

NARRATIVE MATTERS



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In Alaska, Reaching Into Remote Corners To Provide Dental Care

One of the nation's few dental therapists explains why his profession could help address dental workforce shortages in the United States.

BY CONAN MURAT

Aniak, Alaska, is a Yu'pik village of 500 people on the Yukon-Kuskokwim delta, about 400 miles northwest of Anchorage. It is in this special and isolated community where I practice as a dental therapist, trained and certified to deliver some, but not all, types of dental care. Dental therapists have been practicing in Alaska for nine years and now provide routine dental care to 40,000 Native Alaskans. In the United States about forty-seven

million people live in areas where there is a shortage of dentists, and millions more can't afford to see them. For so many Americans, even the most basic dental care is out of reach. Yet right here in Alaska, I think we've found part of the solution.

Visiting The Villages

My part of Alaska, the Yukon-Kuskokwim delta, is a vast expanse of tundra and mountains that is about the

size of the state of Oregon. Twenty-five thousand people live here, in fifty-six scattered villages. From the air, in the summer the tundra resembles varicolored moss, laced by the two enormous rivers and their tributaries and dotted with sloughs, ponds, and small forests of spiky spruce trees. In winter it's all ice and snow.

I'm based at the Clara Morgan Sub-regional Clinic, which is part of the Yukon-Kuskokwim Health Corporation, in Aniak, but my dental assistant and I spend every other week "on the road." Actually, we travel by air because there aren't any roads to get us where we need to go. We rotate among a total of twelve villages, providing basic dental services such as screenings, exams, x-rays, fillings, sealants, and uncomplicated tooth extractions. One of the villages that we visit is Grayling, home to 173 residents, which lies ninety-three miles north of Aniak on the Yukon River.

Most of the villages, including Grayling, have modern health clinics equipped with dental suites. Even so, we have to pack and load 500 pounds of gear into a small plane, including air compressors; a small unit fitted out with hand pieces and suction; supplies; and a sterilizer. We take extra clothing, sleeping bags, and food. We sleep on inflatable mattresses on the clinic floor.

On a January day with temperatures far below zero, we load up the eight-person commercially operated plane. The pilot makes routine announcements about where to find survival gear and how to activate the emergency signal if the need arises, and we take off for the fifty-minute ride.

Arriving on the runway strip in Grayling, we are met by village residents, who help us unload. We haul the equipment to the clinic in two sleds pulled by a snowmobile and set up for patients. Then we walk five minutes to the David Louis Memorial School, which has about forty students from prekindergarten through twelfth grade in a building with five classrooms, a small gym, and a little library.

The teachers send the children, three

to five at a time, to the library for their dental visits. I have them sit in plastic school chairs and lean back so I can take a peek into their mouths. I see whether they need any type of work and record it so I can contact the parents. The kids are used to me, so they don't show signs of fear or reluctance. That might not be true of their parents or grandparents, who grew up in a time when itinerant dentists visited villages only once a year, primarily to extract decayed and painful teeth. The baby boomers and the elders have childhood memories of waiting in line at school to see the dentist, hearing their friends screaming, and seeing blood.

Working with preschoolers is probably the biggest challenge in the schools. It is the first dental checkup for some of the children, and they are nervous because their parents are not present. So I try to allay their fears. In Grayling, as I always do, I seat the children on the floor in a big circle and have them take turns lying down in the middle. I get down too, look in each mouth, and apply some fluoride varnish. We practice brushing and reward the kids with new toothbrushes. People tell me that I'm just a big kid myself, and I joke around to make the kids feel comfortable. I'm confident these children will grow up with positive memories of my visits and might even be more likely to get the care they need in their adult years.

Dental Health Aide Therapists

Dental therapists like me, known in Alaska as dental health aide therapists, are part of the dental care delivery system in more than fifty countries, including Great Britain and Canada. In 2005 the Alaska Native Tribal Health Consortium brought dental therapists to Alaska. Based in Anchorage, the consortium is a nonprofit health organization that provides health services to more than 140,000 Alaska Natives and American Indians in Alaska and is the umbrella organization for more than thirty tribally owned health systems. In 2003 the consortium sent me and three other students for training to the University of Otago, in New Zealand.

