



Educating the Oral Healthcare Workforce in North Dakota

This fact sheet is Number 7 in a series of analyses regarding oral health in North Dakota.

Only 12% of dentists and 8% of dental assistants are located in isolated rural North Dakota communities, where 22% of the State's population reside. As of March 2016, 17 counties in North Dakota had no practicing dentist. Inadequate access to, and utilization of, dental services has had a significant impact on the oral health status of rural, poor, Medicaid, and American Indian residents in North Dakota. While access and utilization of care are complex, multi-faceted issues, insufficient workforce and provider vacancies exaggerate concerns of dental access.

North Dakota's Oral Healthcare Workforce Needs

North Dakota has a lower dentist per population ratio than the national average (55.4 compared to 60.9 per 100,000). The rate is lower for all states without a dental school within the Northwest region of the U.S. See Table 1.

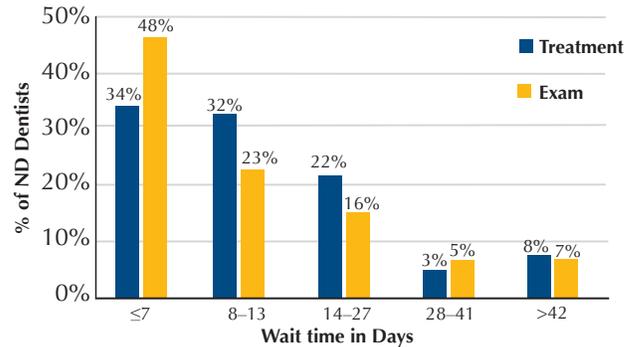
Table 1. Dentist to Population Ratios in the Northwest Region of the U.S. (2015)

	2013	2014	2015
South Dakota	54.1	53.9	53.6
Wyoming	53.0	55.3	54.1
North Dakota	54.5	54.7	55.4
Idaho	57.8	55.5	56.7
Montana	59.0	59.8	59.9
Utah**	65.2	63.3	62.9
Oregon*	68.9	68.0	69.1
Colorado*	68.7	68.9	69.7
Washington*	71.0	71.5	72.9
U.S.	60.5	60.3	60.9

* Number of Commission on Dental Accreditation accredited dental schools

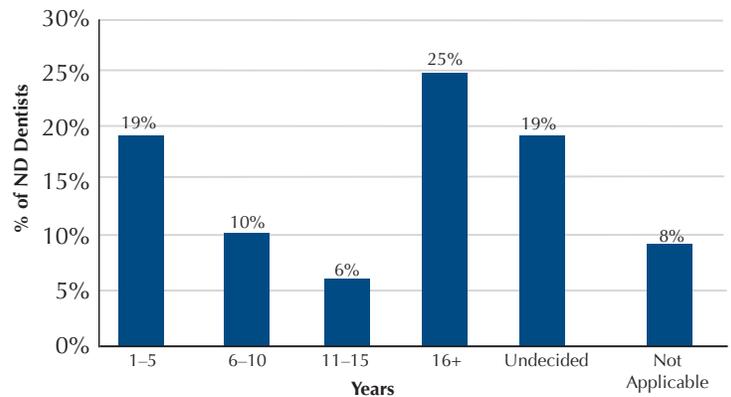
The issue of access in the state is exaggerated in rural communities. Because of the poor distribution and lower rates of oral health professionals in North Dakota, only 34% of practicing dentists reported that their patients wait less than one week when scheduling an appointment for needed treatment. Roughly 33% of those who need treatment in North Dakota wait between two and six weeks. See Figure 1.

Figure 1. Wait Time for Exam & Treatment



Of greater concern than the current rural and tribal access issues are the five, ten, and fifteen year projections for the state overall. During the last five years, the State has had a 3% average increase in the number of practicing dentists (419 in 2015); higher than the national average of 1.3%. However, 19% of those North Dakota dentists intend to retire in the next one to five years. Based on the 3% average increase (all held constant) North Dakota projects an additional 65 dentists over the next five years, though roughly 80 will have retired. See Figure 2. This mirrors the national trend in which 40% of all practicing dentists are age 55 or older. Because this is a national concern, North Dakota will be in competition with other states looking to grow their workforce as current providers retire.

Figure 2. Retirement Projections: ND Dentists



Oral Health Professional Schools

With no school of dentistry, North Dakota relies on dental graduates from Universities in either Minnesota (42% of all practicing North Dakota dentists) or Nebraska (22%). Conversely, though there are dental hygiene (DH) programs in Minnesota, a majority of the State's practicing hygienists

(61%) graduate from an in-state institution (North Dakota State College of Science). North Dakota State College of Science (NDSCS) also produces the greatest percentage of the registered dental assistants (DAs) in the state. When there are in-state oral health professional schools, the state retains the workforce.

