fluoridation coordinator is part of the task force that addresses fluoridation issues, concerns, and challenges. The fluoridation coordinator oversees the fluoridation program and compiles and maintains a list of all fluoridated water systems in the state along with a list of all consecutive systems that purchase water from fluoridated water systems. Activities include an assessment to identify aging fluoridation equipment, equipment lifespan, replacement costs, and training needs. A portion of funds are intended to be utilized to provide mini-grants to those community water systems identified as needing new fluoridation equipment.

### Statewide Oral Health Surveillance

The purpose of the statewide oral health surveillance is to develop and execute a detailed plan for data collection, analyses, and dissemination. These activities include tracking the recommended core indicators, as identified by the [Council of State and Territorial Epidemiologists \(CSTE\)](#).<sup>m</sup> Additionally, the OHP conducted an oral health basic screening survey (BSS) among kindergarteners in 2018-2019 and will conduct another among third grade students during the 2021-2022 school year in accordance with [Association of State and Territorial Dental Directors \(ASTDD\) guidelines](#).<sup>n</sup> The date of the third grade BSS is contingent on school plans given the current global health pandemic. The [North Dakota Oral Health Surveillance System](#)<sup>o</sup> (NDOHSS) will also include a new indicator (dental care utilization during pregnancy) collected and analyzed by the [North Dakota Pregnancy Risk Assessment Monitoring System](#)<sup>p</sup> (PRAMS). Additionally, the OHP is working collaboratively with state [Medicaid](#),<sup>q</sup> the [Board of Dental Examiners](#),<sup>r</sup> the Primary Care Office (PCO), and the Center for Rural Health to collect dental provider workforce data. One year three product will include the *Oral Health in North Dakota Burden of Disease and Plan for the Future* to be published in 2020. This product had been a year two goal, but time was reprioritized in response to the global health pandemic.

## Evaluation and Stakeholder Engagement

The year two evaluation of component one as described above is being conducted by the Center for Rural Health (CRH) at the University of North Dakota, School of Medicine & Health Sciences under a subcontract with the OHP. The principal investigator (PI) of the evaluation ([Dr. Shawnda Schroder](#)),<sup>s</sup> in her role with the CRH, has been working collaboratively with the OHP and other oral health stakeholders for several years. Key stakeholders, including but not limited to, PHHs, all OHP program staff, water fluoridation leads, state epidemiologists, and the SEAL!ND program coordinator have all been consulted in the development of the evaluation plan and discussion around data collection strategies. In addition, the OHP team along with the evaluation team have developed evaluation dissemination strategies to include utilizing fact sheets, data reports, webinars, and both national and state conferences to share the results of the program and its associated evaluation. Key stakeholders both within the OHP and those receiving services as a result of this funding have participated in surveys, focus groups, and/or individual interviews to better inform the evaluation.

### Purpose of Evaluation

The evaluation, conducted by the CRH, is intended to firstly inform the granting agency (CDC) of the progress made, and noted barriers experienced, by the OHP in working to achieve the goals set forth. However, in addition to this technical evaluation report, the CRH has agreed to develop additional evaluation products to meet the needs of diverse audiences. For example, the evaluation team will develop a comprehensive SEAL!ND report that will include progress made utilizing both funds from this award, as well as other federal grants and private practice dental clinics that provide school-based dental sealant services. The larger report will also be summarized into at least one fact sheet and/or infographic, and the OHP team in partnership with the evaluators will present results of the program at state and national conferences. The conference presentations and one-page fact sheets/infographics are intended to not only highlight any success of the OHP, but to also share lessons learned, any identified evidence-based strategies, and barriers to implementing said initiatives.

Finally, evaluation will occur in real-time providing the OHP and evaluation team the opportunity to discuss any needed work plan adjustments. Real-time results of the evaluation will also assist in annual proposal review and submission as the team prepares for future grant activities.

### Evaluation Methods and Analysis

The evaluation was conducted, under a subcontract with the NDDoH OHP, by staff and faculty at the CRH. The CRH has faculty and staff with extensive experience in program planning and evaluation for local, county, state, federal, and international programs. They evaluate services on behalf of foundations, state government agencies, and a variety of federal agencies. The Center's evaluators have a wide network of contacts involved in rural health research across the country, as well as connections with key organizations and agencies within North Dakota. The PI of this evaluation is a Research Associate Professor, has conducted several statewide evaluations, and has been working in oral health research within North Dakota for over five years.

The evaluation team worked closely with the OHP to develop the assessment tools, and to identify a timeline as well as team roles. All of the following evaluation activities were submitted to, and approved by, the [University of North Dakota Institutional Review Board](#).<sup>c</sup> Following are the methods utilized to assess the OHP program's progress in meeting the goals specified in their work plan.



## SEAL!ND: School-Based Dental Sealant Program

To assess the impact of SEAL!ND, the evaluation team proposed tracking both process and outcome measures. Process measures included interviews with OHP staff, review of documentation and workflow related to the sealant program, and notes taken while attending workgroup calls with school-based dental sealant stakeholders.

### Process Evaluation

Process evaluation activities sought to answer questions like:

- Is SEAL!ND reaching the intended audience?
- Is there effective collaboration in SEAL!ND?
- What are significant changes that have been made to the program or workflow?
- What are barriers and challenges to achieving target outcomes?
  - a. How can those barriers and challenges be overcome?

### Outcome Evaluation

Outcome evaluation activities include review of student data provided by the participating schools and the PHH, sealant cost reports, and survey data. These activities sought to answer questions like:

- How many schools meet the eligibility criteria of 45% or more of students that participate in the free and reduced-fee lunch program?
- How many students were screened?
- How many/what percent of students received sealants?
- How many/what percent of students had untreated decay?
- How many/what percent of students were referred for treatment?
- How many/what percent of cavities were averted by placement of sealants?
- What was the avoided cost from cavity prevention?
- What percent of schools are satisfied with the program?
- What are the most common communication tools utilized among schools to reach parents?
- What are the most common barriers among schools participating in the program?

### School Survey

The CRH evaluation team sent electronic surveys, developed with the NDDoH OHP and approved by the University of North Dakota's Institution Review Board, to administrators or non-certified staff at every school participating in SEAL!ND, whether services were provided under this grant or by outside providers. The survey was designed to gauge the schools' experience with both SEAL!ND and dental providers, and to obtain data regarding challenges and barriers. See Appendix B for a copy of the survey tool.

### Patient Data

Site data for all students are compiled by the PHH that is employed under this grant, and by additional Federally Qualified Health Centers (FQHCs) and private providers with a MOU with the OHP. The data provide performance measures to calculate and demonstrate program outcomes. The data collected are analyzed by the program evaluators using methods that follow CDC-approved guidelines.

## Community Water Fluoridation

To assess the impact of CWF the evaluation team proposed tracking both process and outcome measures. Process measures included interviews with the OHP director and fluoridation coordinator, review of program documentation and workflow, and notes taken while attending workgroup calls with CWF stakeholders.

### Process Evaluation

Process evaluation activities sought to answer questions like:

- What are the challenges in sustaining optimally fluoridated water??
- What are key partners hearing among community members and water operators?
- What activities are necessary in the state to ensure optimally fluoridated water levels?
- Is there a state plan for community water fluoridation? If so, did the plan include diverse perspectives and address future activity?

### Outcome Evaluation

Outcome evaluation measures sought to assess the efficacy of training provided on the topic, the need for future education and training, and the community impact of fluoridated water systems. Evaluation activities sought to answer questions like:

- Are the monthly reported fluoride levels within the recommended range for water system levels as reported to WFRS?
- What percent of North Dakota residents are covered by fluoridated water systems?
- How effective are trainings on the topic of CWF?
- What type of outreach materials were developed and disseminated, and to which type of audiences?
- How many and what type of equipment was needed?
- How many and what type of equipment was replaced in partner municipal water systems?

The OHP coordinated with NDDoH, Division of Municipal Facilities to report administrative records of monthly water system fluoridation levels to the Water Fluoridation Reporting System (WFRS). The WFRS report generated by the fluoridation coordinator will be included in the cooperative agreement interim progress report. The DWP will continue to review and follow the Environmental and Administrative Recommendations for Water Fluoridation (EARWF) for program improvement, specifically, the number of systems that conduct split sampling. The EARWF tracking tool will be used as a guide in program evaluation. Data will be collected, analyzed and reported on the percentage of people served by optimally fluoridated water systems.

### Water System Operator Survey

The evaluation team, in partnership with the OHP and the DWP developed a survey to assess community water fluoridation equipment needs, and any training needs related to water fluoridation for water system operators or community members. The survey was sent out electronically in June 2020 by the CRH evaluation team. Results of the survey were utilized to direct future education, resource dissemination, and water fluoridation equipment purchasing proposed for the following grant year. See Appendix C for a copy of the survey.

## Statewide Oral Health Surveillance

The Oral Health Surveillance System is comprised of indicators to address federal recommendations, epidemiological inquiries, data requests, and to guide program and policy development. The state dental director, together with key partners, continue to identify gaps in data needs and data collection. As the ND Oral Health Surveillance System (OHSS) has continued to mature, the data collection efforts have expanded to include policy development, surveillance, and evaluation. As of 2020, the NDOHSS contains over 30 indicators that are routinely updated by OHP staff, the CRH, and key stakeholders.

