The Global Health CHRONICLES

MALARIA CONTROL: CDC BEGINNINGS

Name Denley, Malcolm, MD (EIS Class 1951)

Date of Interview November 30, 2011

Summary of Interview:

Dr. Denley describes being a part of the Army Specialized Training Program during medical school and being recruited to the EIS (Epidemic Intelligence Service) program by Dr. Alex Langmuir to fill his military obligation. His two-year EIS assignment was with the Texas Department of Health, where he traveled throughout the state investigating reports of smallpox, outbreaks of polio, psittacosis, ringworm, measles, meningitis and other public health issues. He defines the impact the experiences he had on the way he practiced medicine as a pediatrician in a small town in later years. Dr. Denley kept a scrapbook from which he shared materials related to his time at CDC.

Notable Quotations from Interview

On psittacosis outbreak: *"These turkey people didn't much want you coming on their farms talking about their turkeys. There wasn't strong state law at the time that we could just walk in, but we did it like gentlemen."*

On EIS course: "…*they told us not to use the word 'epidemic,' just say 'outbreak' because* 'epidemic' *causes ['panic']."*

On benefits of having participated in EIS*: "It [EIS] really changed my attitude about diseases and how to control them—[to not just look at] the individual patient but [at] the community and [how it] can respond to drives for immunizations or polio or hepatitis or whatever came next. And it was very valuable—all the experience I had with each of these diseases. Some of them I'd never seen before."*

Key Terms in Interview:

Key People Mentioned in Interview:

Key Words:

EIS (Epidemic Intelligence Service); Psittacosis**;** germ warfare; ringworm; smallpox; chickenpox; polio; trichinosis; ornithosis; psittacosis; cholera; bubonic plague; malaria control; Anopheles mosquitoes; DDT; quarantine; measles; meningitis; epidemiology; outbreaks; state health department

Notable Quotations:

Names and number of times mentioned in order of first occurrence in interview:

Eisenhower, President Dwight	2
Irons, Dr. J.B.	5
Langmuir, Dr. Alex	11
McCarthy, Joseph	2
McCoy, Dr. [O.R.]	2
Mountin, Joe	1
Paffenbarger, Dr. Ralph	1
Peavy, Dr. James	3
Sencer, Dr. David	1
Steele, Dr. James	2
Stewart, Dr. [William H.]	1
Wegman, Dr. Myron	1

MALARIA: CDC BEGINNINGS INTERVIEW

I'm Karen Torghele and am with Dr. Malcolm Denley in Alexandria, Louisiana. It's November 30, 2011. Dr. Denley, is it all right if we record this conversation?

Yes.

What I wanted to talk about is the beginnings of CDC. From the letter I sent, you know that this was Dr. David Sencer's project to document the history of CDC. In this phase of the project, he wanted to document how CDC actually got started and to make that information available to future researchers.

To begin with, would you tell me how you got into medicine and how you came to be at CDC later on?

Well, I came from a family of doctors—three uncles were doctors way back in the late 19th century or the 20th century. And one of them lived when I was a young man and he was kind of one of my idols. And I also liked science in school. I liked biology, zoology and all that. And it was just a natural thing for me to go into medicine. I thought about other careers, three or four other careers but I chose this path.

I went to LSU in Baton Rouge, as an undergraduate, and I started school in September of 1941. In December, three months after we started, they formed something called the ASTP—Army Specialized Training Program. The Navy had V12 in which you would get deferred as long as you were in a pre-med or a pre-engineering course. And they would put you in uniform once you got to med school, which we did. I joined the Army. Being color blind, I was in the Navy for about a day but then they discharged me as a color blind person. Anyway, I was in the Army during my med school days.

What years was that?

I finished pre-med in December 1943 and started med school in January 1944 at LSU Med School in New Orleans. We had a large class of about 120. It was paired down to about 60 by the time we finished med school. I don't think you want to hear about the trials of med school, but anyway, after I finished med school in 1947 I interned at Charity Hospital in New Orleans. And by the way, Charity had the largest contagious [disease] unit in the country, so more cases of TB and meningitis and various things than anywhere in the country. Cook County was second, I think. But we got a strong dose of infectious diseases during med school and in my first year of pediatrics. At the time I finished my internship, there were just zillions of doctors coming back from the service that had been yanked from residency programs and they had priority (naturally) to fill the spaces. The spaces were pretty well filled but there was an opening for an internal medicine residency in Tucson, Arizona that was accredited, which I took.

While there [Tucson], the internal medicine resident did pediatrics, too, and I suddenly found I liked pediatrics a lot better—the dynamics of children's growth and development more so than diseases of older people, (atherosclerosis, TB and so forth).

So I applied back to LSU Pediatric Department for a residency in pediatrics. They were still full of veterans. They offered me a fellowship for a year with the promise of a residency after that, so I took that, I took a year of research in acid-base balance and metabolic diseases. And just as I was ready to start my first year on June 30th, the Korean War broke out. I was supposed to start July 1st and all doctors that were deferred during the war were subject to first call, naturally. So we started our residency [assuming] we probably wouldn't finish the first year.

