recall that Crest originally contained stannous fluoride rather than sodium fluoride. In addition to being a primary clinical examiner evaluating Crest, Chuck worked with Dr. Muller to develop a preventive prophylaxis paste containing stannous fluoride that was used by dental practitioners until relatively recently. This prophylaxis paste also was used extensively in the military. The product has been off the market for nearly two decades, but it has been less than a decade since I had my last inquiry regarding the prophylaxis paste. Invariably I would get calls about the time school started, asking, "Where can I buy fluoride dental prophylaxis paste?" Mainly, these calls came from dental hygienists working in schools.

This product also was developed into a self-applied fluoride regimen, generally referred to as a "brush-in." In Indiana and ultimately across the nation annually hundreds of schoolaged children would be herded onto a playground or football field to brush with this stuff simultaneously. Unfortunately, it tasted horrible! And, the end results were dubious.

Hersh and colleagues did some research on this product both in the U. S. and in Brazil. It didn't taste any better in Brazil. Once, I will never forget, Hersh received a letter from a school nurse who recruited and or-

ganized students for this treatment regimen. The challenge was that once students had had a treatment it was difficult to get some of them to comply with subsequent treatments. The school nurse asked if there was anything that could be done about the wretched taste. Hersh responded by explaining that they couldn't add flavoring agents to change the taste, which was true at the time. Later, industry was able to add flavor to stannous fluoride without altering its effectiveness. To which she replied, "Well, I guess we will just have to try harder (to recruit students), anything that tastes that bad MUST be GOOD!" In addition to being an avant-garde state dental director, Dr. Gish also held many elected and appointed positions in both ASTDD and the AAPHD. He also has been awarded many honors over his career both from these two organizations as well as from the State of Indiana and the University of Indiana.

Like most of us, he also has another life. For example, for years he has owned a large acreage and raised both Black Angus and Hereford cattle. We could not find any pictures of Black Angus, so you have to settle for these guys who are of mixed origin. Dr. Gish, like so many other public health folks, is an avid collector. He collects Native American artifacts.

But, he is not satisfied to only collect. He has become very knowledgeable about them and in turn he shares this information with students in local schools in Indiana. I am certain that one of the first things he and his family did when they arrived in Washington was to head for our new Native American Museum. His other hobby, besides raising cattle and collecting Indian relics, is fishing! Anywhere! On land, on sea, you name it! He likes to fish. Last summer he won first prize for catching the largest bluegill in the pond on their property.

In closing, I must share with you, that shortly before Hersh died I tried to think of all kinds of things to talk to him about. Some of these items, of course, were about dental public health. Once thing I asked him was if he thought Chuck Gish was a likely candidate for the Knutson Distinguished Service Award. Without hesitation he said "Yes, by all means."

Dr. Gish, you have distinguished yourself time and time again, in dental public health. You have helped thousands of children in Indiana become adults with healthy dentitions. Thank you, Chuck, for all that you have contributed and congratulations on receiving this most prestigious award. You are most deserving.

## Remarks on Receiving the 2004 APHA Knutson Award

## Dr. Charles W. Gish, DDS, MSD

Thank you Alice, for that wonderful introduction. You always do so many great things and give the credit to others. Also, thank you Dr. Presson and Jane Steffensen for your comments. And, a very special thanks to Colgate Palmolive and Kay Quick for your support of APHA and the awards program. Your participation is greatly appreciated.

Alice, you introduced my wife, Treva, daughter Tracey and grandson Jared – I might add that we had our 55<sup>th</sup> wedding anniversary last June. The John Knutson Award is a very special honor for me. I knew John personally and we worked on many of the same type fluoride studies although Dr. Knutson was a few years ahead of me. I might give you one specific incidence with Dr. Knutson and me:

I was a dental corpsman in the navy during World War II and at the end of 1945 when the war was over, I was released to inactive duty in the Naval Reserve. I went through dental school and after graduation, the

Korean War was on the horizon and I thought I'd be called to active duty. The dental school and the State Board of Health both wanted me to stay and do research and public health, so I did. In April of 1952, Dr. Knutson called and said, "Chuck, where are you?" I said, "Here at the State Board of Health, Why?" He said "You're supposed to report to San Francisco at the USPHS Regional Office today for duty, didn't you get orders?" I said "No." He said, "That darn Dr. Burney, he tore your orders up since

he didn't want you to leave!" Dr. LeRoy Burney was Indiana State Health Commissioner and also the U.S. Surgeon General. Anyway, John said "If I cut you new orders, can you report to San Francisco in two weeks?" I said, "Yes," and reported.

Since I was doing fluoride research and public health I had been transferred from the Navy to the USPHS. I served two years as a dental consultant in the USPHS, Region IX Office. I worked closely with Dr. Don Galagan, Dr. George Nevitt and many others. Of course you're going to say we've made a lot of progress since then, but I want to remind you that progress is measured in a lot of different ways.

I always like to tell the story of the two moose hunters who had a bush pilot fly them back into the back country to moose hunt. He said to get just one moose, for that's all we can get up with... I'll be back in three days. The first day, the hunters got a moose, field dressed it, and with nothing to do the second day, they got another moose. They field dressed it and the third day the pilot came back. He said, "I told you only one moose." They said, "We already have two field dressed, put them on." The pilot said, "I told you we can only get up with one moose." The hunters said, "The pilot last year put two on, so why can't you?" The pilot said, "Well, okay, if the pilot last year did, I guess I can." They put them on, took off, and crashed. The hunters came to in a daze and one said, "Where are we?" The other said, "About 100 yards farther than we got last year!!" .... So, you see, progress is measured in a lot of different ways!