The goals of the OHP that are evaluated in relation to data surveillance include:

- Maintaining and enhancing the oral health surveillance system.
- Disseminate findings from the oral health surveillance system.

The data system is also utilized to track the overall efficacy of the OHP by measuring progress toward two distinct goals set by the OHP team

1. Demonstrate reduction in dental caries and untreated decay in third grade children.
2. Demonstrate increase in number of third grade children with dental sealants.

## Findings

In March 2020, schools, business, dental offices, and dental clinics closed throughout the state of North Dakota in response to the global health pandemic (COVID-19). These closures impacted dental service provision and the work of this grant. The findings presented in this report do not all reflect twelve months of service provision, though they do report all care provided in the twelve-month grant cycle.

## SEAL!ND: School-Based Dental Sealant Program

The NDDoH OHP has established a school-based dental sealant program (SEAL!ND) which has been providing dental sealants, oral health education, and dental screenings and referrals for students throughout North Dakota dating back to 2012. The OHP continues to administer SEAL!ND utilizing dollars from both the [Centers for Disease Control \(CDC\) State Actions to Improve Oral Health Outcomes](#)<sup>t</sup> grant and the [Health Resources and Services Administration's Grants to States to Support Oral Health Workforce Activities](#).<sup>u</sup> The CDC reports that school-based sealant programs have been found to be a highly effective way to deliver preventive oral health and dental sealants to children who are less likely to receive private dental care.

The SEAL!ND program prioritizes providing preventive oral health care to low-income and underserved students by targeting schools with 45% or greater of their students enrolled in the free and reduced-fee school lunch program. The OHP Prevention Coordinator identifies eligible schools utilizing the [North Dakota Department of Public Instruction](#).<sup>j</sup> The coordinator then provides educational materials to school administrators, staff, and parents on the benefits of dental sealants, inviting participation in the program. Oral health services provided in participating schools are completed by either the PHH employed by the NDDoH OHP and supervised by one private practice dentist, through FQHC and private dental offices with MOUs signed with the OHP, or by dental team members from private dental practices supervised by the respective dentist.

In the first year of tracked services (2014-15), the PHH employed by the NDDoH OHP (supervised by one independent private practice dentist) was responsible for 100% of SEAL!ND services. During the 2015-16

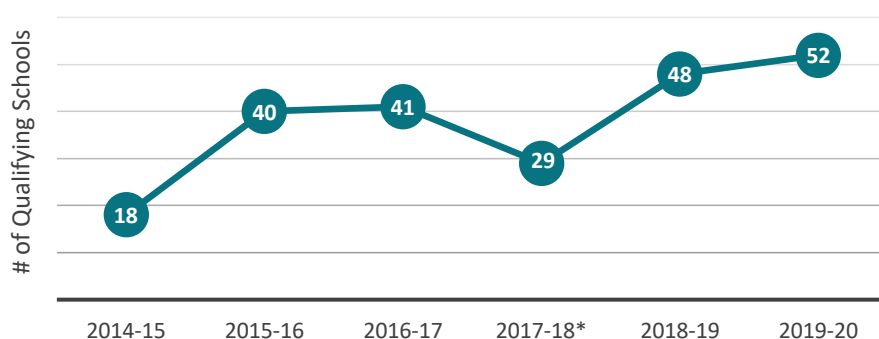
school year, the Ronald McDonald Care Mobile and FQHCs began offering school-based dental care and accounted for roughly 24% and 16% of services respectively. The following school year, private practice dentists began participating in SEAL!ND and accounted for 14% of sealant programs. The program has illustrated growth and sustainability, bringing in dental partners and providers to offer care and work in school settings.

Although this particular CDC grant funds dental services provided only in qualifying schools, the program has established sustainability by coordinating SEAL!ND activities throughout the state. The NDDoH Prevention Coordinator provides oversight, scheduling, materials, and manuals for both schools and dental teams alike. During the 2019-2020 school year, 84 schools participated in SEAL!ND; however, only 53 met the criteria of high-risk, reporting at least 45% of their students enrolled in the free and reduced-fee school lunch program. The number of schools that qualified for, and received, services from the NDDoH OHP has increased annually; in the last year, the number of participating qualifying schools increased by 10.4% (greater than the 5% goal). See Figure 1.

The following evaluation data assessing SEAL!ND focus around:

- Clinical reach of SEAL!ND and dental referrals.
- Cost savings.
- Participating school personnel perceptions of SEAL!ND.

Figure 1. Number of Qualifying Schools Participating in SEAL!ND, by Year



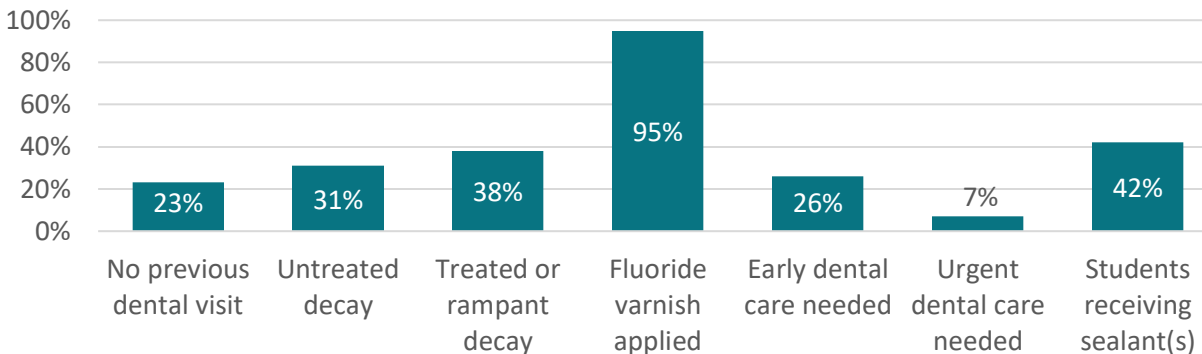
\* The visual decline in participation in 2017-18 is an error in reporting and not a true decline in service provision. Data for 2017-18 were only available for schools served by the PHH and did not include services provided by FQHCs or private dental teams.

### Clinical Reach

The following data included here relate to services provided only in those schools that qualified for participation based on their percentage of their students enrolled in the free and reduced-fee school lunch program. Data reflect students served in 52 of 80 participating schools.

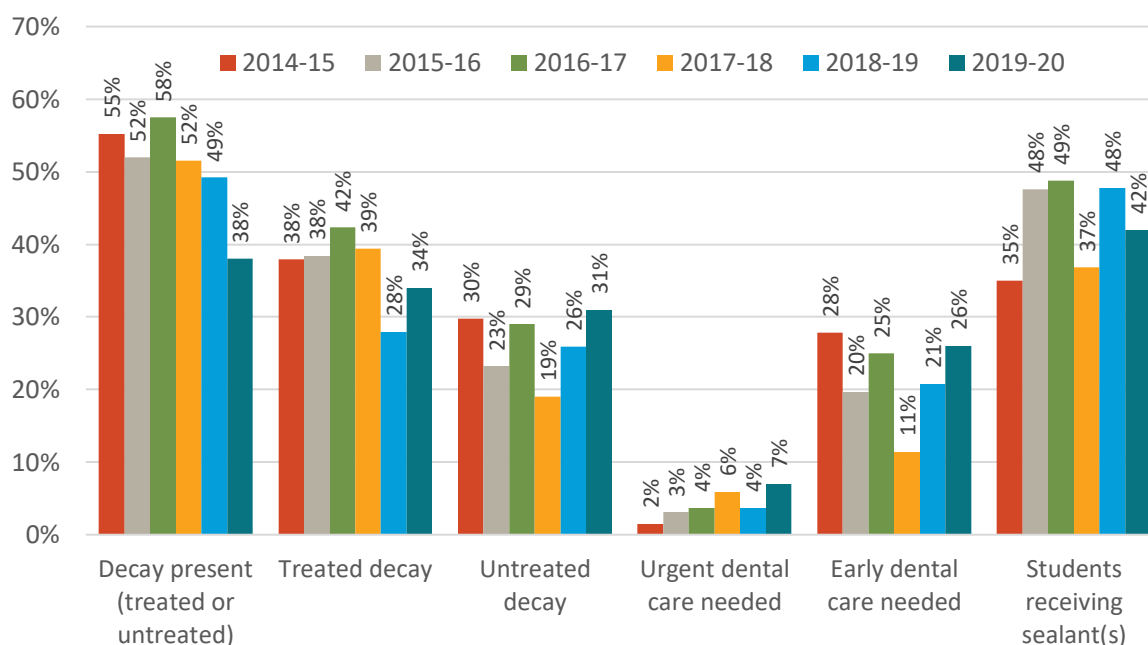
Students either received care from the PHH employed by the NDDoH OHP (27% of students) or from another dental provider with a signed MOU with the NDDoH OHP to include FQHC dental team members and private practice (73%). More than one in four (26%) students needed early dental care; an additional 7% required urgent care. Just under a quarter of students (23%) had had no previous dental visit. Nearly all students (95%) received a fluoride varnish application and 42% of students received at least one dental sealant. See Figure 2.

Figure 2. Percentage of Students Needing Treatment and Receiving Dental Services, 2019-2020 School Year



Outside of the outlier year (2017-18), generally one in five or one in four students were in need of early dental care. However, overtime, the percentage of students requiring urgent dental care has increased. See Figure 3. There is concern in comparing annual data because of continual workflow and data management changes that have been made to ease reporting and improve data collection. Moving forward, data collected should be consistent and comparable.