Meanwhile, there was great fear of germ warfare at that time, (germ or chemical warfare). Dr. Alexander Langmuir had the vision—and maybe some other people did, too, but it was his leadership that talked them into allowing the formation of an Epidemic Intelligence Corps of doctors that mainly specialized in pediatrics or internal medicine. They didn't have infectious disease residencies in those days. He happened to be good friends of our chief, our head of the department, Dr. Myron Wegman, who had a master's in public health besides an M.D. at Michigan, I believe, or maybe from Yale, and he was very public health oriented. Dr. Langmuir was a very good personal friend of his. So Dr. Langmuir came to LSU to give a symposium and at the same time he talked to all the residents and young staff members at LSU. He recruited 23 people that started the [EIS] class; five of them were from LSU. One of them was a year ahead of me and one of them was a year behind me. But those five plus Dr. [Ralph] Paffenbarger who was on loan to LSU at the time from Johns Hopkins, I believe. So by signing up early, in the year which ran from July to July, we would be deferred until the end of our residency period. I would get my first year of residency in and that appealed to me greatly because I had three children at the time to support and very little income. Anyway, so Dr. Langmuir made a beautiful presentation and we signed up.

The first class began July 1, 1951. I had my orders; I was ordered to report to Atlanta to be indoctrinated into this program. We had to get Navy uniforms which we never wore, but we had to have a uniform, it was required. People [came] from various parts of the country, California, New York, I think Yale, different places, for two months into indoctrination in epidemiology. They brought faculty from Johns Hopkins to teach the course. None of us had had any experience in epidemiology, so this was a new field for us. We knew a lot about public health and about pandemics and this and that, but as far as how do you collect the data, how do you approach a situation, how do you realize whether it's really an epidemic—although they told us not to use the word epidemic, just say "outbreak" because *epidemic* causes ["panic"]. We received as good as they could do in two months; they fed us epidemiology.

Then we went to Montgomery, Alabama where the CDC viral lab was. They had some outstanding pathologists and virologists that gave us a two-week course in how to collect specimens for viral analysis and how to transport them back to CDC on ice and so forth, and this was important because most of diseases we were working on were viral diseases. All the bacterial diseases had been pretty well worked over and they could be tested in a state lab or private hospital lab, but the viral labs were few and far between. I think NIH had one but there were just not many viral labs around the country. Texas State Health Department had a good viral lab, by the way, at that time.

Anyway, after this period we went back to Atlanta and we were given assignments. Most people were sent to state health departments to work under the state epidemiologist, and some went to the headquarters, some of them went to med schools that had a strong public health service. They sent me to Texas and that's how I ended up in Texas. But Texas, you want me to talk about resistance? Texas had a reputation for being—it is the Lone Star state and in health matters they wanted to be left alone by the federal government absolutely. They'd turn down federal money, they'd turn down federal programs in those days and I was kind of thrown to the wolves. They said, "It may be pretty hostile there."

I said, "Oh I can handle that." Being from Louisiana, it wasn't like it was a strange country.

EPIDEMIC INTELLIGENCE SERVICE (1951-1953)

Public Health Service

Centers for Disease Control and Prevention (CDC) Atlanta GA 30333

INTRODUCTION

This background information includes a description of the formation of the Epidemic Intelligence Service branch of the USPHS and how I became an EIS officer and a member of the very first class formed.

There were about 21 physicians recruited in this first class from various medical school residencies and faculties. We were given an intensive six-week training program in epidemiology and proper methods to investigate outbreaks and epidemics (we were told not to toss the word "epidemic" around as it could cause panic and to use "outbreak" instead). This six-week program took place at CDC headquarters in Atlanta. We were then sent to Montgomery, Ala., for two weeks study of virology and proper methods of collection of specimens for viral culture, etc. This was given at the CDC Viral Lab there.

I was assigned to the Texas State Health Department. The other new recruits were sent to varying assignments all over the USA. A listing of our assignments is on a following page. We gathered periodically during the next two years for meetings, and had a chance to discuss our many and varied experiences.

Dee, Wayne, Gale, and I then traveled to Austin, Tx, and found a nice place to live. I was assigned to the Epidemiology Unit under Dr. James Peavy. He was a great mentor, and we became very good friends with his family. They treated us with such care and love and made us feel right at home. Later, Dr. Peavy became "State Health Officer" and offered me the position of "State Epidemiologist". He had been in private practice in Lufkin, Tx., and understood my reasons for wanting to take a different path than Public Health career. Besides investigating outbreaks, I was urged to try to break down the resistance to any federal programs that was then the common feeling in Texas, including the higher-ups there in the Health Department. Being from Louisiana, CDC thought I would be more successful than a physician from further away. I tried my best, and the initial hostility to a "Federal guy" coming in dissipated [illegible] rather rapidly and I felt accepted. How effective my time there is for others to judge, but I at least got a foot in the door.

