The Utilization of Dental Auxiliary Staff to Increase Access to Oral Health Care in Rural Areas: Filling an Unmet Need in Rural Pennsylvania

Policy Brief

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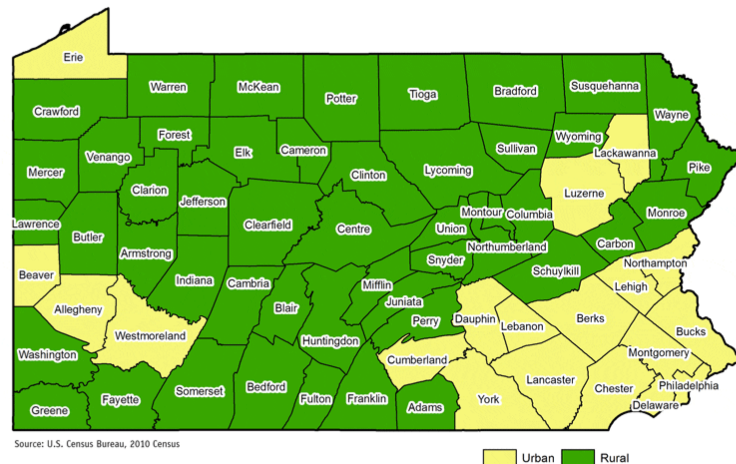
Oral health is a critical component of overall health status. Poor oral health can exacerbate systemic conditions including diabetes and cardiovascular disease and may lead to inadequate nutrition, further compromising systemic health.

Despite developments in oral health knowledge and practice, disparities still exist in rural communities and with low-income and other vulnerable populations such as minorities. These disparities are evident in oral health access, utilization, and health outcomes in rural America. This policy brief examines access to oral health care in Pennsylvania and the impact that integrating dental auxiliary staff can have in addressing oral health unmet need in rural areas.

Introduction

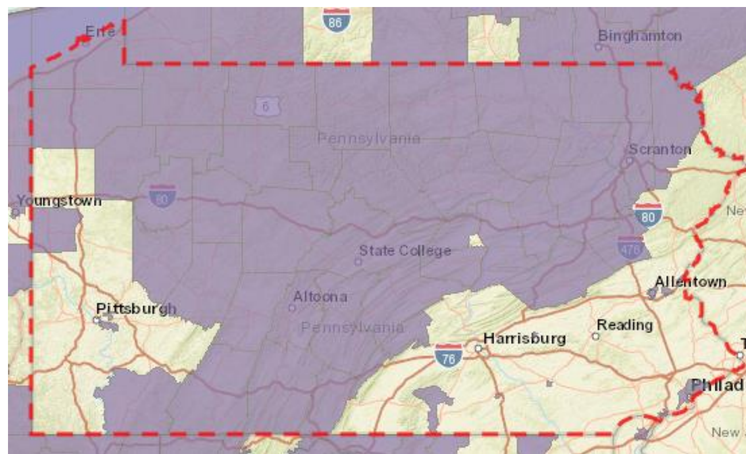
Although nearly 72 percent of Pennsylvania's 67 counties are considered to be rural, only 19 percent of the state's dentists practice in these areas. Many of Pennsylvania's 48 rural counties are designated as dental health professional shortage areas (DHPSAs) by the Health Resources and Services Administration (HRSA). Figures 1 and 2 depict the state's rural and urban counties and designated DHPSAs.

Figure 1: Pennsylvania's Rural and Urban Counties



Center for Rural Pennsylvania[1]

Figure 2: Pennsylvania Dental Health Professional Shortage Areas (DHPSA)



DHPSAs are shaded in gray. HRSA Data Warehouse[2]

According to the *2015 Pulse of Pennsylvania's Dentist and Dental Hygienist Workforce Report*, published by the Pennsylvania Department of Health, there were 47.1 dentists per 100,000 residents providing patient care in Pennsylvania in 2015.[3] In rural areas, however, the rate of dentists providing patient care was only 33.6 per 100,000 residents, as compared to a rate of 52.1 per 100,000 residents in urban counties. Six of Pennsylvania's rural counties have fewer than 20 dentists per 100,000 population, including Cameron, Forest, Juniata, Potter, Sullivan, and Susquehanna counties.

Dental offices often utilize a team-based approach to provide patient care, employing several dental auxiliary staff to assist with treatment and to provide preventive services. Dental auxiliary staff is defined as any member of the dentist's team who provides support and assists with treatment. Dental auxiliary staff may include dental assistants and dental hygienists.[4]

With a shortage of dentists, particularly in rural areas, auxiliary staff can extend the reach of a dental office, expanding care to additional patients, particularly those who reside in rural areas. It is important to understand the role of each member of the dental team and determine how each member can best contribute to patient care.

