Training New Dental Health Providers in the U.S.

Policy Brief

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Dental care is essential to overall health. Yet 48 million American children and families live in areas without enough dentists to provide routine oral health care and one in five U.S. adults reports going without needed dental care because of cost, even if there are dentists nearby. Meanwhile, public clinics are seriously overburdened.

Shortages of dental practitioners and affordable dental care are hurting the health of millions of Americans, many of whom live with pain, miss school or work, and, in extreme cases, face life-threatening medical emergencies that result from dental infections. The situation is particularly severe for poor children and families and in communities of color.

Many states have responded to access-to-care problems by significantly expanding scopes of practice for dental hygienists and dental assistants and by engaging physicians to perform an increasing range of dental services. However, there is growing recognition by policymakers that new types of dental professionals are needed to augment the care provided by dentists, allowing dentists to delegate basic services and provide the most advanced care as needed to further fill the current gaps that exist across America and reduce oral health disparities. Multiple new models are being proposed or utilized, including the following:

- **Alaska Dental Health Aide Therapists** – Already deployed by the Alaska Native Tribal Health Consortium; scope of practice includes many preventive services, basic dental repair services that are focused on children's needs and tooth extractions; training is a two-year program following high school.
- **Minnesota Dental Therapists** – Now in implementation; scope of practice includes many preventive services, basic dental repair services that are focused on children's needs and tooth extractions; training options include a bachelor's masters degree or a two-year post-bachelor's degree program.
- **Community Dental Health Coordinator** – Proposed by the American Dental Association and now being piloted; suggested scope of practice is limited preventive and palliative care and extensive care coordination services; pilot training program currently for high school graduates to learn both community health worker skills and preventive and palliative dental procedures in an 18 month program.
- **Advanced Dental Hygiene Practitioner** – Proposed by the American Dental Hygienists' Association; scope of practice would include traditional dental hygiene services, basic dental repair and tooth extractions, administration, policy, and research; suggested training is a one- or two-year post- bachelor's masters degree program.

Internationally, inadequate access to dental care has been addressed through broad utilization of dental therapists, the model upon which the Alaska Dental Health Aide Therapist is based. Dental therapists jointly trained as dental hygienists in advanced health care systems, working as integral members of the dental team, typically provide preventive and basic dental repair services and tooth extractions. Dental therapy began in the 1920s and is now a well-established profession around the world including in countries with advanced dental care similar to ours including England, Australia, New Zealand and The Netherlands.

While dental therapy is still relatively new to the United States, past training demonstrations in various states have proven that the care they provide is safe, acceptable to patients, cost-effective and productive. Unlike earlier efforts, the two most recent dental therapy programs in the U.S. are not just training therapists but sanctioning their placement in underserved communities.

In Alaska, dental therapists began work under Native Alaskan Tribal authority in 2005 in rural, isolated areas of the state and have been uniformly praised for meeting a critical health care need. In Minnesota in 2009, the state legislature approved a law authorizing the deployment of dental therapists. These are the first two states in recent history to address access inequities in this way.

Incorporating dental therapists and combined hygienist-therapists as members of the dental team aims to:

- Expand access to basic dental services for children and families in communities that are currently underserved.
- Expand the workforce in the dental safety net of community health centers, school-based health programs and other programs serving vulnerable populations.
- Increase the cost-efficiency of dental care systems (including private dental offices) and reduce the costs of those public programs that pay dentists at market rates.
- Maximize the opportunities for dentists to use their expertise to manage the most complex patients and most complex treatments while delegating some routine and basic care to these new providers.
- Establish a diverse cadre of professionals who can provide culturally competent care to minority and other underserved populations.
- Promote a career ladder for students from underserved communities, including under-represented minorities in dentistry.

Given the serious dental access issues in this country, it is clear that the country needs to seriously consider innovative ways to expand dental care capacity in every state and tribal nation community. This may mean training more dentists, enlarging the dental safety net, expanding the reach of the dental team with mid-level providers including dental therapists and hygienist-therapists, and expanding scope of practice for existing providers, or developing technology-assisted systems of care that extend into community sites that care for the underserved.

Left Out in the Cold

In the remote village of Oglala, South Dakota, a four-year-old and her father got up before dawn as temperatures dipped well below freezing.

The girl had a number of decayed teeth that had been infected most of her young life. With no dentist in the small town, her father had finally succeeded at scheduling an operation to repair her teeth at the nearest dental clinic on the Pine Ridge Reservation, 22 miles away.

The family had no car, so the father fed his daughter breakfast, bundled her up and walked a mile to the main road in the frigid air. They hitched a ride to the clinic but arrived too late. The little girl, now in pain, and her father turned around and began the long journey home.

This story plays out repeatedly in remote areas of the U.S., and is especially true for Native Americans living on or near Indian Reservations like the one at Pine Ridge. Rural and remote areas have difficulty attracting dentists. The Indian Health Service has a 34 percent vacancy rate for dentists. In some parts of the country, that rate is over 50 percent. Children and adults in underserved areas often travel for hours and wait in lines for basic dental care. Many go for months or even years with decaying teeth

But one state has a program that helps children and families living in remote Alaska Native villages get the dental care they need. The Alaska Native Tribal Health Consortium, with funding from the W.K. Kellogg Foundation, the Rasmuson Foundation, the Bethel Community Services Foundation and other partners, has a two-year training program for high school graduates who agree to practice basic dental care in remote villages in Alaska.