PRINT OR TYPE ALL ENTRIES

NAME (First)	(Middle Initial)	(Last)	GRADE	SERIAL NO.
MALCOLM	L.	DENLEY	S.A. SURG(R)	PHS 8547

DATE OF BIRTH	WEIGHT	HEIGHT	COLOR HAIR	COLOR EYES	BLOOD TYPE	RH FACTOR
5-20-24	175	5'10"	Brown	Blue	O	+

SIGNATURE: Malcolm L. Denley, M.D. DATE:

MAILING ADDRESS:

This card, when properly completed, constitutes an application for a Commissioned Officers Identification Card.

Attach to this data card the following:

1. Identification photograph.
2. Return self-addressed envelope.

TO BE COMPLETED BY ISSUING OFFICE

ID CARD NO.	EXP. DATE	DATE MAILED	DATE ISSUED

PHS-1870 9-52 IDENTIFICATION DATA CARD

About EIS assignment from the scrapbook of Dr. Malcolm Denley

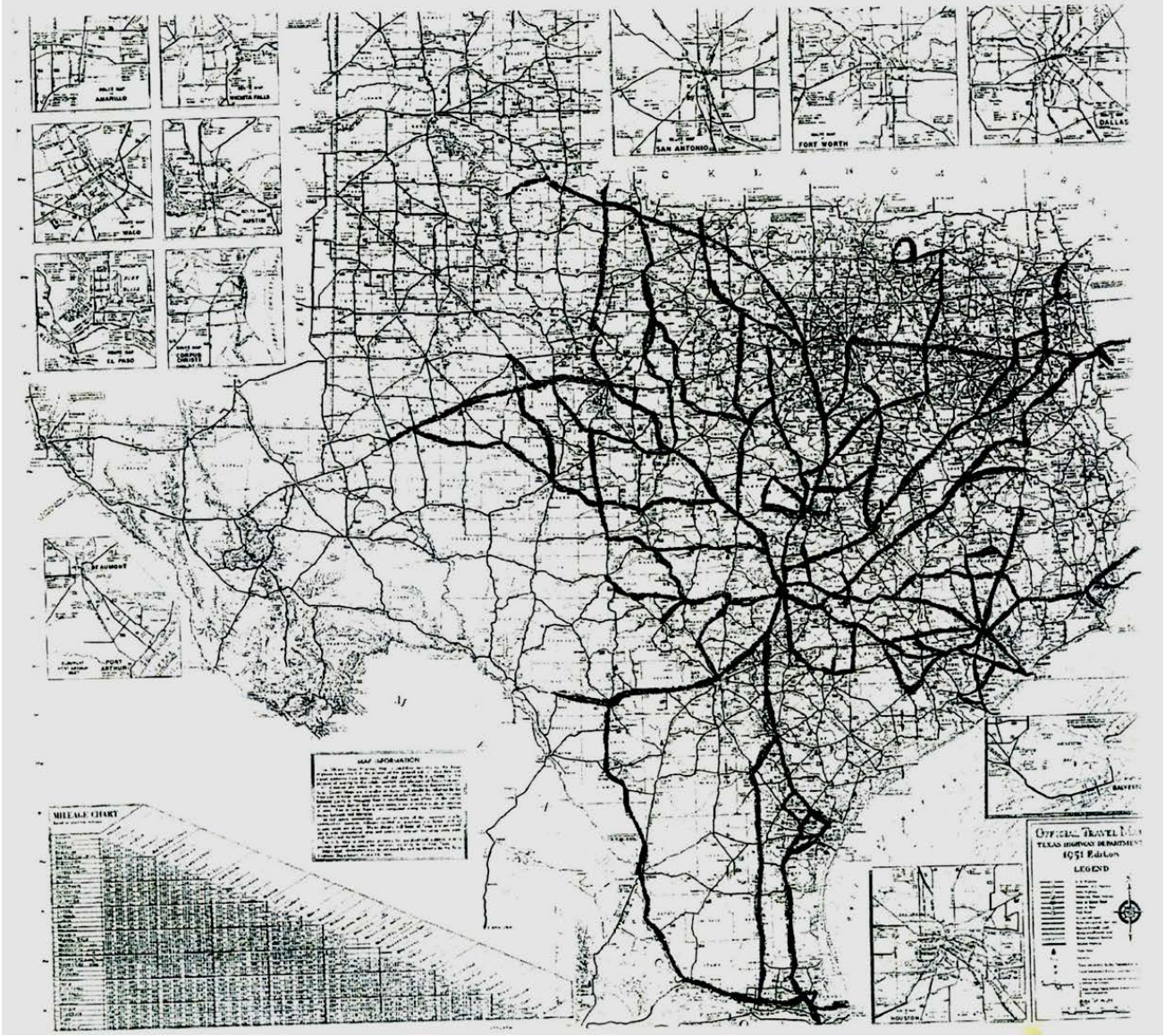
So I went there and they were very cool at first but as time went on, I became very good friends with the state epidemiologist and his boss and his boss, etc. up the bureaucracy. And being the low man on the totem pole, they just assumed I knew more than I knew, I guess, but my job when I got there was to get out in the field. I would leave almost every Monday or Tuesday and come back on Friday.