Research reiterates that state-related public dental schools retain roughly 70% of their graduates.¹⁻² Dental schools in smaller, rural states typically produce graduates who are more likely to practice in rural areas.² Relying on out-of-state universities to supply the dental workforce creates competition. Some of the barriers in North Dakota include:

- No in-state tuition or reciprocity agreements to encourage North Dakota students to pursue dentistry.
- Insufficient residency opportunities for dental students to practice in the state.
- A more competitive job market with North Dakota at a greater disadvantage than the states producing and retaining the dental graduates.

NDSCS is the only educational institution in the state providing dental professional degrees and certificates. NDSCS offers a DA certificate, DA A.A.S. degree, and a DH degree.³

Oral Healthcare Workforce Vacancies

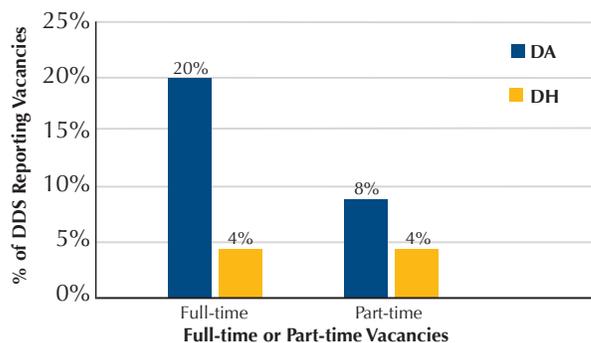
While NDSCS offers an in-state opportunity for North Dakota residents to earn an allied dental degree, both the DH and DA programs have limited availability for student admission. In 2014-15, the college graduated 14 DAs and 23 DHs. Unfortunately, the number of graduates do not reflect the state demand. See Table 2, provided by NDSCS.

Table 2. NDSCS Allied Dental Graduates 2014-15

	Graduates	ND Jobs	Placement Rate
DA	14	49	100%
DH	23	38	100%

Similarly, more dentists in North Dakota report both full-time and part-time vacancies for DAs than vacancies for DHs. See Figure 4. While there is little demand for DHs, a majority of those who are practicing in North Dakota are only permitted to perform 8 of the 15 procedures identified in the dental licensure survey.

Figure 3. Allied Dental Professional Vacancies in ND



The state vacancy rate for dentists is unknown. However, based on 2014 population estimates, roughly 50,789 state residents live in counties with no dentist. It is unknown how many of these counties have dental vacancies (practices hiring for a dentist) and how many simply have no infrastructure necessary for a dental clinic.

Conclusions

North Dakota has a need for a larger oral health workforce with high vacancy rates for DAs, and an inadequate distribution of oral healthcare services. There is need to both increase the current workforce to ensure existing oral health systems are sufficiently staffed, and to identify innovative models to provide oral healthcare for the residents located in counties with no dental services.

Recommendations

North Dakota should focus on innovative solutions to provide oral healthcare for the residents located in rural and tribal communities not currently served by a dental clinic. This could include utilization of DHs when possible. The State permits DHs to provide care under general supervision, creating a workforce that, if utilized, could provide reimbursable, preventative care without a dentist present in high need communities outside of the dental office. To avoid issues of access that could result with the retirement of 35% of practicing dentists over 15 years, the profession needs to be made affordable and accessible through border state reciprocity and residency agreements, encouraging the number of North Dakota applicants. It is imperative to also identify opportunities to grow the DA workforce in order to ameliorate the current workforce shortage.

Data

Data were derived from the American Dental Associations licensure Masterfile and the state Dental Workforce Survey. The North Dakota Dental Workforce Survey data were collected through a Cooperative Agreement between the Centers for Disease Control and Prevention and the North Dakota Department of Health (CDC-RFA-DP13-1307). The content of this publication is solely the responsibility of the authors and does not necessarily represent the official views of the Centers for Disease Control and Prevention or the official views of the North Dakota Department of Health.

1. Lin, H., Rowland, M., & Fields, H. (2006). In-state graduate retention for U.S. dental schools. *Journal of Dental Education*, 70(12).
2. Vujicic, M. (2015). Where do dental school graduates end up locating? *JADA*, 146(10).
3. www.ndscs.edu/academics/things-to-know-academics/academic-clusters-departments/allied-dental-education/options-allied-dental-education/.

For more information

Visit the CRH webpage for additional oral health publications and information. ruralhealth.und.edu/what-we-do/oral-health

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