Figure 3. Percentage of Students Needing Treatment and Receiving Dental Services, By School Year



### Cost Savings

It was estimated that SEALIND sponsored by the NDDoH OHP prevented decay in 423 permanent molars in 2014-15. Stated another way, in 2018-19 for every 3.6 molars sealed, one cavity was prevented. The ratio of molars sealed per cavities prevented was similar in 2015-16 (3.6) and 2017-18 (3.9) and lower in 2014-15 (2.2) and 2016-17 (2.5). The average cost to fill a typical cavity was based on North Dakota Medicaid private practice reimbursement rates. As of July 1, 2020, the private practice reimbursement rate for one surface amalgam was \$79.05.<sup>v</sup> However, the NDDoH OHP and the evaluation team continue

to work with the CDC leads on how to calculate cost savings for year two. There is a question as to whether to use the reimbursement rate for the one surface amalgam or for a one surface composite filling as amalgam are not very common in North Dakota dental offices. Similarly, there is a question of calculating cavities prevented. Questions were first submitted to the granting agency in September.

**Table 1. Summary of Prevented Decay and Avoided Costs, by School Year**

YEAR	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Prevented decay in permanent molar	423	1,235	1,524	228	688	TBD
Ratio of number of molars sealed per cavities prevented	2.2	3.6	2.5	3.9	3.6	TBD
Avoided cost from cavity prevented per avoided caries	\$75.24	\$77.50	\$77.50	\$77.50	\$77.50	\$79.05
Total avoided cost	\$31,827	\$95,713	\$118,110	\$17,670	\$53,320	TBD

### School Personnel Perceptions

Of the 84 schools invited to participate, 57 schools completed a survey in full. More specifically,

- 19 individuals from 31 non-qualifying schools participated for a 61% response rate.
- 38 individuals from 53 qualifying schools participated for a 72% response rate.
- 57 individuals from all 84 schools participated for a 68% response rate.

A majority of the surveys (59%) were completed by administration with non-certified staff responsible for 36% of the completed responses. These perspectives primarily reflect those of administration and administrative assistants, and not certified educators. While it is likely that administration and non-certified administrative staff were responsible for a majority of the work associated with organizing SEAL!ND activities, certified staff (educators) may have a different perspective regarding questions related to the programs' potential disruption to the school day and parental response. There is potential to assess the perception of educators in the future. The evaluation team wrote a comprehensive report on SEAL!ND. Following are the summaries and recommendations taken from that report, based on the school personnel survey. Read the sealant report for additional data, figures, and tables.

#### *Summary One: Increased Providers Offering Dental Sealants*

Over the last six years, the proportion of SEAL!ND covered by the NDDoH OHP PHH has decreased as a result of greater participation among private practice dentists, FQHCs, and the Ronald McDonald Care Mobile. Several of these providers offer sealant programs in school settings where the school may not qualify for services, but there are still a large number of students in need of services (qualifying schools are those with 45% or greater of their students enrolled in the free and reduced-fee school lunch program).

#### *Summary Two: Staff Time and Effort*

Nearly one in three schools (32%) indicated that performing the school's role and responsibilities in SEAL!ND took a great deal of staff time and effort. Although participants were overall very satisfied with the program, and see it as an essential service, it is important to see if there are opportunities to reduce

the time commitments. More specifically, the variability in the concern over required staff time between qualifying (Q) and non-qualifying (NQ) schools was more evident when looking at the percentage of respondents that strongly agreed or agreed. Among Q schools, only 24% of respondents indicated that they agreed/strongly agreed that performing their school's roles and responsibilities in SEAL!ND took a great deal of staff time and effort compared to 50% of NQ schools. Similarly, when assessing challenges as they relate to overall participation in the program, a greater proportion of NQ schools than Q schools agreed or strongly agreed that the time and effort related to processing consent forms, answering questions, and walking students to the providers were challenges. Specifically, among NQ those rates were 19%, 13%, and 13% respectively compared to 3%, 0% and 5% respectively among Q schools.

### *Summary Three: Preferred Modes of Communication*

Overall the top three modes of communication used by both Q and NQ schools were: written materials sent home with students (98% of schools use this mode); newsletters (86% of schools use this mode); and, a school website (82% of schools use this mode). However, just because the mode of communication is the most common, it does not mean that it is deemed the most effective. Participants indicated the most effective modes of communication (indicated by marking "very effective") were: Facebook; smart phone apps (designed specifically for school); and, the school website. Beyond identifying which mode of communication is the most effective, school personnel were asked to indicate which assistance would be helpful from the NDDoH OHP and associated dental team members. Respondents identified the need for materials to explain SEAL!ND in easy-to-understand language (72%), and handouts with frequently asked questions (74%).

### *Summary Four: Dental Provider Access*

School personnel indicated which assistance would be helpful from the NDDoH OHP and associated dental team members. The greatest proportion of participants (81%) indicated that it would be helpful to have a list of dental providers who will work with low-income families and accept Medicaid.

### *Summary Five: Consent Forms and Parent Information*

The most significant barrier as it relates to obtaining consent is that parents do not return the consent form; 43% of Q schools and 38% of NQ schools indicated this was a barrier. Roughly one in four schools indicated that parents do not see the consent forms, and that parents are afraid they may have to pay for the services. One in five schools indicated that parents not understanding the program poses a challenge. In the open-ended response, a participant indicated concern with the timeliness of receiving needed materials to promote the program and secure consent, and the clarity of information for parents around the fee structure.

### *Summary Six: Space Limitations*

Of the listed challenges Physical space for the dental provider was the greatest challenge for both NQ and Q schools. Roughly one in four schools, overall, indicated that the physical space was a challenge. Space was also mentioned in the open-ended response question.

## Community Water Fluoridation

### Program Goals and Objectives

1. Maintain the number of people served by community water systems that receive optimally fluoridated water at 0.7mg/L.
2. Monitor fluoridation levels and the percentage of adjusted water systems that maintain optimally fluoridated water at 0.7mg/L.
3. Educate water treatment personnel on the importance of, and rationale for, recommended fluoridation levels.
4. Monitor fluoridation equipment.

### Goals One and Two

The CWF program began in the 1950s. According to the CDC, the “CDC is planning to release the 2018 biennial water fluoridation statistics in mid-August. These statistics were prepared using water system data reported by states to the CDC Water Fluoridation Reporting System as of December 31, 2018, the U.S. Census Bureau state population estimates as of July 2018, and population estimates served by public water supply as published by the U.S. Geological Survey in 2018.”

At the time of reporting, 688,710 persons were receiving fluoridated water in North Dakota, or roughly 96.5% of the state population is served by public water systems receiving optimally fluoridated water (0.7 mg/L). This ranks North Dakota five out of 51 total rankings and exceeds the Healthy People 2020 objective of 79.6%. The CWF Coordinator monitors contaminants, provides operator certification and training, conducts inspections of the water systems and provides technical assistance.

The OHP has a MOU with the DWP which is located within the NDDoH, Division of Municipal Facilities. The MOU ensures the OHP has access to information, reports, and expertise regarding the state’s CWF program and that the fluoridation coordinator is part of the task force that addresses fluoridation issues, concerns, and challenges. The CWF Coordinator collaborates with CWF personnel to monitor fluoridation equipment needs.

### Goal Three

The NDDoH OHP worked with several stakeholder and partners to ensure that North Dakota residents were receiving fluoridated drinking water, and that providers are trained on how to emphasize the importance of drinking tap water. In this grant cycle, the OHP worked closely with the DWP and the Drinking Water State Revolving Fund (DWSRF) program. It was determined that, given that North Dakota excels in water fluoridation levels, efforts were better spent training and educating clinical and dental providers on the efficacy of fluoride rather than training the community or current water operators on fluoridated water. Concern was raised that drawing attention to the level of fluoride in water may be detrimental to the cause and could lead to requests to remove fluoride from community water systems.

Training activities related to fluoridated water in this grant cycle included:

- Training from the American Fluoridation Society (AFS):
- July 10 training for dental and primary care providers. See Appendix D for a copy of the training announcement.



- August 26, 2020 part one of two: Webinar on how to speak up for fluoride in North Dakota. See Appendix E for a copy of the training announcement.
- August 28, 2020 part two of two: Public speaking around fluoride in North Dakota.
- Palm cards were developed and will be distributed to providers throughout the state. The OHP will provide them as requested.

### *Training Evaluations*

The training provided by the AFS in July 2020 included presentations from Dr. Johnny Johnson, Jr., DMD. MS (Founder, President on Board of Directors for AFS) and Matt Jacob, Communication Consultant with AFS. Certificates of attendance were provided. Attendees were largely from the dental community, local public health departments, and the Women Infant and Children (WIC) program. Overall, the training was well received. All attendees that completed the evaluation (12 of the 17 who attended) indicated that they agreed or strongly agreed that:

- The training enhanced their skills and confidence in engaging in brief conversation with patients about fluoride.
- The training was relevant to their career.
- The training was well organized.
- The training increased their knowledge of fluoride research and implications for clinical practice.

One of the 12 attendees (a dental assistant) disagreed that Dr. Johnson was knowledgeable about the subject matter, and one additional attendee (dental hygienist) was neutral; ten agreed or strongly agreed that he was knowledgeable on the topic.