Dental therapists are roughly the equivalent to physician assistants in the field of medicine. Under our scope of



practice, we do evaluations, fluoride treatments, cavity excavations, fillings, and simple extractions—the routine work that takes up most of a dentist's day. We don't necessarily work in a dental office, but, like dental hygienists and assistants, we are part of a dental team. We communicate closely with our supervising dentists by phone, e-mail, shared electronic medical records, and tele-dentistry equipment.

The dental health aide therapists are recruited by their tribes and return to the villages to practice. Because we are connected to our communities, we can cross cultural and language barriers that often stop outsiders from succeeding.

Oral Health In Alaska

In the 1930s a scientist who studied Alaska Natives reported that we had the healthiest teeth in the world. But that started to change in the 1940s with the arrival of Westerners and their Western diet. Sugar, junk food, and limited access to regular dental care have taken their toll. The level of tooth decay, missing teeth, pain, and infection among Alaska Natives can be shocking, even to someone like me, who has seen it all. As is true elsewhere, our oral health crisis is also rooted in poverty and all the problems that come with it. There are hardly any jobs in the villages, and prices for basic necessities are amazingly high—like \$10 for gallon of milk or \$7.45 for a gallon of gas.

Before the Dental Health Aide Therapist Program was created in Alaska, a dentist would visit a village for a few days once a year, if that, mostly to pull de-

cayed and infected teeth. They would give priority to children in pain, then to all other children. They almost never had time to see adults. No one received preventive care such as sealants or fluoride treatments. Generations of Alaskans grew up frightened of dentists they knew only from a distance and during moments of trauma. As a result, many people, especially elders, still avoid dental care.

Things aren't quite so bad now. Some people are lucky to have Medicaid assistance, which pays for patients in need of immediate treatment to travel to a larger village or city where there is a dentist. Others have to save up for travel and mostly just wait until dental therapists such as me can come back to their village. In the meantime, they get by with pain medicine and antibiotics from the local community health aide.

Preventive care is also becoming more common. More than half of the residents of the Yukon-Kuskokwim delta, one of the most populated rural areas in Alaska, are under age eighteen. Unlike their parents, most are growing up with preventive sealants, fluoride treatments, regular checkups, and constant messages about flossing and brushing.

For my patients, it makes a huge difference to see the same provider year after year, especially one like me who is a part of their community. People know me well. In fact, most of us here are related in one way or another. I can joke with the elders and talk to high school students about future dental careers. I can remind people about their checkups at the grocery store. I can make my assistant wear a giant tooth costume at the annual Aniak Traditional Council Fair. (He doesn't care for the tights.) I can make it fun but still be a forceful advocate for oral health and hygiene.

Why I Do This

My sister and I were fortunate to have parents who paid close attention to our oral hygiene, and I never even got cavities. I'm passing this gift on to my three-year-old daughter by brushing her teeth twice a day and will do the same for my baby boy. And so are other parents in our community.

Even so, about 90 percent of Alaska

Policy Checklist

The issue: In the United States nearly fifty million people live in places without enough dentists, and millions more can't afford care. Modernizing the dental workforce and delivery system by adding midlevel dental providers, known as dental therapists, could improve access to care. To date, the only states with practicing dental therapists are Alaska and Minnesota, but others may soon follow suit.

Ongoing initiatives:

Community Catalyst, Dental Access Project, <http://www.communitycatalyst.org/projects?id=0014>

Related reading:

Kim FM. "Economic Viability of Dental Therapists." Boston (MA): Community Catalyst; 2013 May [cited 2013 Oct 2]. Available from: http://www.communitycatalyst.org/doc_store/publications/economic-viability-dental-therapists.pdf

Nash DA, Friedman JW, Mathu-Muju KR, Robinson PG, Satur J, Moffat S, et al. "A Review of the Global Literature on Dental Therapists." Battle Creek (MI): W.K. Kellogg Foundation; 2012 Apr [cited 2013 Oct 2]. Available for download from: <http://www.wkkf.org/knowledge-center/resources/2012/04/nash-executive-summary.aspx>

