

U.S. NAVY MEDICAL DEPARTMENT ORAL HISTORY PROGRAM

ORAL HISTORY WITH CDR (ret) WILLIAM PERRY, MSC, USN

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Interview with William J. Perry, M.D. (former CDR, MSC, USN). Dr. Perry and many other allied science officers during World War II were pioneers in malaria and epidemic disease control during the campaign in the South Pacific. Their efforts markedly reduced the morbidity rates among Navy, Army, and Marine Corps personnel during that conflict.

First of all a brief glimpse of where you grew up?

I grew up in Grass Valley, a little mining town in Northern California. I attended the local schools, did my graduate and undergraduate studies at the University of California, principally under the watchful eye of Professor W. B. Herms and Dr. Florence Frost, both of whom have outstanding records in the field of insect born human diseases. I worked in the gold mines underground for five summers to pay for the next years schooling.

Tell me about your career in the Navy in that relatively new MSC Corps?

I was commissioned an ensign in 1941 when hostilities were imminent. It was the old designation H(V)S that subsequently became the Allied Science Section of the Medical Service Corps. I was ordered to the old Naval Hospital and School in Washington, DC, to teach in the Department of Tropical Medicine. This department under

J. J. Saperro M.D. was to become the "nuclear particle" for the future malaria and disease control program for the South Pacific. I was transferred to the newly commissioned Naval Medical Center in Bethesda in early 1942 to the teaching faculty. From there I joined Dr. Saperro on ADM Halsey's staff. I returned home to Bethesda, then to the Office of Naval Research, to London, or a science office and finally to Washington, DC, to head the Allied Science Section in BUPERS.

What was the course like that you taught when it was here (Washington, DC)?

We taught medical officers and corpsmen how to professionally identify insects and other parasites, including blood smears of malaria, filariasis, and slides of intestinal protozoa that we suspected existed in the South Pacific.

Information was meager and much of that available was inaccurate. This sad commentary on the lack of research tells us that experience in the past may be a good teacher but is kind of a "night vision" for the future. Research needs to continue in all fields and should be fostered to insure that the medical status will enhance and benefit the men and women in our military.

Our emphasis was not only in the laboratory but included field trips -- how to collect and identify insects (it was interesting to

the students because we had an anopheline mosquito breeding near the hospital (no malaria) and this genus is readily identifiable as they would see later in the field.

Basic equipment for spraying was demonstrated including plans to equip airplanes for aerial spraying. Use of heavy equipment for (?).

So you went to Bethesda when the Medical School moved?

Right. Actually the medical school was the first to move into the new building.

And you continued to teach the same courses?

Basically the same but by this time with the support of more newly commissioned officers with their individual talents in fields such as parasitology, medical entomology, ecology, mites, ticks, and even rodent zoology, the courses took on a new look of urgency. Their talents tended to better emphasize the importance of this course and certainly improved the stature of the medical department as reflected by the expressions of the newly inducted physicians and medical corpsmen. Our emphasis was on communicating what information the specialists could gather in their fields.

In reality we were dealing with a whole new ecological and environmental situation in the Pacific area. Over the years, due

to the "iron curtain" over the Japanese mandates and that the Pacific group did not come under European influence until after 1800, there was very little scientific information available in these special areas.

At this point, early in 1942, with the foresight of such people as Dr. Saperro, Wilson and others close to the problem, they began to formulate regulations and policies that would meet the demands of all military groups in the South Pacific. These directives met the approval of Admiral Halsey and an area team to coordinate the entire malaria and epidemic disease program. This was the birthplace of this significant and important "military campaign" to control malaria and dengue, and it had its roots as the Naval Medical School.

Can you spell out a typical organization of a malaria control unit?

Each varied somewhat depending on the size of the combat unit to which they were to be assigned. The Army followed the same protocol as spelled out in the South Pacific directive. Generally there were two or three officers at this early stage and the same number of corpsmen for each unit. This number increased as the demand for services increased. As regulations became recognizable to the military, eventually these malaria control units took over the entire program including atabrine distribution to troops and

natives, giving lectures, distributing pamphlets and motion pictures to military personnel, equipping personnel with sprayers and general enforcement of the rules.

All these efforts paid off tremendously for as the battle arena moved forward, casualties from disease decreased. Knowledge gained from one area was applied to a new problem area elsewhere. Combat units would often report losing 25-50 percent of their combat efficiency. By the time island advances were made, rates dropped; by 1943 sanitary and medical control measures supervised by the units had begun to be impressive.

A main staging area was initially established on Esperitu Santo and from this point current information was passed on to incoming units. Some research was undertaken at this island to better understand the ecologic habits of the principal vectors of disease encountered to date.

What was the actual mechanics of the spraying? How would that operate?

Initially we relied on what help could be obtained from the assigned units. Knapsack spraying to all local areas and eventually aircraft provided by military units was equipped for aerial spraying. Motor vehicles obtained from the motor pools were modified to handle a more rapid dispersal of sprays. This willingness of corps

commanders to provide such equipment is a testament to the respect they held for the threat of disease and the policies established for the South Pacific and the energies expended by the malaria control teams.

What would they have used for insecticide at this point? DDT?

By this time we had access to large amounts of DDT. Experiments in the states demonstrated the effectiveness of this chemical but they began to recognize the potential to humans in its usage.