On August 26 and 27, 2020 AFS hosted two webinars to train individuals on how to speak up for fluoride in North Dakota. The training was marketed toward:

- Dental providers or other health professionals who want to know more about the latest research findings about fluoride.
- Dental providers or other health professionals who want to improve their skills at giving public talks or presentations about oral health issues.

Participants had the option of attending ONLY session one, or both session one and two.

- Webinar one: Wednesday, August 26 (12:00 - 1:30 pm). Reviewed the typical arguments that opponents make and what the research shows about fluoride. This webinar also provides tips for communicating about fluoride.
- Webinar two: Friday, August 28 (12:00 - 1:30 pm). Gave people an opportunity to practice giving a talk about fluoridation and receive constructive feedback from instructors. Participation in this webinar was capped at 15 participants.

Twenty seven of the individuals who attended the training on August 26, 2020 completed a training evaluation. Of those 27, all but one were dental providers; five dentists, 14 hygienists, seven dental assistants, and one registered nurse from Health Tracks.

- 43% indicated some level of patient push-back regarding topical fluoride (n=12)
  - Roughly 45% (n=5) indicated the push-back predominately relates to the cost of the service while 4 individuals (37%) indicated the push back related to patient beliefs around, or fear of, fluoride.
- 54% indicated they rarely get any patients who say they do not want topical fluoride.

Roughly one in four participants (25%) indicated that they do not talk to their patients about fluoride in their drinking water. The remainder (74%, n=20) indicated they rarely get any push-back from patients about fluoride in their drinking water. No participant indicated regularly working with patients who push-back on fluoride in their drinking water.

Roughly 89% of participants agreed or strongly agreed that they would recommend this training to their colleague/peers. On average (using a five-point scale where 1 = strongly disagree and 5 = strongly agree) participants agreed that the training was relevant, enhanced their skills, and increased their knowledge. See Table 2.

**Table 2. Participants Average Agreement about the Efficacy of the Training**

1= Strongly disagree, 2 = Disagree, 3= Neutral, 4 = Agree, 5 = Strongly agree	
The training was relevant to my career.	4.33
The training/event was well-organized.	4.46
The presenter, Dr. Johnson, was knowledgeable about the subject matter.	4.59
The presenter, Mr. Jacob, was knowledgeable about the subject matter.	4.56
The training enhanced my skills and confidence in talking with community leaders and the public.	4.37
The training increased my knowledge of fluoride research.	4.41
I would recommend this training to my colleagues/peers.	4.30

Participants were asked, if community water fluoridation suddenly became an issue in your community or county, to what extent has this training helped prepare you to play a role in educating your community? More than half (59%) identified that it had “somewhat” prepared them and an additional 41% indicated that it prepared them “a lot.”

Comments from participants included:

- I am hoping the next webinar includes information regarding the uptake of health nurse applied varnish to improve dental health.
- Excellent information, made me aware of the battle that goes on in communities regarding fluoridation, didn't people didn't want it in their water. I believe it is due to a lack of educating the public on how beneficial it truly is. Like so many things people just listen to the negative from others and take that as truth instead of searching for themselves.
- I did not realize that moderate Fluoride stain was from ingesting the toothpaste and mouth rinse. Always thought it was high amount of fluoride in the water.
- Excellent training - thank you.
- I did not realize that moderate Fluorosis was from ingestion of the toothpaste and rinse, always thought it was from too much in the water.

Only two participants completed the evaluation for the follow-up training on August 28. Evaluation results are not reported because of the small sample. In addition to the hosted training events, ASF prepared a draft state plan for water fluoridation, and created two palm cards and an infographic focused on educating women on the safety and benefit of CWF. These palm cards and the infographic were shared with the public health hygienist practicing in one family medical center in the state, was added online, and will be disseminated more broadly in the coming grant year. These products are available for view in Appendices F-H.

## Goal Four

The NDDoH OHP held several meetings with members of the North Dakota Department of Environmental Quality over this grant period. Meetings consisted of brainstorming training needs, identifying barriers to maintain fluoridated water levels, equipment needs, potential survey opportunities, and opportunities to speak to and address water operators directly. Meetings included:

- Greg Wavra, Program Manager, Drinking Water Program
- Shannon Fisher, P.E., Program Manager, Drinking Water State Revolving Fund Program
- David Bruschwein, P.E., Director, Division of Municipal Facilities

In June and July 2020, the evaluation team had a survey that had been reviewed by all stakeholders that sought to identify the training and fluoridation equipment needs of water operators in North Dakota. The survey was sent to 113 water operators. A total of 26 surveys were completed in their entirety for a response rate of 23%. Only six of the 26 respondents indicated a need for water fluoridation equipment. Projected equipment costs ranged between \$300 and \$3,500. When asked to identify the priority level of various training topics for community water operators, nearly one in five (19%) of respondents identified training on the importance and health impact of water fluoridation as a high priority. See Table 3. When asked to identify the priority level of various training topics for community members, nearly one in five (19%) of respondents identified training on water systems' responsibilities for adding fluoride to community water systems. See Table 3.

**Table 3. Training Priority for Water Operators and Community Members (n=26)**

	Not a need at this time	Would be helpful	High Priority
<b>Training Need for Water Operators</b>			
Implementing and maintaining community water fluoridation	12	10	4
Importance and use of WFRS	11	12	3
Water fluoridation guidelines and recommendations	8	13	5
Importance and health impact of water fluoridation	8	13	5
<b>Training Need for Community Members</b>			
Water fluoridation guidelines and recommendations	10	13	3
Importance and health impact of water fluoridation	10	12	4
Water fluoridation data and statistics	11	12	3
Water systems' responsibilities for fluoride addition	7	14	5

## Statewide Oral Health Surveillance

The state dental director, together with key partners, continue to identify gaps in data needs and data collection. As the ND Oral Health Surveillance System (NDOHSS) has continued to mature, the data collection efforts have expanded to include policy development, surveillance, and evaluation. As of 2020, the NDOHSS contains over thirty indicators that are routinely updated by OHP staff, the CRH, and key stakeholders.

### Goal One: Maintain and Enhance the NDOHSS

The OHP seeks, collaborates, and coordinates opportunities to collect oral health data through the integration of existing surveys already conducted by state agencies and other organizations. Many partnerships have been established to leverage resources in data collection for the NDOHSS. The electronic web tracker is available at, <https://oral.health.nd.gov/data/surveillance-system/>.<sup>w</sup>

This web tracker is currently under revision. The evaluation team and the NDDoH OHP epidemiologist are working together to include new data points, updated rates, create new categorical reports, and the presentation of the data (the website itself) is in the midst of a large revision.

Partners/stakeholders include:

- Coordinated School Health Interagency Workgroup (Youth Risk Behavior Survey data)
- North Dakota Department of Health, Behavioral Risk Factor Surveillance System coordinator
- North Dakota Department of Public Instruction, Youth Risk Behavior Survey coordinator
- North Dakota Department of Human Services (NDDHS) (Medicaid and State Children's Health Insurance Program data)
- North Dakota Department of Health, Division of Vital Records (cleft lip/cleft palate data, oral cancer mortality)
- Head Start Programs (Program Information Report data)
- Schools (Basic Screening Survey data)
- North Dakota Dental Association (state survey data)
- North Dakota Department of Health, Office of the State Epidemiologist (New Mothers'/Pregnancy Risk Assessment Monitoring System data)
- North Dakota State Board of Dental Examiners (licensure workforce data)
- University of North Dakota Center for Rural Health (Dental Workforce Survey)
- North Dakota Department of Health, Division of Municipal Facilities (community fluoridation data)
- North Dakota Department of Health, Cancer Registry (oral cancer incidence)
- North Dakota Department of Health, Division of Tobacco Prevention and Control (Youth Tobacco Survey and adult tobacco use and cessation data)
- North Dakota Department of Health, Data Advisory Group
- North Dakota State Data Center (demographic data)

### Goal Two: Disseminate Findings from the NDOHSS

The ND OHP wants to improve the dissemination of oral health data and look for unique partnerships to share the work. In response to COVID-19, epidemiologists who had been identified to share data were

required to reallocate time to COVID response. The evaluation team at the CRH absorbed some of this responsibility in the current grant cycle. To date, they have shared oral health data through:

- Poster Presentation: [Benefits of Medical-Dental Integration for Medical Residents, Providers, and Patients<sup>x</sup>](#)
- Poster Presentation: [Evaluation of a Comprehensive Program Addressing Oral Health in Multiple, Diverse Community Settings<sup>y</sup>](#)
- Fact Sheet: [High Rates of Decay and Need for Dental Treatment Among American Indian and Alaska Native Kindergartners in North Dakota<sup>z</sup>](#)
- Fact Sheet: [High Rates of Decay and Need for Dental Treatment Among Rural Kindergartners in North Dakota<sup>aa</sup>](#)
- Fact Sheet: [Medical-Dental Integration in North Dakota<sup>bb</sup>](#)
- Fact Sheet: [Progress and Reach of the SEAL!ND Program<sup>cc</sup>](#)
- National Presentation: [Rural Community Collaborations and Models Addressing Oral Health<sup>dd</sup>](#)
- Report: [Evaluation of Dental Student Rotations in North Dakota Federally Qualified Health Centers: 2019-2020<sup>ee</sup>](#)
- Brief: [Dental Student Rotations at a Federally Qualified Health Center: 2019-2020<sup>ff</sup>](#)
- Fact Sheet: [Dental Pain Management in Dental Clinics, Emergency Rooms, and Primary Care Settings in North Dakota<sup>gg</sup>](#)
- Infographic: [Smiles for Life: Data Snapshot \(June 2019-May 2020\)<sup>hh</sup>](#)
- Brief: [Brief: Evaluation of Medical-Dental Integration at the University of North Dakota Center for Family Medicine<sup>ii</sup>](#)
- Full Report: [Evaluation Report: Medical-Dental Integration at the University of North Dakota Center for Family Medicine<sup>kk</sup>](#)
- Toolkit: [Medical-Dental Integration Manual<sup>ll</sup>](#)