The pilot has provided crucial care to many Native Alaskan children, who often don't get timely treatment for seriously decayed teeth. Delaying treatment can make their problems much worse, even resulting in life-threatening infections.

The Oglala girl was lucky: The dentist arranged for her father to bring her back the night before the scheduled operation. She finally got the repairs she needed. But how many children are left out in the cold—without access to basic dental care?

One solution: Look at innovative models of providing dental care to expand access to children and families across the U.S.

Policy Issues for Consideration

Several policy issues are key to determining the future of dental therapy in the United States:

- **Defining scope of practice.** Each state has laws, licensing bodies and regulations that define scope of practice, a specific set of procedures and treatments that are permitted for different kinds of healthcare providers, such as a dentist, dental hygienist or dental therapist. For example, states vary widely in what they allow dental assistants to do when providing dental care alongside dentists. New to the U.S. is the authority granted to dental therapists in Alaska and Minnesota to deliver selected "irreversible repair procedures" involving dental surgery, including drilling and extractions.

- **Establishing supervision standards.** States have established a variety of delegation and supervision arrangement to ensure quality of care, patient safety, and coordination among dental care providers. These range from "direct" and "indirect" supervision, which require the dentist's physical presence or availability, to general supervision arrangements including "prescriptive" and "collaborative" relationships that support quasi-independent practice by other members of the dental care team. Teledentistry and advancements in health information technology are expanding the ways that dental team members can work with one another.

  In Alaska, similar to what is practiced in other countries, dental therapists are deployed independently through a prescriptive or collaborative agreement with supervising dentists that allows them to provide patient care and improve access in dentist shortage areas. Future Minnesota dental therapists, depending on their level of training, will provide care under either indirect or general supervision.

  Under both models, complex cases are referred to a dentist as the most advanced practitioner on the dental care team. The advantage of this arrangement is that it expands the reach of dentists, allowing them to delegate basic services and be consulted as needed, while treating more complex patients providing more complex services themselves. The proportion of procedures currently delivered by dentists that could be delegated to dental therapists is substantial as it includes many basic preventive and reparative services, leaving periodontal, root canal, prosthetic, orthodontic, and most surgical procedures in the hands of dentists.

- **Setting training requirements.** In the United States, the Alaska program trains high school graduates in a two-year program that determines competencies based on demonstrated knowledge and skills. In sharp contrast, the Minnesota dental therapy approach requires a bachelor's degree or college education at the bachelor's level prior to two years of advanced dental study. The Minnesota approach is more academic than experiential, provides background appropriate to care of medically complex patients, may be less community focused, and requires far more time to complete. Like many programs in other countries, it combines dental hygiene with dental therapy but does so over a total educational span of five to six rather than three years.

The effectiveness of the dental therapy model will hinge largely on how these issues are decided by legislatures and regulatory bodies, and as such may vary from state to state. For example, the full potential of this model, with dental therapists as integral members of the dental team, will not be achieved if the scope of practice is too broad and the associated training requirements too extensive or if the scope is too narrow so that dental therapists are unable to meet basic needs. Similarly, if supervision standards are too stringent, opportunities to deploy therapists to areas of greatest need will be diminished. If too lax, opportunities to develop comprehensive systems of care will be lost. Needed is a carefully constructed balance that meets the dual goals of access and comprehensiveness.

Decisions about scope, training and supervision will influence important policy determinations regarding curricula and training philosophy, program locations, designation of qualified training institutions, length and cost of training and accessibility by desired applicants. These decisions in turn will influence critical determinations regarding licensure of graduates as well as decisions about accreditation of programs. Development of an accrediting agent that is unique to dental therapists, as accrediting agents for physicians' assistants and nurse practitioners are unique to those

professions, may significantly influence how dental therapists function in the United States.

Criteria for Developing Dental Therapist Training Programs

Based on a review of international programs and initial U.S. experience in Alaska, the following criteria may be considered in developing new training programs for dental therapists:

Training

- Trainees are recruited from the general population, with preference for those from underserved populations. A candidate's prior academic achievement in high school or entry-level college courses should be an important factor in recruitment.
- Length of training is two years for dental therapy or three years for combined dental therapy and dental hygiene and should fit within a larger career-ladder structure.
- Curricula stress clinical and socio-behavioral studies that allow for technical proficiency and engagement of underserved populations over biomedical training.
- Training experiences should focus on attainment of clinical competency over didactic knowledge and should engage trainees in community-based experiences.
- The cost of dental therapy and dental therapy/hygiene education is lower than the cost of educating a dentist because they are trained in less time, which in turn can make care more accessible and more affordable.

Scope of Practice

- Social, legal and financial incentives promote training and deployment of dental therapists in ways that increase access to basic dental care.
- Dental therapists are deployed to areas of greatest need or to delivery sites that equitably serve diverse patient populations.

Supervision

- Supervisory arrangements afford dental therapists sufficient latitude to practice under general supervision while ensuring that patients and procedures requiring a dentist's expertise are referred to a dentist.
- Oversight and accrediting agencies establish standards for dental therapy and dental therapy/hygiene education within the context of comprehensive systems of care.

Conclusion

Training and deploying dental therapists in coordination with dentists in the U.S. is a promising option for expanding the availability of basic dental care. While introduction of these well-tested professionals will present challenges to policymakers, thoughtful and collaborative determinations of scope of practice, supervision, deployment and training preparation can help meet the goal of safe, quality, accessible dental care for all.

The full report and executive summary are available on the Foundation's website, www.wkkf.org.

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