

# Pioneer dental care technique brings results in Kipnuk

When dentists examined children in the village of Kipnuk in 1974, they found that 90 percent of the 1-to-4-year-olds had massive decay and oral infection.

Such extreme circumstances called for uncommon solutions to give complete treatment for infection, to repair teeth where possible and to perform extractions where required. Not only would the dentist have a limited time in the village, but work of this magnitude would require that patients have great self control and understanding—even if they were adults.

Gaining cooperation of children of pre-school age, some of whom understand little if any English, would be difficult. This, combined with their acquired fear of strangers, and especially the dentist, would make it virtually impossible to provide dental care without the patient also incurring psychological effects.

Dr. William P. Fell, Anchorage dentist and now president of the Southcentral District of the Alaska Dental Society, had made those first examinations. The deplorable condition of the children's oral health, he says, is not due to genetic problems in the village, but to a diet of high-carbohydrate foods, particularly low-cost artificial orange juices.

"Most of the kids' grandparents are in possession of their full 32 teeth, there is no crowding or decay," the dentist observes. "They were brought up on and still adhere to a traditional Eskimo diet of high protein and low carbohydrates. But the orthodontic problems we saw in the children of Kipnuk are associated with poor diet along with insufficient cleansing methods."

The situation stayed in Dr. Fell's mind and he deliberated on how to solve the problem.

"For several years, in my Anchorage practice, I have treated very young patients, and those psychologically unable to tolerate dental treatment, by admitting them to Providence Hospital. There the necessary treatment is done while the patient is asleep and under constant observation and care by the anesthesiologist. This allows complete treatment with a minimum of psychological-trauma," he says.

"I began thinking 'why not Kipnuk?'"

And so the "No-way, Mama, Dental Clinic" at the Kuskokwim Delta village came into being. The clinic was so-named because of a statement made repeatedly by a four-year-old girl as her mother coaxed her through the door.

But much planning and preparation was required before the clinic was in operation. Dr. Fell considered the question: Could a general anesthetic be given safely outside a hospital situation?

Fortunately, Dr. Fell says, he was well acquainted with a dedicated and adventuresome anesthesiologist, Dr. Joe Chandler. They planned the clinic together for two years.

There was indeed opposition to the unconventional plan, but Dr. Fell says "I was lucky that Joe believed in the potential of the project as much or more than I did."

As initial arrangements were made, Dr. Fell talked with the village council and corresponded with them at length, explaining in detail remote but potential complications.

Many at Kipnuk helped with the project. These include school principal Bill Elliot; Mike Kern, a teacher there; Jessie Gunlik, whom Dr. Fell calls "an outstanding health aide," his assistants Martha Attie and Alice Martin, a former teacher, Kate Crotty and her sister Melanie who works for Sea-Airmotive.

Also providing services and equipment were the Anchorage Municipal Fire Department; Bill Colvin; Anchorage pharmacist Larry Smith; Dick Olsen, dental equipment and supplies; and Wien Airlines and Sea-Airmotive, Inc.

The dental team arrived in Kipnuk on Sunday, September 25, 1977. They included Mrs. Chandler, a nurse and Mrs. Fell, a dental assistant. They set up equipment that night in order to be ready for work early the next day.

"Our aim," Dr. Fell says, "was to treat as many as possible of the children aged one to seven years." The first day was slow, with the people uncertain about what to expect.

"By the second day we were treating, under general anesthetic, from six to eight children a

day, as well as some patients using local anesthetic."

The dentist says the rapid increase in attendance came about when parents began to see how efficient and almost pain-free this method was for treating their children who had such great needs.

Dr. Chandler gave physical examinations to all the small children brought to the clinic. Some he even treated for other health problems. A few received several days of antibiotic therapy before treatment for their dental infection could even begin.

"There was dramatic improvement in the general attitudes and wellbeing of these children, and there could be no doubt in our minds that massive dental infection has a profoundly adverse effect on general health," Dr. Fell says.

A treatment procedure was spelled out and included the physical examination followed by a dental exam, laboratory tests on those selected for general anesthetic, instructions about food intake, then the work itself. Parents and others often remained to watch.

Most of the patients, Dr. Fell says, required six to eight children's stainless steel crowns, anterior (front) restorations and/or extractions during the one to one and a half hours work on each. "There were none of the usual obstacles, so we could do much more in the time."

In the village of about 375 population, the team treated all the preschoolers through first graders presented by their parents. "In the five and a half working days, we treated 50 children."

"The change in attitude of these young children was profound," Dr. Fell says. "What had begun as avoidance and fear of me as a dentist during the first two days, changed to warm

smiles, the bringing of small gifts and following us about in a confident manner. It made the whole project even more rewarding for all of us and gave us the feeling that we really were onto something good.

"We were all particularly moved at the end of our visit when one of the parents came to give us personal thanks for treating their children. Appreciation like that will always remain in our hearts."