Products in process:

- Full School-Based Sealant Report
- School-Based Sealant Brief
- School-Based Sealant Program: Teacher Perspectives Brief
- SEAL!ND Infographic

## Recommendations

The OHP has had great success in the second year of programming. In addition, they have strengthened their evaluation plan, evaluation activities, and program information dissemination strategies. Recommendations that follow are based on the data from year two, but it must be noted that some of these recommendations may need to be revised or tabled in the coming year recognizing new barriers to service provision in response to the global health pandemic (COVID-19). The OHP has already had dozens of planning meetings to adjust their work in response to the pandemic and to ensure that services are still being offered in North Dakota, but in a new format. The evaluation team recommends the OHP continues this open line of communication with all partners, stakeholders, and subcontracts as program goals and activities shift.

### SEAL!ND: School-Based Dental Sealant Program

Specific recommendations as they relate to the school personnel perceptions follow; however, one large recommendation is to consider revising the survey tool utilized to collect this information so that in the following year(s) there are questions specific to the global health pandemic (COVID-19). It has yet to be seen how the pandemic will impact this goal specifically, but there will be changes in the coming school year and significant barriers to providing oral health in school settings. The following recommendations are made off of the assumption that schools return to participate in SEAL!ND.

#### Recommendation One: Increased Providers Offering Dental Sealants

Over the last six years, the proportion of SEAL!ND schools covered by the PHH has decreased as a result of greater participation among private practice dentists, FQHCs, and the Ronald McDonald Care Mobile. The NDDoH OHP should continue to provide services, but the state would benefit if the OHP allocated staff time to developing resources for private practice dentists. Resources can focus on the need to participate in such programs, how to reimburse for services, frequently asked questions among private providers, and the benefit of such a program to the school, students, and community. This information should then be disseminated widely among private providers in the state that might be willing to participate in a similar service.

Dissemination strategies can include sharing the information in an email/newsletter through the North Dakota Dental Association (NDDA), sharing information at the annual NDDA meeting, or hosting a short webinar for dentists on the value of the program that can then be recorded and archived for viewing.

It would be beneficial to have private practice providers who already participate in the program share their experience. This can be done while hosting the webinar, speaking at the NDDA annual meeting, or sharing testimonials and tips in newsletters or NDDA email. When new private practice dental teams are identified, they can be connected with a dental team already participating in the program who may serve as a mentor. In order to increase private practice participation, it is also important for the OHP to have templates and resources already prepared. These would include, but are not limited to:

- Consent forms for students.
- Materials for the schools (frequently asked questions, promotional materials, steps to participate, time commitments, referral resources, etc.).
- Check list and timeline of steps for both the school and the private practice dental provider.
- Data collection (dental screening) forms that mirror those being used by the NDDoH OHP for consistent data collection and sharing across both Q and NQ schools.

## Recommendation Two: Staff Time and Effort

Nearly one in three schools (32%) indicated that performing the school's role and responsibilities in SEAL!ND took a great deal of staff time and effort. Among Q schools, only 24% of respondents indicated that they agreed/strongly agreed that performing their school's roles and responsibilities in SEAL!ND took a great deal of staff time and effort compared to 50% of NQ schools.

The NDDoH OHP would be well served to revise the current toolkit/manual for participating schools to include templates, checklists, forms, and additional resources that may reduce the school staff's time and commitment in the organization and promotion of the program. It would also be valuable for the OHP team to reach out to other school-based sealant programs nationally to identify other tools or strategies that have been used to overcome this challenge. Finally, it may be beneficial in a future, abbreviated survey to invite participation from all staff and personal who participate in a sealant program in North Dakota and ask what specifically requires the greatest time commitment, and ideas to improve this component of the program. More specifically, it would be important to identify why the time commitments appear to be a challenge for a greater percentage of NQ schools than for Q schools.

## Recommendation Three: Preferred Modes of Communication

Participants indicated the most effective modes of communication (indicated by marking "very effective") were: Facebook; smart phone apps (designed specifically for school); and, the school website. Respondents identified the need for materials to explain SEAL!ND in easy-to-understand language (72%), and handouts with frequently asked questions (74%).

The NDDoH OHP, as identified under recommendation two, would benefit from developing a (or revising the current) toolkit or manual for schools and dental teams interested in participating in SEAL!ND. This manual would not only provide checklists for school and dental teams as it does currently, but could include draft media guides, informational brochures, and other resources for print and distribution. More specifically, the NDDoH OHP could prepare language/templates that schools could copy and paste to promote the program, and answer questions. Specifically, prepare language for:

- Social media postings.
- School newsletters.
- Smart phone apps.
- Parent information sheets.

## Recommendation Four: Dental Provider Access

The greatest proportion of participants (81%) indicated that it would be helpful to have a list of dental providers who will work with low-income families and accept Medicaid. It is recommended that the NDDoH OHP work with the NDDA, as well as other statewide partners, to develop a list of providers that can be offered to schools participating in SEAL!ND. This list could also be included in the recommended revised SEAL!ND manual/toolkit under recommendations two and three.

## Recommendation Five: Consent Forms and Parent Information

The most significant barrier as it relates to obtaining consent is that parents do not return the consent form; 43% of Q schools and 38% of NQ schools indicated this was a barrier. Roughly one in four schools indicated that parents do not see the consent forms. One in five schools indicated that parents not understanding the program poses a challenge.

Similar to earlier recommendations, the NDDoH OHP could prepare/revise a manual or toolkit to include clear information on the funding structure, when and how to secure parental consent, and template promotional materials. Having this guide on-hand would overcome the concern of timeliness, and would also offer comprehensive information needed to assist parents in making an informed decision. However, with the barrier of securing consent, one recommendation is to secure parental consent at in-person events. Parents can be asked to sign consent forms early in the school year at back-to-school events, meet your teacher nights, or at the first round of parent-teacher conferences. This effort would require coordination and ensuring dates or tentative dates have been set. Parents should be sent a preliminary letter asking for consent and sharing information about the program and the fee-structure, then, at an in-person event, they can again be given the information and invited to sign the consent in-person.

### Recommendation Six: Space Limitations

Roughly one in four schools, overall, indicated that the physical space was a challenge. Although three out of four schools did not agree that space was an issue, it is important to provide recommendations and ideas for those schools (roughly a quarter) who saw this as a significant barrier to participating in a school-based dental seal program. It is recommended that the NDDoH OHP work with dental teams and schools to generate creative ideas and solutions around space barriers. The ND DoH OHP has noted that when a school has been on boarded to participate in the program, the coordinator already discusses areas for use to include stages, gymnasiums, nurses offices, etc. Given that this is still a noted barrier, the ND DoH OHP may benefit from developing a one-page infographic highlighting the use of unique school spaces and the student flow-through for each.

## Community Water Fluoridation

A majority of North Dakota communities had access to optimally fluoridated water. What North Dakota has not yet explored is the:

- Use and impact of well water across the state.
- Level of access to fluoridated water among tribal reservations in the state.
- Proportion of the state's population that drinks water from the tap, uses tap water for infants and children, or uses tap water in their cooking.

It is recommended that the NDDoH OHP consider a community survey, poll, and/or focus group to identify the general use of tap water in the state. There has been growing popularity in refrigeration systems that filter water with families no longer drinking from the tap, increase in sales of bottled water, and following the Flint, Michigan water crisis, increase in families that no longer drink from the tap. Having optimal levels of fluoride in the water will not have the added oral health benefit if community members are not drinking tap water.

### Informing the Community

Water system operators identified that it would be helpful to provide more information for community members on the role of water systems and their responsibilities around water fluoridation. It is recommended the NDDoH OHP work with the DWP to develop a one-page infographic or factsheet that describes the role of state water systems as it relates to CWF.

Following feedback from the AFS, an additional product that would benefit the community is a resource highlighting key myths and facts around drinking fluoridated water. It would be beneficial to use a local



pediatrician and a local dentist to feature on the product, highlighting the safety of drinking tap water and the need to maintain optimal water fluoridation levels for good oral health.

### Training Water Operators

Regarding water operators, the NDDoH should consider instating an equipment grant to replace equipment in local water systems specifically used in the process of fluoridating water. The NDDoH OHP should also speak at the water system's annual meeting as permitted, and work with partners to develop training opportunities that carry continuing education credits for water system operators (approved by their licensing board). There is specific interest among operators to attend training on water fluoridation guidelines and recommendations, and the importance and health impact of water fluoridation.

In the survey of water operators, roughly 84% indicated they had not taken the CDC's [Fluoridation Learning Online \(FLO\) training](#).<sup>ii</sup> The online FLO course is a free resource designed to build the capacity of state fluoridation programs, and to help increase knowledge and refine skills to implement and maintain CWF.