INVESTIGATIONS

A summary of selected activities follows. A detailed description of a Psittacosis outbreak in given in detail. Portions a book on Psittacosis, of which I was co-author of a chapter is included. Most of my data and reports were filed with CDC and The Texas Health Department, Fragments of some of my raw data is included.

My very first assignment was to go way down in the Rio Grande Valley to investigate an outbreak of many cases of scalp ringworm that had suddenly appeared. I was asked to present my findings at the meeting of Texas Health Officers held in Galveston. These findings were later published in The journal of the Texas Public Health Assn.(copy attached). This was a rude introducation to epidemiology---trying to take scalp scrapings from children that did not speak English!

Also attached is a map of the state of Texas in which I traced my travels during the two years. Many paths were repeated often.



About EIS assignment travels in Texas from the scrapbook of Dr. Malcolm Denley

The very first week I was there, the Texas State Dermatologists' Society asked the state health department to give me some assistance in a ringworm outbreak in the state but mainly in the Rio Grande Valley which is almost at the end of the world from Austin. And so I went down there and tried to put my things that I learned into practice. I went to the school board and I went to the school nurse and we set up. We went to innumerable schools and classrooms and most of the students spoke very little English, but I had to collect hair samples, I had to examine the children and then I had to take samples and label them from any of the suspicious cases. In an epidemiological survey, you try to find a common source, where they got their hair cut, where they did this, that and the other. And the state health department in Texas had a wonderful lab. Dr. J.B. Irons was head of it, and he did the fungal cultures of about four or five different species and found some common sources of barbershops. A lot of the barbershops we inspected didn't use sanitary methods. So this was really an education for the sanitarian at the health department. He would be able to go back and tell them where these cases originated. Anyway, they asked me to write it up, so I wrote it up in the Texas Public Health publication.

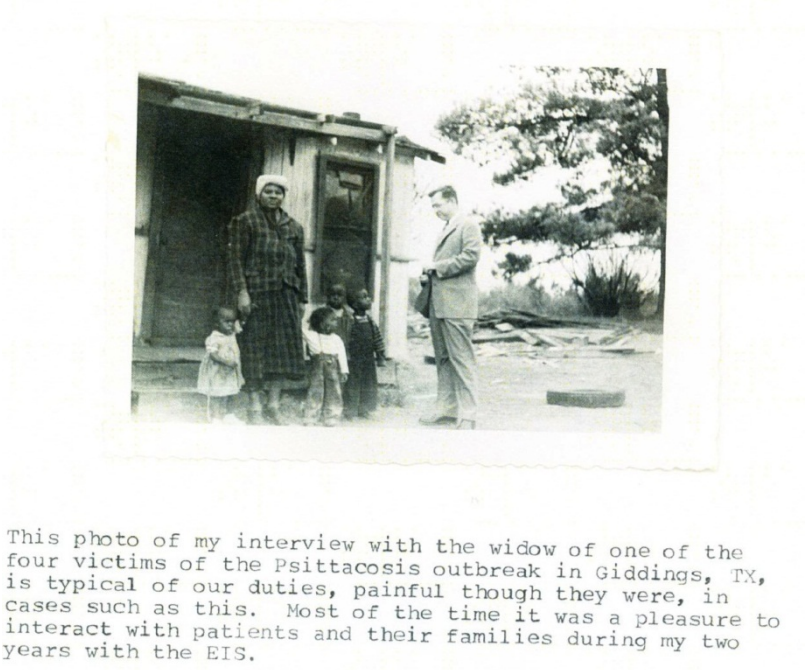
Then every week there was something different. The doctors in Texas at that time had cards they would fill out of any contagious, what they call "reportable diseases" and at that time they were having smallpox—real smallpox in Mexico, but in the United States there hardly had been a confirmed case in the last so many years before. But a lot of the doctors would see a case, they thought it was smallpox and they would check smallpox. Well, every one of them had to be investigated and some of them went down the valley, some of them went north Texas, here and there, and I would go there and I would diagnose "chickenpox." So I would go there, it was a long drive, and say, "It's not smallpox, it's chickenpox," and come back. It was on the wane. But there was one [suspicious case] in Odessa, Texas I investigated pretty thoroughly and took samples for viral analysis and so forth. It would have been nice to have an airplane. But anyway it was a lot of driving.

But there were also real cases. There were polio cases and an epidemic in Houston and Corpus Christi when I first got to Texas. Polio was a real serious thing in those days. The number of iron lung patients in Houston was just astounding, and the number of deaths from bulbar polio was, too.

I went to a place called Turkey, Texas up in north Texas. I investigated some cases of trichinosis from eating raw pigs, and there were quite a few cases there. I interviewed each person that had symptoms and we did skin tests and agglutination tests. Interesting enough, the Trichinella extract that we used for skin tests was developed by Dr. [O.R.] McCoy who was my professor of public health at LSU. It was a pretty big outbreak.

