



Medical – Dental Integration in North Dakota

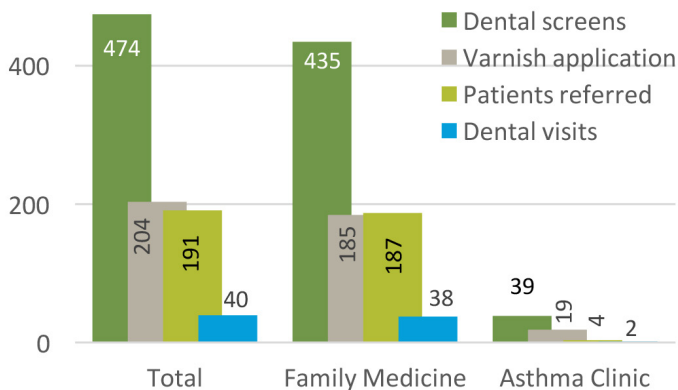
With funding from the Health Resources and Services Administration, the North Dakota Department of Health Oral Health Program hired a public health hygienist (PHH) at the University of North Dakota’s (UND’s) Center for Family Medicine located in Bismarck. This integrated care model provides dental screenings, fluoride varnish application, dental referrals and care coordination for patients in the primary care setting while also educating medical residents and direct care staff quarterly on the direct relationship between oral health and overall health.

Patients Served

The PHH began seeing patients at the Center for Family Medicine in November 2018 and added patients attending the asthma clinic in July 2019. Between November 2018 and August 2019, the PHH:

- Completed dental screens for 474 patients
- Applied fluoride varnish for 204 patients
- Referred and scheduled dental visits for 191 of those 474 patients
- Of those referred for care, 40 (21%) attended their scheduled dental visit

Figure 1. Patients Served by Clinic Type, 2018-19*



*The Center for Family Medicine reports data for nine months of service provision while the asthma clinic reports only two.

Patients screened in both the asthma clinic and the Center for Family Medicine were predominantly younger than 20 and had private insurance (BlueCross & BlueShield), see Table 1 for more details. In addition to the dental services provided at the Center for Family Medicine, of the 474 patients screened:

- 411 received oral health education
- 369 received dental supplies
- 264 were given an oral health brochure

Table 1. Patient Demographics by Clinic Type

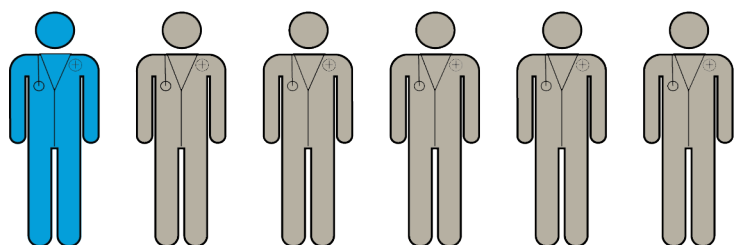
	Family Medicine	Asthma Clinic
Sex		
Male	48.3% (210)	69.2% (27)
Female	51.7% (225)	30.8% (12)
Age		
Ages 0-9	35.2% (153)	56.4% (22)
Ages 10-19	28% (122)	43.6% (17)
Ages 20-39	20.5% (89)	0% (0)
Ages 40-59	13.1% (57)	0% (0)
60+ years	3.2% (14)	0% (0)

Medical Residents’ Experiences

In addition to meeting the oral health needs of patients receiving care at the Center for Family Medicine, the PHH also provided quarterly dental education to medical residents and other care staff. Data were collected from six new residents who had yet to begin work with the Center for Family Medicine in July 2019. A post-assessment was completed by five medical residents who had completed the program in June 2019 (they began their residencies in July 2016).

Pre-Assessment Results

Only one first-year resident had ever conducted a basic oral health screening.



Every resident indicated that oral health is an important factor in overall health. However, only one resident believed that integrating oral healthcare within family medical settings was very important.

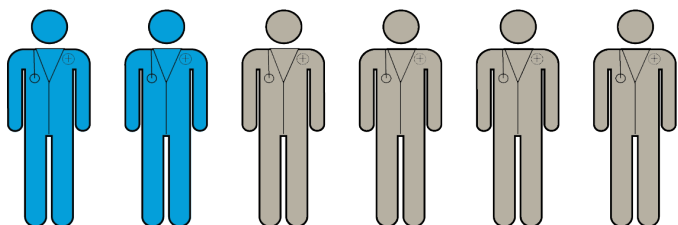
First-year medical students were also generally unaware of the correlation between oral health and the following diseases:

- Cerebrovascular disease
- Low birth weight
- Coronary artery disease
- Diabetes

The six first-year medical residents indicated knowledge of the correlation between oral health and the following:

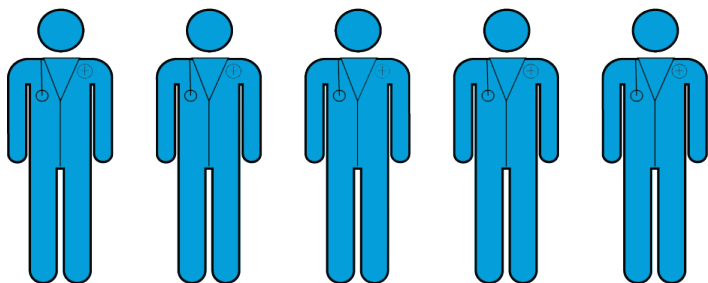
- Substance use
- Tobaccos use
- Human papilloma virus (HPV)
- Aspirational pneumonia

Only two 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.



Post-Assessment Results

All third-year medical residents agreed that the seminars provided by the PHH were positive and that oral health is an important factor in overall health.



Upon completing their medical residencies, all students indicated that they had conducted at least a few oral screenings while at the UND Center for Family Medicine.

All outgoing residents also indicated confidence in their ability to identify:

- Gingivitis
- Cavities
- Periodontal disease
- Gingival hyperplasia

Conclusions

The medical-dental integration pilot project sponsored by the North Dakota Department of Health Oral Health Program, in partnership with the UND Center for Family Medicine, had significant reach in year one, providing dental screens for 474 patients in 10 months. Not only did the program increase access to dental screenings, fluoride varnish, and oral health education for patients, it increased oral health knowledge for medical residents practicing at the facility. Third-year medical residents found the seminars provided by the PHH to be beneficial and they left the program with the confidence to identify several oral health conditions.

Data

Data were provided by the North Dakota Department of Health Oral Health Program and in the evaluation report prepared by the North Dakota State University Center for Social Research and funded by the Health Resources and Services Administration DP1814.



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For More Information

Visit the North Dakota Oral Health Program webpage at oral.health.nd.gov

Visit the Center for Rural health webpage at ruralhealth.und.edu/what-we-do/oral-health

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