## Statewide Oral Health Surveillance

The NDDoH OHP has developed and maintained strong collaborative relationships with partners and stakeholders dedicated to compiling data on oral health. However, the data are not fully utilized, nor is the data list comprehensive. The evaluation team recommends that the NDDoH OHP:

- Revise the web-version of the NDOHSS to be user friendly and provide visual presentation of longitudinal data when possible.
- Integrate data collected as part of the ND OHP evaluation into the NDOHSS.
- Produce infographics and factsheets for various datasets in order to share oral health success stories and oral health inequities.
- Develop a strong communication strategy for disseminating developed products to include promotion in statewide and national organizations'/associations' newsletters.

## Evaluation Use, Dissemination and Sharing Plan

Evaluation results are used for:

- Real-time performance improvement.
- Work Plan development for future grant continuations.
- Informing stakeholders and the public on the progress and activities of the ND OHP.

### Performance Improvement

As the contracted evaluation team (CRH) conducts surveys, focus groups, and/or review of primary and secondary data, results are shared back with members of the OHP team. The CRH will share results verbally on monthly check-in calls, via email with interested partners/stakeholders, and formally in reports or fact sheets. Specifically, the CRH shares results in real-time in an effort to improve the grant activities in real-time. For example, schools were surveyed at mid-point in the school year so results of the survey could inform ongoing work, communication with the schools, and future resource development. Similarly, the OHP invites the evaluation team to be part of all future planning calls to consider data collection strategies prior to the implementation of new work.

### Work Plan Development

Evaluation results, and recommendations taken from the evaluation report help inform future activities at the OHP. For example, the evaluation results indicated a need to develop future training and product development around CWF. The OHP has already proposed activities for the coming year to train providers on the need for CWF, and have begun discussing how to work with, and for, tribal nations in the state to assess water fluoridation levels and ensure safe and healthy drinking water.

### Dissemination of Results

It is important that the community, state provider groups, and other state-based oral health programs know what the OHP has done in the last year. It is imperative to share lessons learned, as well as success stories, so that other states can learn from North Dakota, and so that other statewide partners know where to go for collaboration. In the last grant year, the contracted evaluation team at the CRH have worked with the OHP to develop several products, presentations, and posters to highlight the work of the NDDoH OHP. Note, only those marked with an \*asterisk are specific to work completed under this CDC grant.

- Poster Presentation: [Benefits of Medical-Dental Integration for Medical Residents, Providers, and Patients](#)<sup>x</sup>
- \*Poster Presentation: [Evaluation of a Comprehensive Program Addressing Oral Health in Multiple, Diverse Community Settings](#)<sup>y</sup>
- \*Fact Sheet: [High Rates of Decay and Need for Dental Treatment Among American Indian and Alaska Native Kindergartners in North Dakota](#)<sup>z</sup>
- \*Fact Sheet: [High Rates of Decay and Need for Dental Treatment Among Rural Kindergartners in North Dakota](#)<sup>aa</sup>
- Fact Sheet: [Medical-Dental Integration in North Dakota](#)<sup>bb</sup>
- \*Fact Sheet: [Progress and Reach of the SEAL!ND Program](#)<sup>cc</sup>
- \*National Presentation: [Rural Community Collaborations and Models Addressing Oral Health](#)<sup>dd</sup>

- Report: [Evaluation of Dental Student Rotations in North Dakota Federally Qualified Health Centers: 2019-2020<sup>ee</sup>](#)
- Brief: [Dental Student Rotations at a Federally Qualified Health Center: 2019-2020<sup>ff</sup>](#)
- Fact Sheet: [Dental Pain Management in Dental Clinics, Emergency Rooms, and Primary Care Settings in North Dakota<sup>gg</sup>](#)
- Infographic: [Smiles for Life: Data Snapshot \(June 2019-May 2020\)<sup>hh</sup>](#)
- Brief: [Brief: Evaluation of Medical-Dental Integration at the University of North Dakota Center for Family Medicine<sup>ii</sup>](#)
- Full Report: [Evaluation Report: Medical-Dental Integration at the University of North Dakota Center for Family Medicine<sup>kk</sup>](#)
- Toolkit: [Medical-Dental Integration Model<sup>ll</sup>](#)

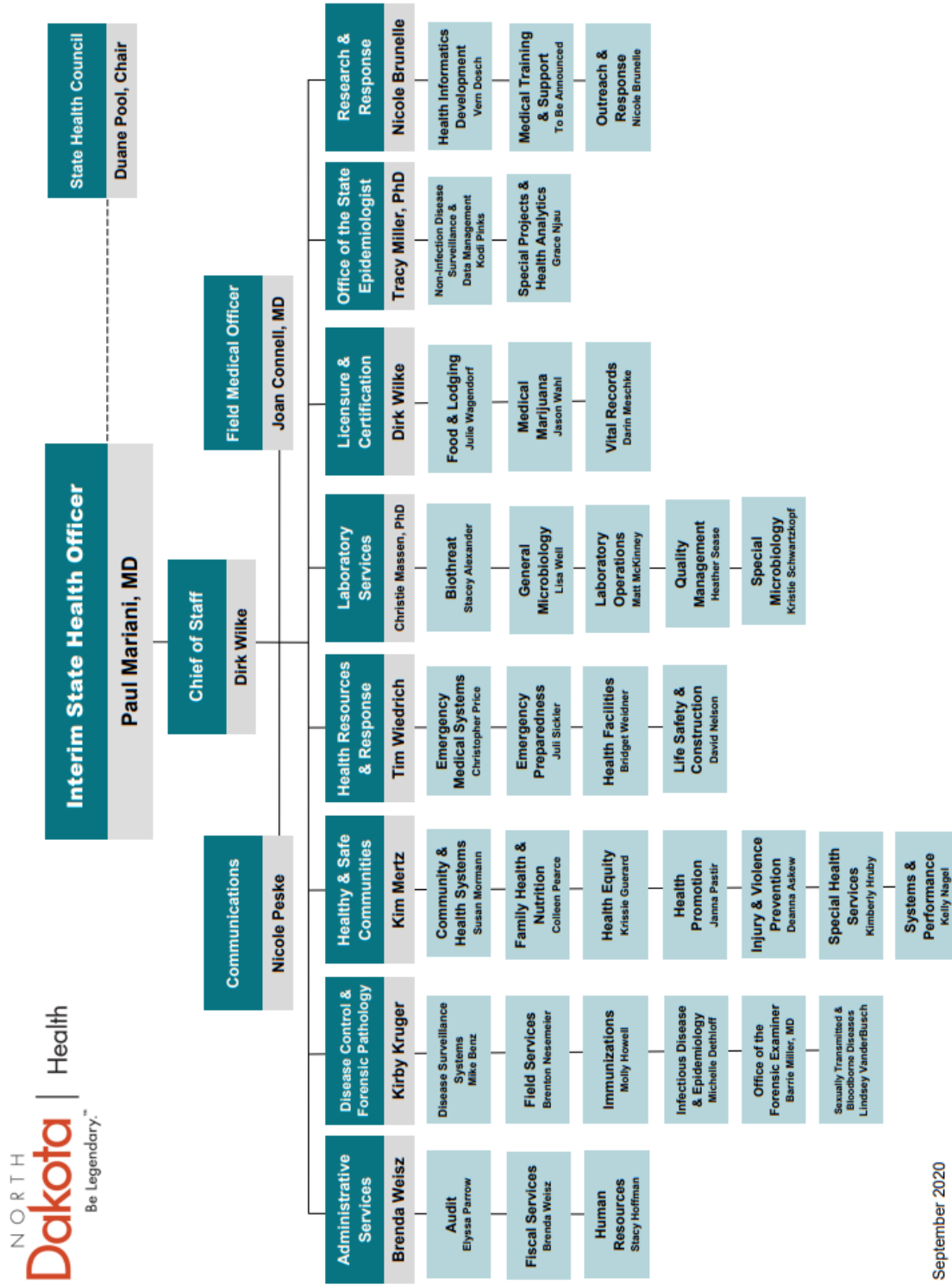
Products in process:

- \*Full School-Based Sealant Report
- \*School-Based Sealant Brief
- \*School-Based Sealant Program: Teacher Perspectives Brief
- \*SEAL!ND Infographic

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# Appendix A: North Dakota Department of Health Organizational Chart



Available at [https://www.health.nd.gov/sites/www/files/documents/Files/NDDoH\\_Org\\_Chart.pdf](https://www.health.nd.gov/sites/www/files/documents/Files/NDDoH_Org_Chart.pdf)

## Appendix B: Survey of Personnel Participating in School-Based Sealant Program

Hello,

Thank you for participating in the 2019-2020 North Dakota School-based Sealant Program. As required by federal funding agencies, The Center for Rural Health at the University of North Dakota is completing an assessment of the School-based Sealant Program. This assessment includes a short questionnaire to capture you and your school's experience in the School-based Sealant Program. Your feedback is very important and will help the program identify things that are working well, and areas for improvement.

Please consider taking 5-10 minutes to complete this short electronic survey. Your responses are voluntary, anonymous, and data will only be shared aggregately. Your responses will go directly to the research team at the Center for Rural Health who will summarize data across all participating schools and share final results with the School-based Sealant Program, the federal funding agency, and participating schools (including yours). Please contact us if you have any questions or need additional information.