Wetterhall S, Bader JD, Burrus BB, Lee JY, Shugars DA (RTI International). "Evaluation of the Dental Health Aide Therapist Workforce Model in Alaska: Final Report." Battle Creek (MI): W.K. Kellogg Foundation; 2010 Oct [cited 2013 Oct 2]. Available for download from: <http://www.wkkf.org/knowledge-center/resources/2010/10/alaska-dental-therapist-program-rti-evaluation-report.aspx>

Wheeler JB, Rueschhoff A. "LegisBrief: Oral Health Workforce." Washington (DC): National Conference of State Legislatures; 2013 Mar [cited 2013 Oct 2]. Available for download from: <http://www.ncsl.org/issues-research/health/legisbrief-oral-health-workforce.aspx/>

of her head or body, which could be life threatening. I know I am helping.

Another patient I saw recently was a seventy-year-old man whose final ten or fifteen teeth had to be removed. Like many elders around here, he is facing a life with no teeth and no dentures, because he can't afford them and doesn't qualify for any form of assistance.

Even so, I've seen positive change over the past nine years, especially here in Aniak, where people have easy access to the clinic. I'm seeing more cavity-free children and doing fewer extractions and huge fillings than before.

The other day, a little boy bounced into the clinic for a checkup. When I told him that he didn't have any cavities he hooted with excitement, "Aaaaalllll riiiiight!" Another little boy had traveled to Aniak from a different village and was equally excited when I told him he did have a cavity and would need to return. I guess he likes flying in planes.

A neighbor who has lived in Aniak for many years told me that she can see a big difference when comparing the oral health of her daughters. The elder sister, age twenty-six, has crooked teeth, a mouthful of crowns, and large fillings that often break. The younger sister, age fifteen, has had access to regular dental care from a young age, and her teeth were healthy enough for braces. Today the girl has a beautiful smile.

Dental Therapy Education In Alaska

Over the past nine years the Alaska Dental Health Aide Therapist Program has matured to include our own educational program, established protocols, experienced dental supervisors, and a well-regulated process to certify therapists and continuously evaluate our skills. And our dental therapy students no longer have to travel halfway around the world for training. In 2007 the Alaska Native Tribal Health Consortium, in partnership with the University of Washington School of Medicine, opened the Dental Health Aide Therapist Educational Program, a two-year program where students get more than 3,000 hours of training in dental therapy. The program includes a year of classroom and preclinical course work in Anchorage and a clinical year in

Native children had cavities in 2008—a figure that is twice as high as US children overall. We have a long way to go.

I am part Yu'pik, an Eskimo people of western and southwestern Alaska, and I grew up in Bethel, Alaska, with relatives throughout the region. I love the Alaskan lifestyle of hunting, boating, fishing, and snowmobiles, and Aniak is the perfect place to enjoy those things.

My family is connected in many ways to the dental profession. My mother once worked as the business manager of the Yukon-Kuskokwim Health Corporation dental clinic in Bethel. My grandfather was a dentist; my uncle is a former president of the Oregon Academy of General Dentistry; and when my father was in the Army, he also worked in the dental field. Clara M. Morgan, for whom the Aniak clinic is named, was one of our area's first community health aides and also one of my great-aunts.

In 2003, when I heard from my mother that my tribal corporation was looking for students to train as dental therapists in New Zealand, I jumped at the chance. I'm a people person, and I love a

challenge. Eleven years after making that life-changing decision, I am lucky to have a job where I can help people in my community.

My Patients

As I've educated parents that tooth decay is preventable, I've had success with many of them, but not all. I recently treated a preschooler whose decay was so severe that her four front baby teeth were down to little stubs. If I can, I send these children to the hospital in Bethel for treatment in the operating room under sedation, but this little girl was in terrible pain. I sent x-rays and consulted by phone with my supervising dentist, who agreed I had no choice but to strap her into a papoose, numb her teeth, and remove them. The procedure took only about ten minutes, but I know it traumatized the child. Cases like this have become more difficult for me to treat now that I have children of my own. But if I didn't treat these cases, the child wouldn't be able to sleep or eat. Worse yet, infection could spread to other parts

Bethel. The academic training is intensive, and the students get at least as much clinical training on the limited procedures within our scope of practice as dental students receive for the same procedures.

