

## Benefits of Medical-Dental Integration for Medical Residents, Providers, and Patients



PRESENTER:  
Vanessa Bopp, RDH  
[Vanessa.bopp@UND.edu](mailto:Vanessa.bopp@UND.edu)

### Background

Integration of dental providers into primary care improves access to dental care for underserved populations and reinforces the fact that oral health is not separate from overall health. The North Dakota Department of Health (NDDoH) Oral Health Program placed a public health hygienist (PHH) into the University of North Dakota (UND) Center for Family Medicine (CFM) residency program to address patients' oral health needs and to educate medical residents on the importance of clinical dental screenings and referrals.

### Methods

Medical residents are surveyed before and after participating in the program. De-identified patient data measures the clinical reach of the program by tracking patients screened, referred, and those with a dental home.

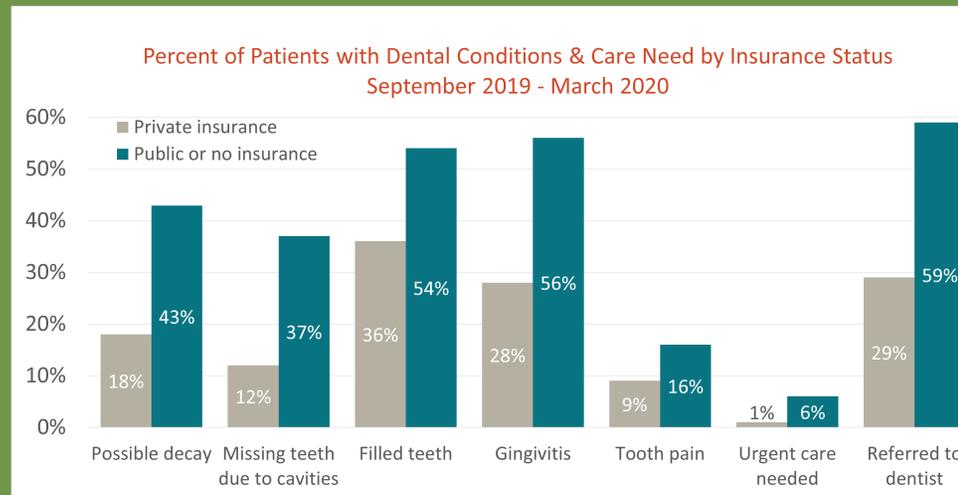
### COVID-19: Pandemic Response

On March 18, 2020, the UND CFM began operating with only essential staff due to the coronavirus (COVID-19) pandemic. As a result, the PHH halted patient education and services in the clinic and, as an employee of the NDDoH, was reassigned to respond to COVID-19 activities. On July 20, 2020 the PHH welcomed the new class of medical residents at the UND CFM. At that time, the PHH made herself available to all residents and clinical providers by phone. She shared she was available to answer general questions around patient oral health until she could return to care provision.

### Results: Services Provided

The PHH began seeing patients at the UND CFM in November 2018 and added patients attending the asthma clinic in July 2019. Year one of the grant included ten months of data for UND CFM and two months of data for the asthma clinic. Year two of the grant includes only 6.35 months of data because direct-care services stopped on March 18, 2020. The number of services provided in years one and two cannot be compared because they occurred over variable timeframes. However, in year one, the PHH provided 474 dental screenings over ten months, for an average of **47 screenings a month**. In year two, the PHH provided 298 dental screenings over 6.35 months for an average of **47 dental screenings a month**. Productivity was nearly identical.

# On average, the Public Health Hygienist, working in a Family Medical Center completed oral health screens for 47 patients per month providing oral health education, fluoride varnish application, and dental referrals as needed.



Take a picture to access evaluation reports

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.

### Dental Services Provided through Medical-Dental Integration

Of the 298 patients from both the main clinic and the asthma clinic who were screened by the PHH:

- 61% received an educational brochure.
- 95% were given verbal oral health education.
- 77% received dental supplies.
- 67% received an application of fluoride varnish.
- 37% were referred to a dentist.

### Medical Resident Training

Six medical residents completed a pre-test in 2019, and eight completed the survey in 2020, for a total of 14 first-year medical residents. The data represent the experience of all 14 first-year residents.

- Roughly 36% (5/14) had received formal training in medical school related to oral health care.
- Only four (29%) had ever conducted a basic oral health screening.
- More than half of first-year medical residents (57% or 8/14) strongly agreed that oral health is an important factor in overall health; an additional 36% (5/14) agreed. Only one student strongly disagreed.

When asked to identify their level of comfort identifying a variety of oral health concerns, more medical residents were confident identifying gingival hyperplasia, abscesses, and candidiasis with fewer confident identifying cavities, periodontal disease, and gingivitis.

The PHH provided quarterly dental education to medical residents and other care staff in 2020. These trainings are rated positively by attendees.

QUESTION	Jan. Training: Child Oral Health (n=6)	Oct. Training: Geriatric Oral Health (n=9)	Aug. Training: Oral health for Women (n=13)
	Mean	Mean	Mean
The training was relevant to my career.	4.67	4.44	4.0
The training/event was well organized.	4.83	4.33	4.58
The materials presented will be useful to me in my work.	4.67	4.33	4.08
The presenter was knowledgeable about the subject matter.	4.83	4.33	4.92
The training enhanced my skills in this topic area.	4.5	4.22	4.0
I would recommend this training to my colleagues/peers.	4.5	4.11	4.17

### Conclusion

Integrating a member of the dental team into primary care provides capacity to screen, educate, refer, and apply fluoride varnish to at-risk populations while simultaneously better preparing medical providers to identify oral health concerns. There is a need to increase dental visit rates post-referral and to begin application of dental sealants in clinical settings.



AUTHOR:  
Shawnda Schroeder, PhD, MA  
[Shawnda.Schroeder@UND.edu](mailto:Shawnda.Schroeder@UND.edu)