Then one of the biggest outbreaks by far I investigated was an epidemic of ornithosis or psittacosis. There is the town of Giddings, Texas close to Austin that reported they'd had four deaths over just a very short period among the turkey pickers, plus a lot of

them were in the hospital with pneumonia. We, the epidemiologists, and Dr. Irons who had previous experience with turkey pickers having some respiratory disease that could have been psittacosis. It never had been confirmed and never had been investigated thoroughly. Anyway, that was a tentative diagnosis even before I went there, and it was a long drawn out investigation. We secured blood on all the people that survived and had it analyzed for agglutinations for the Psittacine virus. A lot of people were sick all in the turkey picking plant. Of course, we did a breakdown of what part of the process they were working in. As I remember, as you go through a turkey picking plant, they hang them up by their feet and the first person picks the feathers off; he's called the picker. The next one eviscerates the turkey; he's called the eviscerator. And there's a lot of blood and tissue gets in the air and on his hands and all. And then you have the ones that begin to cut off different parts of the turkey. And then ones that box and ship it. The ones that died were all eviscerators and it was just obvious where the greatest risk was. So anyway, after we finished this part of the research, I interviewed the families of the ones that died to see if cross infection had occurred, whether any of the other people in the family had gotten sick, and actually there weren't any secondary cases.



This photo of my interview with the widow of one of the four victims of the Psittacosis outbreak in Giddings, TX, is typical of our duties, painful though they were, in cases such as this. Most of the time it was a pleasure to interact with patients and their families during my two years with the EIS.

1952 Psittacosis outbreak photograph and description from the scrapbook of Dr. Malcolm Denley

But then the big problem was trying to find out what day the turkeys were picked and what farm they came from. That was the biggest chore. We put together timelines and focused down on one farm. These turkey people didn't much want you coming on their farms talking about their turkeys and there wasn't strong state law at the time that we could just walk in, but we did it like gentlemen. I'd go in and talk to them a little bit and then tell them what was going on. I think they were worried about a lawsuit, too, so they would let us draw blood on the turkeys, chickens, guinea hens. Being a pediatric resident, I was very adept at drawing blood on tiny veins. The hard thing was to catch

the guinea hens. The turkeys we could catch alright but guinea hens you have to look off in the distance and reach down like that. But anyway, we drew the blood and we found that this farm was badly infected and, of course, they had to destroy those turkeys. There was another farm that had several cases. We went to a lot of farms just to see if there was any hidden reservoir and we didn't find that. But the virus had never been isolated from turkey before. It had been isolated from parakeets, of course, and possibly some other fowl, but the Texas A&M [Agriculture and Mechanical University], their veterinarian department worked in conjunction with Dr. Irons. I think Dr. Irons isolated the virus, or maybe both of them isolated it simultaneously from some of the tissues, some of the livers and spleens and so forth, of the turkeys. And that was kind of a pretty big event.

There was a had a big symposium in Rutgers on psittacosis in general. They wrote a book and one chapter was about this outbreak and I was a coauthor with Dr. Irons of that chapter. I'll show you the book if you want to see it. And then, of course, we had to present it at different conferences, state health department conference, and it was written up in one of the infectious diseases publications or the lab publication.

It's interesting to hear you talk about what your typical week was like. You didn't see your family very much.

I saw them on weekends. Occasionally I'd stay over the weekend but usually I'd come home on Friday. She was born, Diane, the best thing that happened. It wasn't bad. Are we off the record? Do you want me to mention about the value it was to me?

Yes, that would be great.

Okay. In thinking back on the years I spent in the epidemic intelligence service and going into pediatrics, I think it was just a perfect fit. It really changed my attitude about diseases and how to control them other than the individual patient, but how the community can respond to drives for immunizations or polio against hepatitis or whatever came next. And it was very valuable—all the experience I had with each of these diseases; some of them I'd never seen before. So I think my pediatric training helped me in the public health service. The public health service helped me in my practice of pediatrics.

After I finished this public health stint, I took another year of pediatric residency. They asked me to come back as a chief resident which I enjoyed doing. Then I went into practice and actually utilized a lot of the things I learned in public health. It was a valuable two years to me. I think I was very fortunate to be in that program and just happened to be in the first class. I'm sure the classes have gotten larger.

Each time you'd hear of something, you'd worry whether germ warfare had started. We didn't really relax. I think that was when people were building underground shelters and so forth because the Russians were making threats and we didn't really know what might happen. So I think Dr. Langmuir, his vision was more in the country's interest in

case of a catastrophe but I think in the back of his mind he thought it would really be good to have some trained epidemiologists—they really didn't have that many at the time—that people would learn the technique and explain it to other people and expand. I don't know what percent of the people now stay in public health but the majority of our class stayed in either faculty or med school and one of them became Surgeon General; Dr. Bill Stewart was in my class. Only five or six of us, I believe, went into private practice. That had been my ambition since I went into medicine−to work in a small city.

What year did you start practicing?