After completing the educational program, students return to one of the Alaska tribal health organizations for a supervised three- to six-month preceptorship, like a mini-residency, where therapists work side by side with supervising dentists. Only after this experience are they allowed to practice under general supervision, which means a dentist might not be on site but still must approve all services that the therapist provides. Dental therapists also have continuing education requirements and must be observed directly every two years by their supervising dentists for recertification.

Pushback Against Dental Therapy

Despite the services we provide, many oppose the dental therapy profession and have fought to limit our reach. When I got back from the dental therapist training program in New Zealand in early 2005, the American Dental Association and Alaska Dental Society were running a \$150,000 advertising campaign in Alaska against dental therapists, warning the public that our care was unsafe and second rate. They had filed a lawsuit against us for allegedly practicing without a valid state license. It rattled our cages, but we had been warned to expect the lawsuit and were confident that the Alaska Native Tribal Health Consortium would protect our interests. The Alaska attorney general eventually ruled in our favor: We were within our rights to practice in tribal programs under federal authority.

Later that year, when the Bethel Chamber of Commerce hosted a speaker from the Alaska Dental Society, about twenty people, including therapists, dentists, hygienists, and dental assistants, picketed the meeting. My dad

made the signs, including one I carried that read: “Born here. Going to stay here. Caring for my people.” It was exciting and energizing to hear from supporters as we marched through town. That event turned the tide of the media coverage.

Looking Beyond Alaska

Alaska Natives are not alone in their struggle for adequate dental care. Millions of other Americans live in areas without enough practicing dentists to meet their needs. Others can’t afford a dentist or can’t find one who accepts Medicaid. Exacerbating the situation, thousands of dentists are close to retirement age, with fewer students coming up behind them in the dental school pipeline. In addition, about 8.7 million children are expected to qualify for dental benefits under the Affordable Care Act, according to the American Dental Association’s Health Policy Resources Center.

We will need more dentists; hygienists; assistants; and, yes, dental therapists to meet the future dental care needs in this country. Dental therapists should be part of the solutions to this country’s oral health crisis. Yet we must overcome perceptions of dental therapy as unsafe or unsustainable. On the contrary, there is extensive evidence documenting the safe, cost-effective, and high-quality care that dental therapists provide.

Minnesota established a Dental Therapy Program in 2009, and other states may soon follow suit. Oregon authorized a pilot project for midlevel dental providers in 2011. According to the National Conference of State Legislatures, legislation allowing for midlevel dental providers has been introduced in ten states, and the issue is being explored in more than twenty states by a growing number of policy makers, educational institutions, and community-based groups.

What’s more, we shouldn’t write dental therapy off as something that can

work only in rural areas with extreme weather conditions or obstacles to travel. Dental therapist programs would thrive down in the “Lower 48,” as we Alaskans call the rest of the mainland states. Indeed, the model we have created in Alaska could be emulated or adapted anywhere. For instance, therapists could practice in schools or mobile vans as they do in New Zealand. They could staff public health clinics and bring care to patients in nursing homes. Private dental practices could accommodate more patients by employing dental therapists as well. As a result, more jobs would be created in communities across the country, and everyone would benefit.

Skeptics may not be familiar with our education and training, our close relationships with supervising dentists, our skill set, and the systems in place to ensure that we provide high-quality, safe, and appropriate care. But just about every dentist, physician, politician, official, or journalist who has visited us in Alaska has experienced a change of heart. No matter what they thought about dental therapy when they landed at the Bethel airport, they leave with a clear understanding of the need for our work. They see that dental therapy, when practiced as part of a team effort to bring dental care to vulnerable populations, makes sense.

I know we can change more minds. There’s a huge backlog of untreated dental disease out there. People need to learn the importance of taking care of their teeth. They also need treatment. In health systems struggling with dental workforce shortages, dental therapy isn’t a magic bullet that’s going to solve everything. But it’s too sensible to ignore. It can be part of the solution. In Alaska, we know it is. ■

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