... But sometimes we forget the progress we've made, like the fellow who had a terrible time remembering things. He'd talk to someone and forget what he'd said. It got so bad, he went to the physician and said he was having a terrible time remembering things. He said, "I talk to someone and can't remember what I've said." The physician said, "How long has this been going on?" and the guy said, "How long has what been going on?"

Well, this evening let's forget our progress and just talk. At the end of the two years with the USPHS, I had several good choices for practicing dentistry:

- 1. Stay in the USPHS (I then had regular Corps status)
- 2. My brother graduated from medical school the same year I graduated from dental school. He had a terrific practice and wanted me to come in with him. As a matter of fact, for the first 20 years he kept saying "Come into private practice with me." A big practice about wore him out and the last 20 years he said, "I should have gone into public health with you!"
- 3. I graduated at the top of my class and the chairman of operative dentistry said I was one of the fastest operators he had ever graduated, which would make private practice lucrative.
- 4. The dental school and State Board of Health both wanted me to come with them and they made arrangements for a dual appointment.

I chose public health, and if I had it to do over, I'd do the same thing. It has been fantastic! All of you should be very proud to be in public health. It's absolutely great. You work hard! You know what you're doing! Satisfy yourself – you don't work to satisfy yourself until you can't wait to get to the office or project in the morning and you don't want to leave in the evening. That doesn't mean to neglect your family – be with them, too. Whenever I went fishing, we took the kids. On vacation, we took the kids.

I have placed two papers here so you can pick up a copy when we're finished. One is a letter from me showing community organization, which Dr. Koop had placed in the National Library of Medicine. The second is a sample of several programs we initiated 20-55 years ago. Most of you don't realize how much dental disease there was 50-60 years ago. Tooth decay and periodontal disease was from one end of the mouth to the other. You didn't know where to start or where to stop.

In Indiana, we had 2000-3000 den-

tal practitioners or so in public health. I always made it a practice not to do those things that a practitioner could do. Another one pair or ten pairs of hands would not make much difference to the total health of our people. I tried to do those things that made those practitioners more productive, provide better service, develop new/better products, or procedures and especially measures to prevent disease that reached large numbers of people in a relatively short period of time with small expenditure of manpower and at low cost.

There is a problem for you though – many of these programs throughout the country have operated but not been published. You need to solve this problem. You may be working on a program or developing a project that was done 40 years ago. Be resourceful, go after solving these problems. Do your homework. Have your facts. Know you're right.

Example 1: During the 1950's we wanted to take grants from a private company to do research to develop a fluoride dentifrice. The State said we couldn't take grants from a company to develop a product that they are going to sell for a profit. I said this is crazy. I went to the "powers that be" and said if apples are good for people, why shouldn't we help the fruit industry sell more apples? They understood and agreed with this. I then said the same thing exists for an immunization or a dentifrice. Why shouldn't we use grants to help develop a product that we know is good for people? When and if we do, then let them do the selling. The more they sell, the better the health of people. They finally agreed with this and we used many grants to do many things.

Example 2: We were given the responsibility for all the institutions in the State (prisons, mental health facilities, girls' schools, boys' schools, blind schools, deaf schools, etc.) but they gave us salaries that were inadequate and we had extreme difficulty hiring adequate practitioners. I wrote a memo stating in detail exactly what we needed. The "powers that be" said they couldn't do it and said if those

dentists weren't there they would be out practicing on the public. I said the public has a choice as to who they see for care. If you put them in an institution, the institutionalized persons have no choice and the responsibility falls on the State's shoulders. They still said they couldn't do it. I said okay, I was man enough to give you a memo saying in detail what was needed, now if there is a reason not to approve it, be man enough to write me a memo giving a specific answer as to why not. They approved them all. There again, do your homework. Have facts, and know you're right. That puts the pressure on them!

In the paper, I mention a preventive prophylaxis paste (Zircate), which was used by all the armed forces and dentists all over the world. There are a couple things about the development and its disappearance that you probably don't know. The University was doing some work for an automotive company to develop a paste to clean and have the paste change particle size to become a polishing agent for bearings. Our chem-

istry department and research dentists thought this would be an excellent prophylaxis paste. It would be abrasive to clean stains, change particle size and end up being a polishing agent. It was great. Your teeth felt slick after a prophylaxis. The manufacture of the paste was discontinued when a study in the Washington, D.C. area had four or five out of 1000 children become nauseated while brushing. A group was called to Washington to meet with the Food and Drug Administration, including me. They said the taste was such that the paste should be discontinued. I said you'd get four to five children out of 1000 become nauseated by using salt and soda or any paste if you had them brush properly and sufficiently in the posterior lingual and palatal part of the mouth. They finally said ok – but there has to be a report submitted for every child who became ill. The company said we're not doing this because of time, legal implications, etc. and just stopped producing it. It was a great prophylaxis paste and I think someone should pursue its use again.

One last story that illustrates finding a way: An Englishman going through the countryside by foot selling his wares with a tub on his head, a pig under one arm and a rooster under the other. He was getting tired and wanted a short cut to the next community. He met a young maiden on the road and asked if there was a short cut. She said, "Yes, if you go into the woods about 300 yards to a big oak tree, turn 40 degrees to the left, go 250 yards to an ash tree, turn 30 degrees to the right, and...." He said, "Whoa, couldn't you go with me and show me the way?" She said, "But sir, you might take advantage of me!" "Take advantage of you, how could I take advantage of you - with a tub on my head, a pig under one arm, and rooster under the other?" She said, "Oh, come now, you could put the tub on the ground, the pig in the tub and I could hold the rooster."

Thank all of you for the John Knutson Award. I'm very pleased and honored to receive it.