Pediatric Workforce Issues

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KEYWORDS

• Health personnel • Pediatric dentistry • Allied health personnel
• Dental care for children • Dental care delivery

KEY POINTS

- There are many new workforce models being deployed to address children's oral health.
- Evaluations of these models are variable, showing safety and effectiveness but rarely impact on health outcomes.
- Health professions regulatory barriers exist that restrict the ability to fully deploy new models.

INTRODUCTION

According to the US Surgeon General, dental disease is among the most prevalent health conditions for children, and large disparities in oral health status and access to oral health services exist among children in the United State.[1] In 2003, the *National Call to Action to Promote Oral Health* outlined the need to increase the diversity, capacity, and flexibility of the dental workforce in order to better meet children's oral health needs and reduce disparities.[2] Assessing progress toward the *Call to Action*, in 2009 the authors found only modest gains in workforce strategies focused on pediatric patients, and major challenges remaining.[3] In 2009 the Institute of Medicine held a workshop on the sufficiency of the oral health workforce for the coming decade, which outlined the status of the dental workforce, and highlighted for the first time the multitude of new workforce models being proposed and tried.[4] A special issue of the *Journal of Public Health Dentistry* entirely focused on the contributions of workforce innovations to delivery system redesign followed, with one of the key messages being that workforce design should be tied directly to meeting the patient care needs, with special attention to reducing disparities in oral health care, and in oral health.[5] As

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2017 begins, progress has been documented in children's use of care primarily because of improvements in coverage through Medicaid, the Children's Health Insurance Program (CHIP), and the Affordable Care Act (ACA).[6,7] This article updates and synthesizes the evidence on clinical pediatric workforce models and discusses future directions and implications for health policy.

METHODOLOGY

This study reviews journal publications, reports, and issue briefs regarding evidence-based approaches to enhancing the workforce available to address children's oral health. The article organizes the findings into (1) new models in the dental field, including existing and new providers; and (2) workforce models outside the dental field.[3] Interdisciplinary models constitute a growing area of innovation in workforce configurations (see Edelstein BL: Pediatric Dental-Focused Inter-Professional Interventions: Rethinking Early Childhood Oral Health Management, in this issue). Case studies from programs of particular interest are provided to illustrate real world applications from ongoing pilots or programs.

RESULTS

The Traditional Dental Team

The core of pediatric dental care lies with the traditional team of dentists, hygienists, and dental assistants. With the opening of 12 new US dental schools and expansion of enrollment from 4300 to 5900 dentists per year, the overall supply of dentists is projected to increase.[8] However, geographic shortages, a lack of diversity, and a lack of participation in Medicaid persist and affect the availability of dental care for children, particularly in rural, high-minority, and low-income areas.[9] This pattern is exacerbated among pediatric dentists, who tend to concentrate in higher-income areas despite the burden of complex disease being borne by disadvantaged children.[10] The need for future pediatric dentists ready and willing to treat a diverse patient pool has led to changes in the pediatric residency curriculum that incorporate a greater focus on patients who are low income, minority, and have special care needs.[11] In addition, residencies in general dentistry (Advanced Education in General Dentistry/General Practice Residency) are increasingly providing clinical training in pediatric dental care.[12] First-year enrollment in pediatric dental residencies has increased from 292 in 2004 to 436 in 2014, and the number of programs increased from 65 to 77 during that time frame, but the specialty remains a small portion of the dental workforce.[13]

General dentists continue to provide most of the care for children. Predoctoral training programs are challenged in adequately preparing general dentists to treat children, in part because of the school dental clinic population mix being composed primarily of adults. Therefore, general dentists are often reluctant to treat children less than 3 years of age despite increasing practitioner recognition that children should have their first dental visit by age one.[14,15] General dentists are more willing to see young children who are low caries risk or for prevention than children who are high risk or need restorative treatment.[16–19] Recommendations have been made to change the Commission on Dental Accreditation (CODA) accreditation standards for dental schools to strengthen training in oral health care for young children, but this has not been enacted.[20] In recognition of this need for improved pediatric skills for general dentists, many states have initiated trainings for providers specifically on reaching young children, but overall data on trends are not available.[21–25]

Dental hygienists are important members of the oral health team and their roles in pediatric care have been expanding. Hygienists are often the first point of contact,