Education, Certification/Licensure and Scope of Practice

While education, certification, and licensure requirements for dental auxiliary staff and the job titles for those staff, vary from state-to-state, many similarities exist. This section discusses the education, certification, and licensure of dental assistants, expanded function dental assistants (EFDAs), and registered dental hygienists (RDHs) in Pennsylvania.

Dental Assistants

Dental assistants in Pennsylvania are not required to have any formal education.[5] They can be trained on the job or acquire knowledge and skills through technical education programs at high schools, vocational and technical schools, and community colleges. Dental assistants may be certified through the Dental Assisting National Board (DANB); however, this is not mandated and there are no state-based licenses or certifications for dental assistants in Pennsylvania. Under the direct supervision of a licensed dentist, dental assistants may greet and seat patients and assist the dentist during procedures. With certification through the DANB, they can expose radiographs.[6] Dental assistants also can complete disinfection and sterilization processes and set-up dental operatories. Dental assistants are not required to complete any continuing education, beyond what the Pennsylvania Department of Environmental Protection (DEP) requires for those who hold a radiography certification.

Expanded Function Dental Assistants

Expanded Function Dental Assistants, known as EFDAs, have several options for training. They may obtain an Associate's Degree from an EFDA program at a two-year college or institution or complete an EFDA certification program which includes at least 200 hours of clinical and didactic instruction.[5] In both cases, the college, institution or program must be accredited by an agency approved by the U.S. Department of Education's Council on Postsecondary Accreditation.[5] The third way that an EFDA may be certified in Pennsylvania is to graduate from a dental hygiene program accredited by the Commission on Dental Accreditation (CODA) where at least 75 hours of clinical and didactic instruction was completed in restorative functions.[5] Prior to state certification, the EFDA must pass a state-accepted written board exam. In Pennsylvania, under the direct supervision of a dentist, EFDAs may place and contour restorative materials, polish coronally, administer fluoride treatments, and take impressions of

teeth for athletic appliances.[7] State-certification must be renewed biennially, the same renewal cycle as dentists and dental hygienists.

Dental Hygienists

Dental hygienists must graduate from a CODA-accredited dental hygiene school where the course of study consists of a minimum of two years (32 weeks/year, 30 hours/week).[5] Students receive didactic and clinical instruction in an accredited dental hygiene program. Some programs may be longer than two years; however, they must be at least two years in length to meet specifications for licensure. In addition to proof of graduation from an accredited dental hygiene program, dental hygienists must show proof of satisfactory completion of regional and national board examinations. Regional board examinations typically require both didactic and clinical components while the national board examination is a written exam. In Pennsylvania, dental hygienists must provide proof of graduation from an accredited school and proof of successful completion of both board examinations in order to apply for licensure. Licensure must be renewed biennially and registered dental hygienists (RDHs) are required to complete and maintain documentation of at least 20 hours of continuing education in each renewal cycle.

In Pennsylvania, RDHs may place subgingival agents (under direct supervision only) and remove deposits, including calculus, excessive (flash) restorative material, and stain, both sub- and supragingivally. They may evaluate patients, collecting data and identifying dental hygiene care needs, including the exposure of radiographs. Dental hygienists also can apply fluoride as well as other recognized topical agents for the prevention of oral disease, apply sealants, and take impressions for athletic appliances. These procedures must be performed under the supervision of a dentist, either direct or general (indirect).

Dental hygienists are permitted to administer local anesthesia under the direct supervision of a dentist, provided they submit proof of necessary education in local anesthesia administration to the Pennsylvania's State Board of Dentistry. In turn, they are issued a local anesthesia permit. This permit must be renewed biennially and proof of completing at least three (3) continuing education credits in local anesthesia and or/pharmacology is required.

Public Health Dental Hygiene Practitioners

Nearly a decade ago, a new certification for RDHs was created in Pennsylvania. While this certification does not expand a dental hygienist's scope of practice, it does allow dental hygienists to practice without the direct supervision of a dentist, in select "public health" settings. This gives patients direct access to preventive dental services. In order to work without the supervision of a dentist in these designated locations, registered dental hygienists must obtain a Public Health Dental Hygiene Practitioner (PHDHP) certificate from the state by submitting documentation of at least 3,600 practice hours under the direct supervision of a dentist and submit proof of professional liability insurance. PHDHPs must complete five (5) hours of continuing education related to public health with each biennial licensure renewal cycle. PHDHPs are permitted to perform the same procedures as a registered dental hygienist, without supervision or direction from a dentist, with the exception of the placement of subgingival agents and the administration of local anesthesia.

