

PUBLIC HEALTH PROGRAM SURVEY- Infectious Disease

Contact Information

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Short Title: Dental workforce training project- dental therapist introduction to the US

Program Location: USA, Alaska, Anchorage

Objectives and Goals:

Need: Alaska Native children suffer dental caries (cavities) rates 2.5 times higher than the rest of the US population. Vacancy rates for dental providers average above 25%, turnover rates are over 30% in rural Alaska. Access to care is also hindered by geography, climate, economics and fear.

Objectives: Decrease level of untreated dental disease. Improve access to care in Alaska Native rural communities. Produce culturally competent dental providers as quickly and efficiently as possible, with a focus on motivational interview techniques for lasting positive behavior changes and evidence based techniques to address the bacterial infections at the heart of this epidemic of dental caries.

Develop training curriculum which can be used in other training centers.

Methods:

Received start-up grants to develop the curriculum, build the training centers, hire and contract faculty. Modeled on existing similar training in New Zealand and Canada. Worked with University of Washington on curriculum. Admitted students in 2007. Have graduated 3, 14 students now in training. Continual evaluation and modification of the curriculum as we progress. Evaluation of providers practice and effect on the disease rates in their area of practice is now in process. Previous to opening the training centers in the US, students were sent to New Zealand for similar training and those who successfully completed that training are currently working in rural Alaska.

Program Length:

The training center start-up grants cover 4 years, we are currently in our third year of operation. Training a dental health aide therapist is a 2 year process. We start a new cohort every year. We have obtained other funding to continue the training beyond the initial 4 years. We are looking for more funds to sustain the program longer.

Number of target population reached by effort:

120,000 Alaska Natives, many of whom live in about 200 rural villages around the state.

Demographic Info:

About 80,000 of the 120,000 Alaska Natives live in rural communities. Many of these rural communities are not connected by a road system. There are 12 major tribal health organizations throughout the state.

From US census 2000 info for Alaskan Native Race only: median yearly income is \$12,500, median age is 26.

Overall Cost:

Overall cost per student per year has been running about \$250,000. This may seem high, but it includes infrastructure and development cost, so the assumption is the cost will go down in the future. It also reflects the fact that dental training in the US is one of the most expensive of all professional training program types. The cost of not doing this training is seen in costs to provide more invasive treatments and higher level of care as well as travel costs for remote populations and costs to quality of life.

Funding Sources:

2 % Federal

10 % Local

88 % Other, please explain: This project is largely funded by grants from the Kellogg Foundation, Murdock Foundation, Rasmusen Foundation, Bethel Community Services Foundation, Paul G Allen Foundation, Robert Woods Johnson Foundation

percentages ARE estimates

Outcomes:

Outcomes to date: 3 graduates working on preceptorships with their supervising dentists, 14 students in training. 10 DHATs trained in New Zealand are working in rural Alaska. Outcomes are under study, but there is no data available at this time. There has been considerable conversations happening in the US dental community and MN has recently been the first state to change it's dental practice act to include dental therapists. This project is changing the way dentistry is done in the US, and will set an example which values patients and prevention over surgical treatment.

Did you make any estimates regarding costs deferred, outbreaks averted or deaths prevented?

Currently there are about 1200 pediatric dental rehabilitations under general anesthesia provided in the Alaska Tribal Health System. Each of these costs at least \$7000, or 8.4 million dollars total. This is just a part of the costs that Alaska Natives pay for dental care yearly. All of these rehabilitation services are the result of 100% preventable dental infectious diseases. Each year a large percentage of Alaska Native children miss school due to a toothache, adults miss

work. Remote village residents have to purchase plane tickets and hotel rooms to get to a dentist. The costs of doing business as usual is hard to quantify, but easy to qualify- it is extremely expensive. Having providers in villages, promoting dental health will be easily offset by savings.

Additional Information:

This project will demonstrate the plausibility of training and utilizing a new type of dental provider in the US. The addition of this primary dental care provider mirrors the introduction of the physician assistant to the US medical team over 30 years ago. It will allow dentistry to change the way it practices, giving the profession the flexibility and workforce to address access to care and infectious dental disease efficiently and effectively. It has the potential to humanize dentistry, ie taking the fear out of the visit to the dental provider. A therapist can work with the patient to alleviate fear and build successful, trusting relationships.

Future Plans:

Funding is largely from grants. The economic situation in the US will make finding more grant money difficult. We are actively pursuing multiple avenues for sustainability. It is our vision to continue this project indefinitely.