

## Survey of Federally Qualified Health Centers to Understand Participation With Dental Residency Programs and Student Externship Rotations

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### Introduction/Background

In 2015, FQHCs provided onsite dental services to approximately 5.2 million people, during more than 13 million patient visits. In that year, FQHCs employed more than 4,100 full-time equivalent dentists, more than 1,900 full-time equivalent dental hygienists, and more than 8,500 full-time equivalent dental auxiliary personnel to provide oral health services. Recruiting and retaining a sufficiently sized oral health professional workforce is essential for FQHCs to respond in a timely manner to ever increasing demand from safety net patients for preventive care and routine treatment services, as well as emergency restorative and surgical services. Recruiting dentists for work in FQHCs is thought to be generally problematic for several reasons, including that work in FQHCs may seem less financially attractive to new dentists with high student debt burdens compared to private practice, and the rural, remote, and urban locations of many health centers are sometimes considered less desirable places in which to live and work than other areas.

In 2016, the Oral Health Workforce Research Center at the Center for Health Workforce Studies, under its cooperative agreement with HRSA, conducted a study to describe FQHCs' participation with dental education and dental residency programs as clinical rotation sites for dental student externs and/or residents. Of special interest to the research was whether health centers subsequently employed any dental students and/or dental residents who had completed clinical rotations in the FQHC.

### Methods

An extensive literature review was conducted to aid in determining pertinent questions for inclusion on the survey instrument. The instrument included nineteen questions with pre-defined response options and one narrative question. The survey asked a core set of questions but also employed a skip logic design that directed respondents to different questions depending on the response to a particular item.

The number of FQHCs in the survey solicitation (1,275) matched the number of federally designated FQHCs in 2014. Ninety-seven emails were returned as undeliverable, subsequent to the initial solicitation. The number of FQHCs that actually received the request to participate was 1,178. Reminder emails were sent to non-respondents approximately every two to three weeks. At survey closure in August 2016, 304 FQHCs had completed the survey for a response rate of 25.8%. Survey data was compiled, cleaned, and analyzed using SAS v.9.3. The characteristics of oral health service delivery in FQHCs and participation with dental student education and residency programs were evaluated using descriptive statistics, including frequency, percentage, mean, range (minimum and maximum values), median, and interpercentile range (25th and 75th percentiles).

### Conclusions and Policy Implications

- 1) The participation of FQHCs as clinical training sites for dental students and residents is generally beneficial to the health centers, and provides a pipeline for hiring new dentists.
- 2) Benefits to the FQHCs from hosting dental residents and/or student externs included an increased capacity to meet patients' needs, the opportunity to recruit new dentists, flexibility in scheduling patients in the dental clinic, and positive contributions to staff retention.
- 3) Clinical experiences in community health centers are important for producing new dental professionals with an interest in serving those with limited access to oral health care.
- 4) Completing rotations in public health settings educates dental students on the complex socioeconomic and demographic factors that affect the oral health of many of the underserved.
- 5) The most common reasons for not participating in dental education programs were an insufficient number of dental operatories, inadequate staff to supervise, and the absence of a sponsoring academic program with which to collaborate.

The analysis included tabulations and cross tabulations of several variables. The geographical distribution of respondent FQHCs to all FQHCs was examined using Chi-square testing. Chi-square, T-test, and Wilcoxon signed-rank tests were employed to compare oral health service delivery in the FQHCs participating with a dental residency or student externship program(s) to those not participating with a dental education program. Statistical significance was defined as  $p < 0.05$  using two-tailed tests.

## Findings

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- Only 14.7% of FQHCs responding to the survey participated in dental residency programs, while 39.1% of FQHCs participated in extramural service learning through dental student externship programs.
- The benefits to the FQHC from hosting dental residents included an increased capacity to meet the oral health needs of the FQHC's patients (89.7%), the opportunity to recruit new dentists to the FQHC (89.7%), and flexibility in scheduling patients in the dental clinic (61.5%).
- The 3 most commonly cited benefits of hosting dental student externs at an FQHC were the opportunity to recruit new dentists to the FQHC (74.0%), an increased capacity of the FQHC to meet the oral health care needs of its patients (62.5%), and a positive contribution to staff retention (44.1%).
- Fifty-five percent of FQHCs sponsoring dental residency rotations had hired at least 1 new dentist following that dentist's completion of a dental residency at the clinic.
- The mean number of dentists hired after completion of a dental residency at the clinic was 1.8, and the range was 0 to 10 new dentists.
- The mean number of dentists hired after completion of a dental student externship in an FQHC was 1.6. The range was 0 to 50 dentists.
- The structural capacity of the FQHC impacted participation in dental residency or dental student externship programs. FQHCs hosting a dental education program had a significantly higher average number of full-time dentists providing services (5.03) compared with FQHCs without a dental education program (2.69).
- FQHCs hosting a dental externship and/or residency program had a significantly higher average number of fixed dental operatories co-located with the primary care clinic (15.48 vs 8.31), or in a separate location from a primary care clinic (14.49 vs 9.28), compared with those that did not host any programs.
- FQHCs hosting a dental education program had a significantly higher prevalence of oral health services provided to children and/or adults compared with those who did not.
- There were significant positive associations between the FQHC's hosting of students and residents and the prevalence of providing preventive, diagnostic, restorative, oral surgery, emergency/walk-in, and denture services.
- There were no associations for screening, referral, or voucher services for patients in FQHCs.

## Conclusions

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Dental student externships and dental residencies serve as a pipeline for FQHCs to hire new dentists. It appears that participation in these clinical rotations is alleviating some of the difficulties encountered by FQHCs in recruiting dentists to work in the safety net. Experiences in safety net settings are valuable teaching tools for new dentists who have the opportunity, regardless of post-graduation practice choice, to include safety net patients in their private or public practice of dentistry.