There was not much room for compromise, however, since this vicious vector bred by preference along the borders of running streams in and among the waterways the natives used for food. The mosquitoes needed to be controlled at this stage of their development with liquid spray.

Would the natives be utilized in these control efforts?

The natives were of great help, but they needed much supervision. Directions needed to be given by hand signal. The close presence of natives to military personnel was troublesome to the commanders.

We were aware that the natives of the Solomon Islands were heavily seeded with malaria and medical officers were strongly opposed to the use of natives in the combat zone. Military officers,

however, did recognize this problem but the gravity of the military situation required all available troops to be committed to the combat zone. Consequently these units became more stringent in overseeing adequate control.

So did you get involved at all in the tail end of the Guadalcanal campaign and the remainder of the Solomons campaign?

I spent about 2 years there and followed the campaign through the Solomon chain to Bougainville the uppermost island in the South Pacific campaign.

Where did you go from there?

I Returned to Bethesda at the Naval Medical School.

Had the course changed at all now that more experience was gained in the field?

One did have a better outlook of the enormity of the problem. The basic curriculum was essentially unchanged and some aspects of control and need for identification of certain diseases became diluted, superfluous, or even non-essential in view of field observations. This is often true as science progresses. We learned how important it was to work closely with field commanders to establish good relations for they often provided us with the

necessary equipment for large scale operations not recognized in the early directives.

But you had seen some dramatic results out there in the field.

And the results without reservation were attributable to the conscientious efforts of a whole new breed of specialty officers and men that introduced allied science to the Medical Corps.

Statistically there is no doubt in our minds for claiming success. From 1942 through 1945 there were 165,000 cases of tropical diseases -- the prominent ones -- 110,000 malaria, 31,000 dengue, 11,000 filariasis and 24,000 cases of dysentery.

The most important point of these numbers is that as the forces moved northward there was a steep decline in new cases. With landings in Bougainville, disease was amazingly low although it was felt that 50 percent of the troops were probably seeded with malaria.

As a measure of effective mosquito control, in the Treasury Islands no malaria transmitting mosquitoes were found after 7 days of occupation, a testament to their control operations.

On your return to Camp Lejeune, NC, what were your duties?

This was a purely research facility and there were several MSC officers (**Is this possible? The Medical Service Corps wasn't**

established until 1947.) who worked with specific tasks. I was able to sort out notes on the ecology of malaria and its vectors and for other insects that were newly reported from the Pacific. It provided me time to publish these findings as part of the accomplishments the Navy had done in those stressful war years.

And after the war?

I had a short tour of duty in the Office of Naval Personnel--in the Medical Department--went to London on a tour as scientific officer at the Embassy and returned to BUPERS as head of the Allied Section of the MSC.

So this would have been in 1947?

Yes.

You are a physician?

Yes. I returned to medical school at Duke University. I can't forget however how my early university training prepared me well for the role I had in the Navy.

Did BUMED provide the initiative and organization for all of this?

BUMED gave all its support. It took the "kindling" from one

of their own with foresight to develop one of the most remarkable malaria and epidemic disease programs in the military. The consequence was saving lives and reducing the morbidity in troops occupying these South Pacific islands.

The Navy has never been very good, and especially the Medical Department, in recording its history. The history of the Medical Department in World War II seems to be the best we have.

I know there were volumes of material gathered in the South Pacific as it related to this problem, but I have been unable to locate much of what I was aware of. The Army did a better job of recording their efforts.

Dr. Sapero's name certainly has come up in the things I've read, papers published during the war. He seems to have been really quite a man.

He was a gentleman, very knowledgeable, a deep thinker, had much imagination, and was very understanding. He had great vision and foresight as he planned this program of malaria control in the Pacific and deserved a medal for these efforts.

I saw some quotes that MacArthur had come up with about how bad it was.

As I pointed out earlier, the initial seeding with malaria and dengue took its greatest toll early--1942-44. The incidence of malaria dropped but the readmission rates stayed moderately high due to breakthrough from malaria contracted at other highly endemic areas. Dengue with a different course of (?) and contractability showed a drop from 27,117 cases early in '44 to 1,870 in '45. So the overall morbidity rates were significant in view of energetic control.

But the real key to it was the control of the vectors the use of DDT and not much was available at that time?

No it really (?). We began to learn of the hazards of DDT to fish and wildlife long after the war, but there was no room for compromise. The mosquito vectors needed to be eliminated or reduced to provide that safety net for combat troops and support personnel.

But then the war was over and the threat was gone. In 1950 when the Korean War broke out, there were few people left in the Medical Department who had had combat experience, so they were struggling. That shortsightedness, I'm afraid, has not left us.

I agree. Your question leads me to one that I might have anticipated. In my service, I tried to encourage the retention of such officers in the Navy. This group of trained scientists filled

these billets extraordinarily well during the war and shortly thereafter would have contributed greatly to the overall efficiency of the Medical Department if they were encouraged to stay.

Many, of course, were truly university oriented and preferred that environment to fulfill their goals. I believe there was a lack of foresight of the Bureau in allowing these talents to slip by.

I really appreciate you spending time to tell me of your experiences during and after the war.

This has been a fruitful recollection for me and I hope that time hasn't warped or affected my memory too much. I hope this chronology of events of a remarkable group of people within the Medical Department or the U. S. Navy will stir memories in others who walked the same path. I hope I haven't over-glamorized their success, but I feel that these officers and men deserve special recognition as medical personnel of the Navy.