This evaluation has been approved by the University of North Dakota Institution Review Board. If you have questions about the survey or the evaluation, please contact Shawnda Schroeder at [Shawnda.schroeder@UND.edu](mailto:Shawnda.schroeder@UND.edu) or 701-777-0787. If you have questions for the University of North Dakota's Institutional Review Board, you may contact [und.irb@research.und.edu](mailto:und.irb@research.und.edu) or 701.777.4279.

Thank you for your participation,

**[NOTE: Developed Duplicate Surveys: One for "Qualified Schools" one for "Non-qualifying Schools"]**

**1. Was your school contacted and invited to participate in the 2019-2020 North Dakota School-based Sealant Program (whether or not you actually received services)?**

- ☐ Yes, we were contacted about the program
- ☐ No, we were not contacted about participating [skip to Q.3]
- ☐ Unsure

**2. Did your school participate in the 2019-2020 North Dakota School-based Sealant Program?**

- ☐ Yes, our students received dental services through the Sealant Program
- ☐ No, our students did not receive dental services through the Sealant Program [end survey]
- ☐ Unsure [end survey]

**3. What is your primary role at the school?**

- ☐ Administration (school leaders)
- ☐ Certified staff (including classroom and special education teachers, counselors, speech pathologists, school psychologists, occupational therapists, etc.)
- ☐ Non-certified staff (to include paraprofessionals, food service, administrative assistance, custodial, or transportation)

4. Please indicate your level of agreement with the following statements about your school's experience with the School-based **Sealant Program**.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
We were well informed by the dental provider about the School-based Sealant Program offered at our school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We had sufficient information to promote the School-based Sealant Program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We understood our roles and responsibilities in delivering the School-based Sealant Program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performing our school's roles and responsibilities in the School-based Sealant Program took a great deal of staff time and effort.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We had sufficient communication with the dental provider to coordinate the delivery of services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We had sufficient communication with the dental provider regarding the operation of the School-based Sealant Program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Please indicate your level of agreement with the following statements about your school's experience with the **Dental Hygienist/Dental Care Provider**.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
It was easy to get in touch with the dental provider.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It was easy to communicate with the dental provider.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The dental provider was knowledgeable about oral health care.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The dental provider was considerate to staff and students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. How effective are the different type(s) of media/communication that you use at your school to inform parents about school announcements and various programs and activities?

	Do Not Use this Type of Media	Not Effective	Moderately Effective	Very Effective
Newsletter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Press release	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brochure/pamphlet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
School website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Facebook	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Twitter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Instagram	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Text alerts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Email	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smart phone apps (designed specifically for school)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Direct mail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Written materials sent home with students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Below is a list of ways the **Dental Team and Program Leads** could further support the School-based Sealant Program in your school. Please indicate if you would like help with any of the following activities.

	Would be Helpful	Not a Need at this Time
Develop social media content for Facebook, text messages, etc.	<input type="checkbox"/>	<input type="checkbox"/>
Develop handouts of frequently asked questions.	<input type="checkbox"/>	<input type="checkbox"/>
Provide a list of providers that work with low-income families/accept Medicaid.	<input type="checkbox"/>	<input type="checkbox"/>
Develop materials that explain the program in easy-to-understand language.	<input type="checkbox"/>	<input type="checkbox"/>
Have a representative participate in Back-To-School-Night.	<input type="checkbox"/>	<input type="checkbox"/>
Direct mail program information sheet.	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>



8. Indicate how much you agree or disagree that the following pose a challenge to obtaining the consent for participation at your school.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Parents don't understand the program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parents are afraid they have to pay for the service(s) provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parents don't see consent materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parents don't return consent forms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Indicate how much you agree or disagree that the following pose a challenge to participating in the School-based Sealant Program.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Physical space for dental provider.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time and efforts to process program information and consent form.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time and efforts to answer questions from parents regarding the program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Staff to walk students to dental providers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other school staff time and effort: [Specify]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other school staff time and effort: [Specify]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other school staff time and effort: [Specify]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other challenges:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other challenges:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other challenges:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Please provide any additional feedback/suggestions on how we can improve the School-based Sealant Program:

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## Appendix C: Survey of North Dakota Community Water Operators

The North Dakota Oral Health Program has funding through the Center for Disease Control and Prevention to support the fluoridation of community water systems throughout the state. To assist in these efforts, the Oral Health Program would appreciate your response to a short survey inventorying community water fluoridation equipment and any training needs related to water fluoridation for water system operators or community members.

Your participation is entirely voluntary. There are no negative consequences should you decide not to complete the survey and you can stop the survey at any time. Your responses will be shared with the state Oral Health Program to guide training and resource development, and to identify opportunities to assist with replacing water fluoridation equipment in North Dakota. Only aggregate data with no local identifiers will be shared outside of the program. If you have any questions about how the data will be used, please contact the program evaluator, Shawnda Schroeder at the Center for Rural Health, University of North Dakota at [Shawnda.schroeder@UND.edu](mailto:Shawnda.schroeder@UND.edu) or 701-777-0787.

Thank you!

1. Contact information for follow-up on identified water fluoridation training or equipment needs.

Name:

Phone number:

Email:

Water treatment plant:

Address:

2. Have you ever taken a water fluoridation course? The in-person training has been titled *Water Fluoridation Principles and Practices*; the new online version is called FLO ([Fluoridation Learning Online](#)) offered through the Centers for Disease Control and Prevention.

- ☐ Yes, I took it online
- ☐ Yes, I took an in-person training
- ☐ No

3. Is your water treatment plant in need of new or replacement equipment related to water fluoridation?

- ☐ Yes
- ☐ No [Skip Q.4]

4. Please list any equipment utilized for water fluoridation that needs replacement at your water treatment plant, and estimated cost (if known).

Equipment	Estimated cost (\$)
1.	\$
2.	\$
3.	\$
4.	\$
5.	\$

5. Please indicate how high of a priority the following training/resource topics are for **Water System Operators and Engineers** in North Dakota.

	Not a need at this time	Training would be helpful	High priority
Implementing and maintaining community water fluoridation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Importance and use of the Water Fluoridation Response System (WFRS).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water fluoridation guidelines and recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Importance and health impact of water fluoridation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other topics for Water System Operators and Engineers:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other topics for Water System Operators and Engineers:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Please indicate how high of a priority the following training/resource topics are for your **Community Members**.

	Not a need at this time	Training would be helpful	High priority
Water fluoridation guidelines and recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Importance and health impact of water fluoridation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water fluoridation data and statistics (nationally and in North Dakota)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water systems' responsibilities for fluoride addition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other community topics:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other community topics:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Anything more you would like to share with the Oral Health Program regarding fluoridated water in North Dakota?

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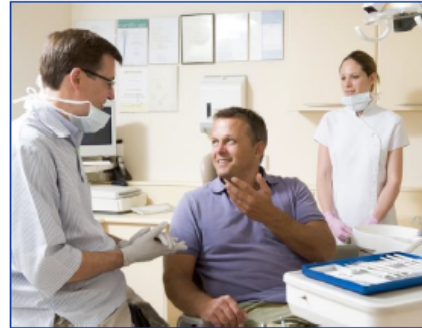


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## A new continuing education opportunity!

# Talking with patients about fluoride

Dental providers and pediatric medical providers can educate their patients and encourage healthy habits at home by having brief conversations about fluoride. This is especially important because your patients can be confused or misled by what they read online — making them less inclined to follow treatment plans or proven oral hygiene practices.



Dental care visits or “well child” visits to pediatricians are excellent opportunities to educate them. The North Dakota Department of Health’s Oral Health Program is sponsoring a FREE webinar on Friday, July 10th (from 12 to 1 pm) that will review recent recommendations and research about fluoride. This webinar will also provide communication tips for having brief, positive conversations about oral health and fluoride.

To register for this webinar, send an email to [DrJohnnyJohnson@gmail.com](mailto:DrJohnnyJohnson@gmail.com). Dentists, dental hygienists and dental assistants who attend the webinar and complete the post-webinar evaluation will obtain a certificate for 1 free CE credit.

### Meet the AFS training presenters:



**Johnny Johnson, DMD, MS**, is a pediatric dentist from Pinellas County, Florida. He is also the co-founder and President of the American Fluoridation Society. Dr. Johnson has delivered presentations, training and testimony about fluoride in numerous states, and in Canada and the United Kingdom. His leadership role in fluoridation advocacy began after his county commission voted to end fluoridation — a decision that was successfully reversed by a coalition of residents that Dr. Johnson helped to organize.

In 2017, Dr. Johnson received the DentaQuest “Health Equity Hero” award. In 2014, he was honored by the Florida Dental Association, which gave him its Distinguished Service Award. In 2013, the American Academy of Pediatrics gave Dr. Johnson the Determination Award for his leadership in restoring fluoridation in Pinellas County, where he lives. Dr. Johnson received his

dental training from the University of Florida, and he earned his Certificate in Pediatric Dentistry and Masters of Science from the University of North Carolina at Chapel Hill.

**Matt Jacob, BA**, is a communications and marketing consultant who works closely with public health organizations. For the past 10 years, he has worked most closely with oral health stakeholders, helping them translate complicated information into messages that are clear, concise and compelling.