1954. Seven years after I finished med school. It takes a long time.

I was wondering what it was specifically that Dr. Langmuir said that inspired you to make the decision to come to EIS.

I honestly can't remember exactly what he said, but he made it sound like it was a challenging job, that we were needed. Not necessarily me, but they needed this core of doctors. So you felt somewhat patriotic about it. He was a good speaker. And I think it was selfish in one way so I could get to finish my year, which the Army didn't guarantee, but it was unselfish in a way that I thought it would be good maybe for the country, so I could serve the country better there than I could as an army doctor somewhere. And I've never regretted it. I've always been proud of my service there.

What was Dr. Langmuir like as a person?

He was very likable. I'd say kind of serious. He didn't joke like some of my professors did. But he was very kind to us and his own staff. He had us over to his house one time, you know, to get everybody to relax. He was so knowledgeable and he liked it done correctly. I thought he was just a fine gentleman.

He was also one of your teachers along with others from Johns Hopkins during your EIS course?

I don't remember the names. There was an article in the *Saturday Evening Post* about EISOs. [It came out] not long after we started.

Part of the history that may not be known so well is how it was that you developed that working relationship with state health department people. From what you say, there was a sense that the state people were possessive of their own territory and didn't want federal people to come in. So you must have really been good to work with for them.

I can make friends pretty easy. I'm not saying I'm superman but I can make friends with almost anybody and if they like me, we can develop a relationship. So in Texas, the people I really wanted to be friends with, we got to be very good friends. We would not do anything dramatic; I'd have them over for supper or something. I think they gradually

respected the fact that I was well-trained up to that point, and I was sincerely trying to do a good job and not just trying to mark time—because I really wanted to learn things and do things right. But anyway, if somebody doesn't want to have anything to do with you, you can only go so far. But they would meet me halfway. I don't mean that they were bad people, they were just self-sufficient in Texas, and I think Texas is still that way in a way.

During your work it sounds like you didn't actually experience much that was related to bioterrorism. Did that sort of die down during those years, that fear?

No, that was I guess at the peak. We thought about it a lot but, you just can't make everything into that. If there'd been true smallpox, that would have been something we would have really zeroed in on. But for most things we found the source; like in the trichinosis outbreak, we found the butcher shop that was using sloppy technique, by epidemiology. We had some leptospirosis but they weren't talking about it being bioterrorism—it was more from contaminated water. And psittacosis, we had a source. It wasn't something flown in, it was endemic in the area.

In each investigation you did, did you have to evaluate whether it was a possibility that it was used for bioterrorism?

I didn't have to do it in writing, but we were told that was our main assignment. Our assignment wasn't to go to Texas to just run here and there. It was to try to—if anything suspicious happened, we would be there on site and know how to deal with the local people probably. So it was implied that we were there for a purpose, different critical states, but they never did hammer it at us to, "What do you think of this?" But it was part of our thoughts, you know.

And I guess over the years when the Berlin Wall fell down and the Cold War cooled off, I assume that epidemiology was more just public health management than a war scare. But it was definitely born out of the warfare. I don't know [if] they would have started it any time soon but that was the reason and that's what got the money from Congress, I guess, to fund it. I don't know the intricacies of how they funded it but I know they have to allot their money in different ways and to allot a lot of money for 24 guys, even though we didn't make that much, it had to come from somewhere.

During those years Eisenhower was President...do you know when the McCarthy era started?

I don't remember. I remember everything about it but I don't know whether it was during Eisenhower's term. Well, he [McCarthy] was worried about communists in the government, infiltrating in the government. Actually, I know exactly when it started come to think of it because one of the professors at LSU, one of my teachers, was accused of being a communist and he wouldn't deny it, he wouldn't agree to it. He was a super guy. He and I wrote a paper together in fact. But he had a Russian name and he finally was withdrawn out of the med school because the pressure came from

somewhere and he had to move somewhere else. He was the best teacher and he was constantly voted the best teacher in pediatrics as far as lecturers. But that would have been in probably '49, yeah. When did Eisenhower become President?

'52.

McCarthy didn't affect us because he was talking about internal infiltrations as far as public health service. I never heard anything about it being infiltrated but he may have said it, but our focus was coming from the outside, not from the "fifth column," or anything like that. We were more thinking about dropper germs or whatever. We were a little bit naïve probably at that time, just like most Americans were. They were scared about this and that and the Cuban Missile crisis came, and we came close to conflict. I think some of it was legitimate. Does that answer your question?

That was a good clarification. I wanted to ask you, when you had your EIS training course before you actually started your work as an EIS officer, what did you know about the [CDC] organization before you came? Were you given any instruction about the organization or how it got started?

Well, I knew nothing about it basically. CDC didn't have any kind of recognition in the field. I don't think they were issuing any kind of regulations or recommendations either. So everything I learned I guess I learned after I got into the program. I didn't know it was as big as it was in Atlanta. It was sort of a secret as far as the general public was concerned. When we got over there, we saw they had a nice building and different layers of care and so forth. It's just blossomed since then. I don't even know when CDC started. Do you know when?