Workforce

According to the *2015 Pulse of Pennsylvania's Dentist and Dental Hygienist Workforce Report*, 5,993 dentists provided direct patient care in Pennsylvania at the time the 2015 licensure renewal survey was administered.[3] Dentists providing direct patient care comprised 79 percent of dentists participating in the survey. Of those, 4,604 were reported to be general dentists. Only 990 general dentists were practicing in Pennsylvania's 48 rural counties while 3,614 general dentists were practicing in Pennsylvania's 19 urban counties. At the same time, the report indicates that 5,937 RDHs were providing direct patient care in Pennsylvania, comprising 80 percent of all RDHs responding to the licensure renewal survey. In 2015, there were 1,337 dental hygienists practicing in rural counties while there were 4,598 dental hygienists practicing in urban counties. Rural Forest and Cameron counties were reported to have fewer than six practicing general dentists and no practicing dental hygienists. Rural Fulton and Sullivan counties have fewer than six general dentists and fewer than six dental hygienists. Juniata and Potter counties (both rural) have fewer than six general dentists, but more than six dental hygienists.

In 2015, there were 115 PHDHPs practicing in 43 counties. As of August 2018, there are more than 823 PHDHPs certified in Pennsylvania. According to the *Pulse Report*, PHDHPs were overwhelmingly practicing in urban counties (66 percent of respondents).

While the economic impact of the use of dental auxiliary staff has not been widely studied, the American Dental Association (ADA) released a study in 2009 that examined the economic impact of the use of expanded duty dental auxiliaries in Colorado.[8] One of the primary goals of this study was to determine the effects of the delegation of duties on the output and efficiency of dental offices. The researchers found that delegation of duties to dental auxiliary staff positively impacted gross billing and net income, as well as, patient visits, efficiency, and value-added care. All findings were statistically significant and the effects of delegation of duties were positively related to the level of delegation. The researchers suggested that delegation of duties to auxiliary staff could help to address access to care disparities while noting that more dentists need to be trained to effectively utilize dental auxiliaries. In a 2018 article, Gordon Christensen stresses the importance of utilizing dental auxiliary staff in effort to increase service to patients as well as practice revenue.[9]

Discussion

As a dental care team, if all members of the team work to the full extent of their licensure, dental practices can accommodate larger volumes of patients. The ability to care for additional patients will assist rural residents in accessing dental care close to home and will increase the financial viability of rural dental practices. As compared to dentists, dental auxiliary staff have fewer responsibilities, devote fewer resources completing their professional education, and are compensated accordingly. The ability for a dental office to treat more patients, while keeping overhead costs relatively low, can contribute to financial stability. Greater financial stability due to the ability to accommodate additional patients will increase rural practices receptivity to seeing and treating patients with Medicaid. Medicaid reimbursement is often lower than reimbursement through commercial insurance plans, all of which typically reimburse only a certain percentage of the office's fee schedule.

While some states limit the number of dental hygienists a dentist can supervise at one time, Pennsylvania does not. If each practicing full time dentist worked with at least two full time dental hygienists, they could double the number of patients to which care is provided. Further, if each dentist

employed at least one EFDA and two dental assistants, the volume of patients being seen for restorative services will increase. The dentist can prepare teeth for restorations and remove caries, while the EFDA can place the restorative material. The dental assistants can work with both the dentist and the EFDA, checking in patients, turning over and setting up operatories, and assisting chair-side during procedures.

While the dentist is completing patient exams for patients in the dental hygiene operatories, dental hygienists with a local anesthesia permit can prepare patients in the dentist's operatory for restorative procedures by administering local anesthesia when necessary. PHDHPs could expand the geographic reach of a rural dental office. A PHDHP, who may or may not be affiliated with the dental office, could screen patients and provide preventive services off-site, referring to the rural dental practice for a dental examination and any necessary restorative treatment. An affiliation with a dental office would allow for the seamless exchange of patient record data.

Summary

It is imperative to utilize all staff to the fullest extent of their licensure. Utilization of dental auxiliary staff can extend the reach of dental offices. Not only is this a cost-effective model of care, it also allows more patients to be treated and improves access to care. Improved access to care is especially important in rural areas where the majority of DHPSAs are located. Increased access to oral health care will help improve not only the patient's oral health but also their systemic health.

References

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