Evaluation of a Comprehensive Program Addressing Oral Health in Multiple, Diverse Community Settings



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BACKGROUND

Individuals who live rural, are low-income, are covered by Medicaid, have no dental insurance, and/or are American Indian/Alaska Native (AI/AN) present with significantly worse oral health and fewer dental visits than their peers in North Dakota. The traditional dental care model does not promote health equity for these individuals. The North Dakota Department of Health Oral Health Program has implemented a comprehensive program to achieve oral health equity. The Center for Rural Health is evaluating these efforts.

METHODS

The evaluation is multifaceted and employs review of statewide data systems, aggregate patient data, interviews with students and dental providers, training evaluations, and surveys of medical residents, dentists, and school personnel.

- 1. School-based sealant program (SEAL!ND)
- 2. Dental student rotations in Federally Qualified Health Centers (FQHCs)
- 3. Ensuring communities receive optimal levels of fluoridated water
- 4. Oral health data surveillance
- 5. Medical-dental integration

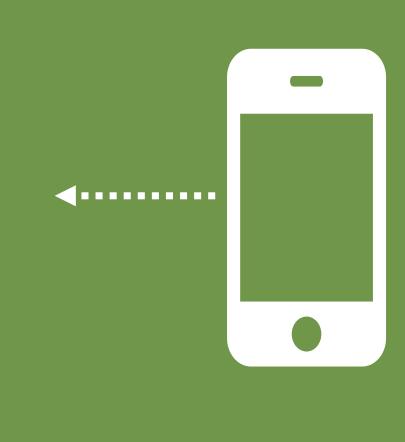
RESULTS

- SEAL!ND reached 97 schools during the 2018-2019 school year.
- The public health hygienist integrated into the medical setting saw 474 patients in 10 months.
- 95.8% of the population receives optimally fluoridated water.
- 1,998 kindergartners in 43 schools were screened during the 2018-2019 school year.
- Dental students completing rotations in a FQHC identified positive experiences with integrated care and complex case management. However, students indicated future salary and low dental loan repayment rates in the state would weigh into their decision about where to practice in the future.

Comprehensive oral health programs need to engage community partners and look for ways to address oral health equity outside of the traditional dental office.







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> These activities were funded by the Centers for Disease Control and Prevention and the Health Resources and Services Administration through grant awards with the North Dakota Department of Health Oral Health Program.

SEAL!ND Sealant Program:

- The biggest barrier to providing care was initial return of consent forms.
- Roughly one cavity is prevented for every 3.6 sealants placed
- 688 cavities were averted from the sealants placed in the 2018-2019 school year.
- SEAL!ND prevented \$53,320 in dental costs, or \$77.50 per avoided cavity, which is consistent with previous years.

Student rotations: In 2018-2019, 3 dental students:

Total	Restorative		Preventive		
patients	procedures	Exams	procedures	Endodontic	Extractions
246	128	22	21	3	49

Water fluoridation: CDC 2016

	Persons served	% of population served by	
Persons receiving	by community	community water systems	National
fluoridated H2O	water systems	receiving fluoridated H2O	rank
672,662	702,333	95.8%	7

Data surveillance: Fig. Oral Health Among North Dakota Kindergartners by Race & Ethnicity, 2018-2019 School Year

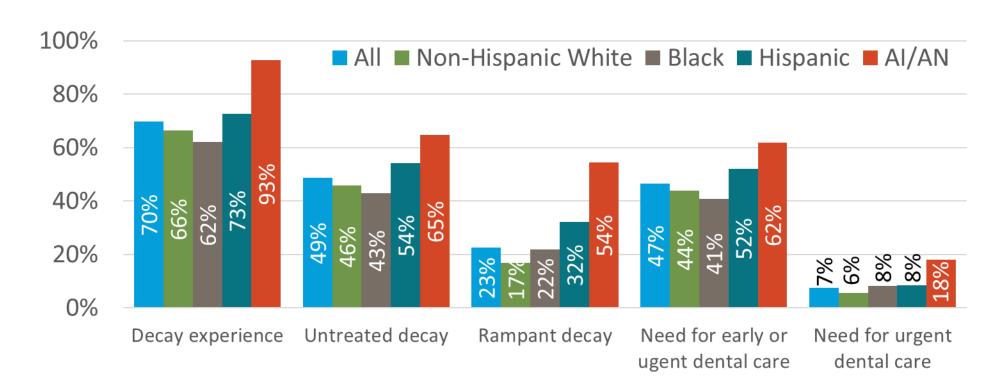
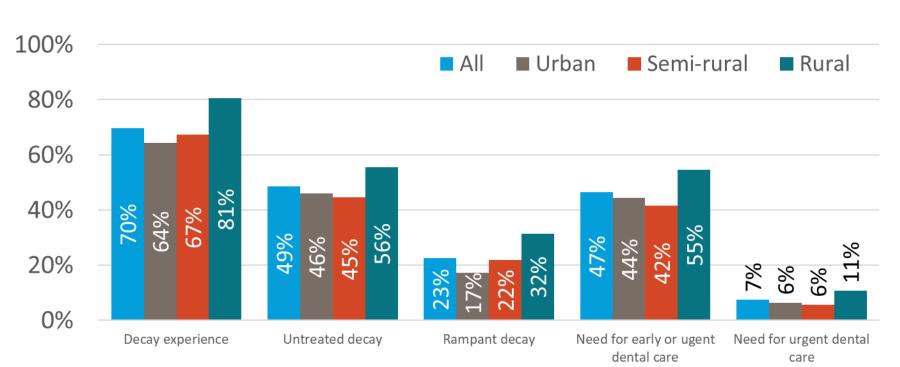


Fig. Oral Health Among North Dakota Kindergartners by Geography, 2018-2019 School Year



Medical dental integration:

Nov. 2018 – Aug. 2019

- Of the 435 patients, 185 received fluoride varnish and 411 received oral health education.
- Of the 187 referred to a dentist, only 38 (21%) followed through with scheduling a dental appointment/receiving needed dental treatment.
- Only one of six first-year residents had ever conducted a basic oral health screening.
- Pretest: Only two out of six residents indicated any level of confidence in their ability to identify common oral health conditions, and only two residents received any formal oral healthcare training in medical school.

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