It started as the Malaria Control in War Areas in 1941.

Oh yeah, malaria control.

When MCWA ended in 1946, there were some who wanted the organization to continue and specialize in infectious diseases of all types. They named it the Communicable Disease Center, which started in 1946. It's always had the same initials, CDC.

So it wasn't too long before I went there. I know they had all kind of commissions during the Panama Canal building for the malaria control and mosquito control was a big thing and the federal government I think was passing out money to the states. I know Texas was getting a lot of money to spray because the head of the state health department thought mosquitoes caused all kind of things. He thought cockroaches caused things and mosquitoes and flies transmitted various diseases. He really hated them.

I kind of knew that this was a new program and I knew the public health service hadn't been in the news too much during my med school days. We did have a good public

health course in med school. Dr. McCoy was head of it and we talked about epidemics that occurred; cholera epidemics, bubonic plague, etc... We studied about epidemics but not thinking it would be us using it. So we understood public health to some degree.

Do you remember malaria cases in the South? Do you remember the threat of malaria in the 1940s?

Yes, I do. I remember that. We saw malaria a lot and we learned how to diagnosis it on a blood smear. You could see the little parasites. And it was fairly common when I was in med school; in residency rather because we had the contagious disease unit. But I know there were eradication programs to try to get to the anopheles [mosquitoes] they had to kill. I'm trying to remember what other public health services…I mean malaria control was a big one, though, and every summer they would come by spraying DDT. Good old DDT.

You talked about DDT in your medical school?

Yes, we were taught about that. Actually, it was a big topic because they knew a lot about it when there was polio. They talked about it but they didn't really understand polio when I was in med school.

Were you all assigned to different states in your EIS class? And did any states request an EIS officer?

I really don't know how to answer that. I kind of think that they just put me in Texas. I never heard them say, "We asked for you and we're glad we got you." I think they were glad to have me if the federal government would pay my entire salary, travel expenses, etc. They wouldn't have taken me if they had to share the expenses. It was a gift from the federal government to Texas. Whether other states were the same way I don't know. But I was looked on as a federal guy and not part of them at all. I was attached to them. I was there two years but it took awhile, maybe six months to break down a lot of the resistance. My immediate superior was Dr. J.E. Peavy. He had been in practice in East Texas near Louisiana and he had a lot of friends in Louisiana and we just bonded right away. But I don't know about other states. I don't even know if they knew but we had no idea, we didn't request Texas. I mean I didn't request Texas. They just said, "Dr. Denley, Texas; Dr. so-and-so, California." It was kind of like almost like the luck of a draw.

I've always thought that because I was from Louisiana they put me there [Texas] but there may have been other reasons. I do think, and I've heard them say and Dr. Langmuir say, they wanted to get their foot in the door of Texas; they really wanted to get into Texas. They knew the head doctor wasn't gonna live forever and they knew it was time for modernization to occur, and it did after Dr. Peavy became State Health Officer and he did a wonderful job. I don't understand all these political medical politics but I think that's probably the way it evolved, that they really wanted to get their foot in the door and they offered a person to them for two years. Then they sent somebody

else after that. I know he [Langmuir] wanted me to make a good impression. He said, "Don't antagonize them and don't flaunt your federal status; 'We know more than you know' blah, blah, blah." So I know how to do that pretty well. Does that halfway answer your question?

Yes, it does. I bet you spoke their language, too.

I spoke their language.

That must have helped.

That makes a big difference.

Now I have some more specific questions for you. When you started to learn epidemiology, was that mostly a new field to you?

In public health, we'd talked about—we studied epidemics, how they occurred, why they occurred, but not in the same way. We learned at CDC—they just really taught you the bottom line. But in med school we did learn how sanitation plays a part in plague or whatever and the vectors and the different things that you want to know about an epidemic and how they start and also how they ended after so many people had been infected. It just naturally dies out. I'm trying to remember that big epidemic. I guess it was a flu epidemic. We studied a lot about the 1918 flu epidemic and that was part of our training, too, was to watch for flu; unusual number of [influenza] deaths. Not necessarily germ warfare but because flu can be such a bad thing. I never had any other training in epidemiology and we really didn't have any textbooks. It was all done with taking notes…handouts, too, I guess.

Did they use examples of outbreaks?

Oh yes, that's what they did mostly; techniques and outbreaks. They were very knowledgeable and the faculty was very good. I wish I could remember who they were but it was Johns Hopkins mostly and I'm sure they had a very strong public health department kind of like Yale did.

Had you had any exposure to disease surveillance before you took this class?

You mean gathering data? Well, I did that a little bit different. I did that year of research on acid-base balance where we took patients that were really sick and did a complete analysis of all their blood and tissue, all the things, urine, feces, everything. And very precise, very exact because we were checking potassium and sodium levels in their blood. So I had good training in scientific method but not necessarily in surveillance. I guess by surveillance you mean going out in the community and surveying people? No, I never had the occasion to do that.

