Dental Workforce in Rural and Urban North Dakota

In 2014, the University of North Dakota Center for Rural Health (CRH) received funding from the Pew Charitable Trusts to explore oral health care access and utilization in North Dakota. The following are data that illustrate issues of access. While utilization of dental care may be low as a result of poor access, it is important to note that access alone will not wholly improve oral health care utilization among the most disparate populations.

Dentist Workforce

North Dakota has a lower dentist (DDS) to population ratio than the national average, and equal to or lower than the three states responsible for graduating a majority of the state’s practicing dentists. Roughly 70% of all licensed North Dakota dentists graduated from universities in Minnesota, Nebraska, or Wisconsin.

Figure 1. Percent of North Dakota Counties with 0, 1, 2-4, and 5+ DDS

In 2016, 30% of the counties were designated as dental health professional shortage areas:

- Billings
- Dunn
- Golden Valley
- Kidder
- McKenzie
- Pierce
- Griggs
- Mountrail
- Towner
- Steele
- Benson
- Slope
- Nelson
- Grant
- Rollette
- Hettinger

Each of the above counties, and those with no DDS in the map below, were defined as rural by the U.S. Census Bureau.

Table 1. Dentist Ratios & Percent of DDS/DMD* Graduates in 4 states

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* DDS/DMD are both equivalent dental professional degrees

Likely a result of lower access to care than the national average, in 2013 North Dakota DDS also reported being the busiest in the nation with only 5% self-reporting as not busy enough; the national average was 33%.

As of March 2016, 17 of the 53 North Dakota counties had no practicing DDS, eight had one, and 15 had between two and four. Nearly 62% of all practicing DDS were located in the four largest counties: Burleigh, Cass, Grand Forks, and Ward.

Figure 2. Number of DDS in North Dakota Counties

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Rural Dental Workforce
As of March 2016, the state had 405 dentists in practice, 644 dental hygienists, and 590 dental assistants. All three provider types were disproportionately located in urban communities.

- Isolated rural communities accounted for 22% of the total population in North Dakota and only 12% of practicing DDS.
- While 50% of the population were located in urban communities, 61%, 60%, and 68% of dentists, dental hygienists, and dental assistants respectively practiced in urban communities.

Figure 3. Percent of Dental Workforce

![Figure 3](image)

The black line (–) indicates the % of the state population within that geographic category.

Conclusions
North Dakota dentists are the busiest in the nation, are disproportionately located in urban communities and counties, and are older than other dental support professionals (hygienists and assistants). Roughly 31% of practicing North Dakota DDS graduated before 1986 with 27 the average age at graduation. This is corroborated by the 2013 survey of North Dakota DDS in which 35% of those practicing intended to retire within 15 years (by 2028).

Workforce issues are exaggerated by:

- Dental Hygienists not being allowed to practice at the top of their scope of work.
- Insufficient dental residency programs in the state, especially in rural communities.
- Lack of a dental school in the state.
- No tuition reciprocity agreements with surrounding dental schools.
- The limited availability of student spots in schools of dentistry nationally.

Figure 4. Percent of Dental Professional Graduates by Graduation Year

![Figure 4](image)

Data
Data were provided by the North Dakota Board of Dental Examiners and the American Dental Association, Health Policy Institute analysis of ADA Masterfile – copyright © 2016 American Dental Association. Shortage designations are available at [bhpr.hrsa.gov/shortage/hpsas/](https://bhpr.hrsa.gov/shortage/hpsas/). The North Dakota survey of DDS workforce is completed by the state Department of Health. Rural counties were defined by the U.S. Census Bureau (2013), Metropolitan and Micropolitan Statistical Areas and Definitions (Data file). Retrieved from [www.census.gov/population/metro/](https://www.census.gov/population/metro/).

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