Mr. Jacob has given presentations on communicating effectively to a variety of audiences, including the National Academy of Medicine and the American Public Health Association. In 2014, HealthLiteracyMonth.org named Mr. Jacob one of its Health Literacy Heroes. In 2015, his work was honored with three awards from the National Public Health Information Coalition. In May 2020, Mr. Jacob was honored by the Association of State & Territorial Dental Directors for “outstanding contributions to dental public health.” He earned his B.A. in journalism from the University of Arkansas.



**Want to register?** Send an email to [DrJohnnyJohnson@gmail.com](mailto:DrJohnnyJohnson@gmail.com)

A new continuing education opportunity!

## Speaking up for fluoride in North Dakota

Misinformation about fluoride and fluoridation circulate online, making it harder to keep our communities healthy. The good news is that most North Dakotans have access to fluoridated drinking water. But this could change soon. In recent years, a number of communities in Iowa, Montana, Wisconsin and other states have been pressured to end water fluoridation, and some of them have given in to that pressure. North Dakota could face this situation unless we proactively educate the public — in other words: prevention. A new FREE training sponsored by the American Fluoridation Society (AFS) will help prepare you to give a public talk/presentation about fluoride or fluoridation.

### THIS TRAINING IS IDEAL FOR:

- Dental providers or other health professionals who want to know more about the latest research findings about fluoride
- Dental providers or other health professionals who want to improve their skills at giving public talks or presentations about oral health issues

Choose to attend Webinar #1 only or choose both webinars:

*Webinar #1 – Wednesday, August 26* (from 12 to 1:30 pm) will review the typical arguments that opponents make and what the research shows about fluoride. This webinar will also provide tips for communicating about fluoride.

*Webinar #2 – Friday, August 28* (from 12 to 1:30 pm) will give people an opportunity to practice giving a talk about fluoridation and receive constructive feedback from instructors. Participation in this webinar is capped at 15 participants. Participation in Webinar #2 requires participation in Webinar #1.

To register for this webinar, send an email to [DrJohnnyJohnson@gmail.com](mailto:DrJohnnyJohnson@gmail.com). Dentists, dental hygienists and dental assistants who complete Webinar #1 can obtain 1 CE credit from the North Dakota Board of Dental Examiners. These AFS webinars are supported by grant funds from the North Dakota Department of Health Oral Health Program CDC-DP1810 grant.

### Meet the co-instructors:



**Johnny Johnson, DMD, MS**, is a pediatric dentist from Pinellas County, Florida. He is also the co-founder and President of the American Fluoridation Society. Dr. Johnson has delivered presentations, training and testimony about fluoride in numerous states, and in Canada and the United Kingdom. His leadership role in fluoridation advocacy began by convincing his county commission to reverse its prior decision to end fluoridation. In 2017, Dr. Johnson received the DentaQuest “Health Equity Hero” award. In 2014, he was honored by the Florida Dental Association. Dr. Johnson received his dental training from the University of Florida, and he earned his Certificate in Pediatric Dentistry and M.S. from the University of North Carolina at Chapel Hill.

**Matt Jacob, BA**, is a public health communications consultant who has worked with many oral health stakeholders in more than a dozen states. Mr. Jacob has given presentations about public health communication to a variety of audiences, including the National Academy of Medicine and American Public Health Association. In 2014, HealthLiteracyMonth.org named Mr. Jacob one of its Health Literacy Heroes. In 2020, he was honored by the Association of State & Territorial Dental Directors for “outstanding contributions to dental public health.” He earned his B.A. in journalism from the University of Arkansas.



**Want to register?** Send an email to [DrJohnnyJohnson@gmail.com](mailto:DrJohnnyJohnson@gmail.com)



# Take care of your mouth

## Take care of you and your baby



**1**

**Brush your teeth  
2 times each day  
with a fluoride  
toothpaste**

**WHY?** Because the children of mothers with untreated cavities or missing teeth are over 3 times more likely to have cavities as a child. Brushing regularly with a fluoride toothpaste reduces cavity-causing germs in your mouth — making you less likely to pass on these germs to your newborn.



**2**

**Drink plenty of  
tap water**

**WHY?** Dehydration happens when your body loses water faster than it takes in water. It's more common during pregnancy, and severe dehydration could harm your health and your pregnancy. The healthiest water to drink is tap water. Most North Dakota cities and towns provide tap water with the right amount of fluoride to help protect teeth from cavities.



**3**

**Visit a dentist  
during your  
pregnancy**

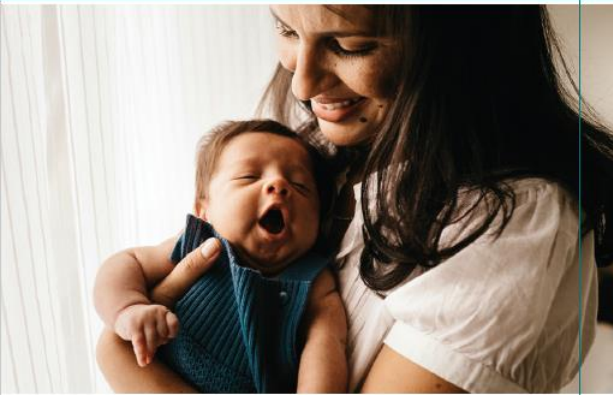
**WHY?** It's important and safe to visit a dentist to have your teeth cleaned, get an x-ray or get treatment for a cavity. Your dental office also can recommend ways to keep your gums healthy. Most pregnant women have gingivitis, an early stage of gum disease that leaves gums red and swollen. Research shows there may be a link between gum disease and birth complications, including low birthweight babies and pre-term births.



**4**

**Don't "clean" a  
dropped pacifier  
with your saliva**

**WHY?** Babies are not born with the germs (bacteria) that cause tooth decay. When a parent "cleans" a dropped pacifier with their own saliva or shares a spoon with their baby, they can accidentally expose them to their cavity-causing germs.



## A Healthy Mouth Matters during Pregnancy

**D**uring pregnancy, women living in tribal communities are more prone to cavities and gum disease. In fact, women with a lot of cavity-causing bacteria before or after a child's birth can pass these bacteria to their baby's mouth. This can raise the risk of cavities (tooth decay) as their baby's teeth appear.

To help your developing baby, eat healthy foods and avoid sugary drinks. Water is the healthiest drink for pregnant women. Becoming a mom is something to smile about! These tips can keep your mouth — and your baby's mouth — healthy.

**Check the other side for tips to keep yourself and your baby healthy! →**

Sources include the National Institutes of Health; CDC; American Dental Association; American Academy of Pediatrics; National Indian Health Board; and Children's Dental Health Project.

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## During Pregnancy

- ☐ Use your own toothbrush. Replace it every 3 months.
- ☐ Brush at least twice each day with a fluoride toothpaste. Fluoride is a natural mineral found in lakes, rivers, groundwater and oceans. This is nature's way to prevent tooth decay.
- ☐ See a dentist. Cleanings and X-rays are safe and help keep your teeth healthy.
- ☐ Drink plenty of tap water to keep hydrated.
- ☐ Limit sugary drinks, sticky candies, and chewing gum with sugar.

## After Your Child Is Born

- ☐ Wipe your baby's gums after each feeding and before bedtime with a soft cloth.
- ☐ Once a child's teeth appear, use a toothbrush to brush them with a smear of fluoride toothpaste.
- ☐ Take your child to the dentist when their first tooth comes in, but no later than their first birthday.
- ☐ Between ages 3 and 6, brush your child's teeth with a pea-sized amount of fluoride toothpaste.
- ☐ If your baby drops a pacifier, don't use your spit (saliva) to "clean" it. This could spread cavity-causing germs to your baby's mouth.
- ☐ Don't dip pacifiers in honey or sugar because this can lead to cavities. Honey can cause a serious illness (botulism) in infants.



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Be Legendary.™

<https://oral.health.nd.gov>



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To help your developing baby, eat healthy foods and avoid sugary drinks. Water is the healthiest drink. Most North Dakota communities add fluoride to their tap water to help prevent cavities for kids and adults.

Becoming a mom is something to smile about! The tips on the other side can keep your mouth — and your baby's mouth — healthy.

**Check the other side for tips to keep yourself and your baby healthy! →**

Sources include the National Institutes of Health; CDC; American Dental Association; American Academy of Pediatrics; and Children's Dental Health Project.

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### During Pregnancy

- ☐ Use your own toothbrush. Replace it every 3 months.
- ☐ Brush at least twice each day with a fluoride toothpaste.
- ☐ See a dentist. Cleanings and X-rays are safe and help keep your teeth healthy.
- ☐ Drink plenty of tap water to keep hydrated.
- ☐ Limit sugary drinks, sticky candies, and chewing gum with sugar.

### After Your Child Is Born

- ☐ Wipe your baby's gums after each feeding and before bedtime with a soft cloth.
- ☐ Once a child's teeth appear, use a toothbrush to brush them with a smear of fluoride toothpaste.
- ☐ Take your child to the dentist when their first tooth comes in, but no later than their first birthday.
- ☐ Between ages 3 and 6, brush your child's teeth with a pea-sized amount of fluoride toothpaste.
- ☐ If your baby drops a pacifier, don't use your spit (saliva) to "clean" it. This could spread cavity-causing germs to your baby's mouth.
- ☐ Don't dip pacifiers in honey or sugar because this can lead to cavities. Honey can cause a serious illness (botulism) in infants.



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