Did you have any experience with quarantining people?

Actually, at the hospital, we would quarantine patients that we thought could transmit something back, say measles—if they had real severe measles. You know, people died from measles in those days. So from that point we knew all about quarantine. As far as going to the home, that wasn't our department, that was the local health department's duty. We would report cases to the health department because Charity [Hospital] drew people from all over Louisiana, particularly south Louisiana, so they had a mechanism set up to let the local people know, but the residents didn't have to do that, they had clerical staff did most of that. We would certify it's a positive diagnosis or suspected this and that. Like if you had a meningitis patient, it was very important to get all the contacts and find out who he was around but we also knew that it was so highly contagious that they must start taking some medicine.

So we did have a—it's not surveillance but it would be an alert system—to be sure everybody was contacted that should be. And then we did, I guess some epidemiology. We would try to find out where….say we had a meningitis patient or some sort of parasite. We would try to trace it back from a clinical setting. We didn't have the ability to go out in the community because we were stuck at the hospital, but we could ask questions and talk to family and so forth. And that was a big part of surveillance in a way. We did not just look at the one patient, we did try to get the whole spectrum of how he got it and where he got it and how long the incubation period was, where he was and such-and-such. Nobody was on an airplane, but say it was on an airplane, we'd contact everybody on the plane, and that would be done I'm sure. So does that answer?

Yes, thank you. Can you remember people who stood out in your mind as being very influential on the organization of CDC as a whole? Are there people who were exceptional leaders in your mind and what was it about them that made them influential?

You know, they sent me out in the field and we communicated—and once a year we would go back and have a conference. But as far as somebody guiding me, I was on my own. We were all on our own. We had to send reports on everything we did but hardly ever did they write back and say, "Why didn't you do this and that?"

It would have been nice from a tutorial standpoint but I really felt like I was on my own and I was cocky enough to think I could do it and that if I needed help, I would ask for help. But we had enough people, Dr. Irons particularly, but he wasn't in CDC. We did have some sanitarians from CDC that they'd [Texas] accepted because of the same reason; they paid the salaries and that was part of the clean up. I interacted with them some. I don't remember any of them's names but they were from CDC. But as far as Atlanta, I mean we weren't encouraged to call—we weren't encouraged to do any more than just send in a report. And at times you felt like, "Am I really contributing anything?" but then other times you felt like you were doing some good. Dr. Langmuir is the only one I can remember. I'm trying to remember the head of virology department in Montgomery. He was really good. They gave us a very good course in virology, but I don't remember his name. That was 50 years ago.

Did you ever know Joe Mountin?

Manson?

No, M-o-u-n-t-i-n. He and Dr. Langmuir were sort of the visionaries who got EIS started.

He was also a veterinarian wasn't he?

That was—

Dr. Steele. See, it just came back, it just popped in my head. Was it Ronald Steele?

It was James Steele.

James Steele. And what was her name?

Her name?

You said Dr. Langmuir's assistant.

I don't know her name.

I don't know. I just don't remember anybody but him talking to us. He was a hands-on guy. He didn't just turn us over to somebody, he was there every day listening and lecturing and talking, because it was very limited time. I only had six weeks to learn all that material. It was a lot to learn we felt. He loved to talk about 'shoe leather [epidemiology].'

Working hard?

Well, doing a lot of walking. Epidemiology was—I think I put that part in here somewhere.

[From Dr. Denley's scrapbook] Shoe leather doctors?

Shoe leather medicine, yes.

That's where the EIS symbol comes from, a shoe with a hole in the bottom of it?

Yeah, yeah. I didn't walk, I rode.

Do you have anything that I didn't cover that you think would be important for people to know about the beginnings of CDC?

I'm thinking. I just remember that when we first got together we didn't know each [other]. I knew some of them but most of them I didn't know and you kind of got the idea that these guys are way up here and I'm down here. But then you gradually got to know them, you realized you were about on the same level. I think there were some unusually smart people in there. I'm not talking about myself at all, but unusually bright people in that first class and I'm sure all the classes are that way, but this, I think, was a selective process.

Dr. Langmuir interviewed us. We didn't just sign up like you sign up for an army commission. We got recruited but then he interviewed us and decided whether—I don't know whether they turned anybody down but you had to explain what you had in mind and how much fervor you had and how much you were willing to put into the program or are we just going in to get time served? So he's way up there in my opinion. I know Dr. Steele was very up there because he kind of got into this psittacosis thing and the veterinarian part and all. I wasn't sure whether he was federal or Texas. I think I've already said it but I think whoever put the program together, Johns Hopkins or whoever, did a remarkable job of covering so much material which I guess would take a semester or a year to cover; to cover it in six weeks and feel like we were ready to go out in the field and not half trained. We were not necessarily great but we were capable of doing it right, doing the job right. And I give them a lot of credit for their time and effort.

That's a wonderful place to end. Thank you so much.

Well, I'm not very good with words.

You are a great story teller, and thank you so much for sending the pictures and descriptions from your scrapbook.

END.