Narrator

Reimert Thorolf Ravenholt, M.D., M.P.H. (b. 1925) was the first director of USAID’s Office of Population, from 1966 to 1980. He is widely credited for getting family planning programs started throughout the world and providing contraceptive supplies. He also initiated the World Fertility Survey, reflecting his background in epidemiology. Dr. Ravenholt lives in Seattle, Washington, and has extensive papers as well as a website, www.ravenholt.com.

Interviewer

Rebecca Sharpless directed the Institute for Oral History at Baylor University in Waco, Texas, from 1993 to 2006. She is the author of *Fertile Ground, Narrow Choices: Women on Texas Cotton Farms, 1900–1940* (University of North Carolina Press, 1999). She is also co-editor, with Thomas L. Charlton and Lois E. Myers, of *Handbook of Oral History* (AltaMira Press, 2006). In 2006 she joined the department of history at Texas Christian University in Fort Worth, Texas.

Restrictions

None

Format

Twelve 60-minute audiocassettes.

Transcript

Transcribed, audited and edited at Baylor University. Transcript has been reviewed and approved by Reimert Thorolf Ravenholt.

Bibliography and Footnote Citation Forms

*Audio Recording*


**Footnote:** Reimert Thorolf Ravenholt, interview by Rebecca Sharpless, audio recording, July 19, 2002, Population and Reproductive Health Oral History Project, Sophia Smith Collection, tape 2.

*Transcript*

Today is July 18, 2002, my name is Rebecca Sharpless and this is the first oral history interview with Dr. Reimert Ravenholt. The interview is taking place at Dr. Ravenholt’s home on the shores of Lake Washington—

— in Seattle.

— in Seattle. We’re sitting on the third floor looking out over the lake on a beautiful day. This interview is part of the Hewlett Foundation work on population pioneers. Dr. Ravenholt, thank you so much for allowing me to come spend time with you today.

Well, it’s a pleasure.

I had thought, as we’ve talked this morning, we discussed some of your growing up years on the farm in Wisconsin, and let’s start at the beginning. When and where were you born, sir?

Yes, I will just rough in quickly as I can—my childhood. I was born on March 9, 1925, on a dairy farm halfway between Luck and Milltown, Wisconsin. I was actually the sixth of the ten children that my mother had, but her firstborn died at six weeks, and so there were the nine of us and I am the middle child of the nine. And that has continued until the present, because we’re all still living in our seventies and eighties. When I was born,
on this little farm my mother had five children under the age of six. My oldest brother, Albert, then five and a half, Halvor, then twins Eiler and Johanne, and then me. So, how she did it, I don’t know, because we didn’t have electricity, running water, indoor toilet. It was almost as though we were born in the nineteenth or even eighteenth century. It was fairly similar, because quite a lot of the time we didn’t have an automobile that worked, either. But, our mother, Kristine, was an extraordinarily able and well-directed person. Our father was a brilliant person—both of them were well educated. My father had had a couple of years at the University of Wisconsin, and in Danish schools. Our social home, there in Wisconsin was actually West Denmark, Wisconsin, which was a small Danish colony. And, even though my parents had both been born there, they still held very much to the Danish. They were completely bilingual. We spoke Danish at home and went to Danish church at West Denmark, and summer school to learn to read and write some Danish. So, I could almost as well have been born in Jutland, as in Wisconsin.

Sharpless: When you say your “social home,” what do you mean?

Ravenholt: It was where we went to church, where we went for any holiday, and where we congregated with many relatives.

Sharpless: All of them Danish?

Ravenholt: Yeah, just about all of them Danish, because my four grandparents had emigrated from Denmark to there. Yes, so it was very Danish. And we didn’t really learn English until we started first grade. Then, of course, we learned it quickly and had no problems that I recollect. We grew up on a farm, and my
first memories are really during the Depression of the 1930s. I can remember when the dairy farmers, trying to improve the prices they received, went on strike. (laughs) Well, they ought to have had better sense. When you’ve got a herd of dairy cattle, and you strike, that means you don’t deliver it anywhere, so milk accumulates and you must do something with it. I can remember all this milk collecting and trying to make cheese out of it, and butter and so forth. Interesting. Actually, before that, beginning in the 1880s, my father’s parents, Anders and Hanne Ravenholt, participated in the creation of the first cooperative creamery in the state of Wisconsin and it may have been the first one in the U.S., I’m not sure. But my grandmother, Hanne, became the butter maker. She’d been trained in butter making in Denmark. So, our lives were interwoven with dairying and creameries throughout our youth.

**Sharpless**  
You told me a story before we started about your starting to milk when you were about six.

**Ravenholt**  
Yes, on the dairy farm, I can remember, as soon as I was old enough to do it, when I was about six, I can remember a Sunday, I wanted to show how capable I was, or something. So, I went down to the barn about four o’clock and started milking the cows and by the time my father and brothers came down there, I had milked four or five cows. Not so well, I’m sure, but I guess they liked my spirit, even if my milking was not perfect. In my youth I did a lot of milking, and when I was twelve, living on another farm, a neighbor hired me to go with his hired hand to milk every morning. His hired hand would pick me up about 5:30 A.M. We would travel a mile or two, and I’d get the cows and then he and I would milk the cows and get
home in time for breakfast and regular work, and then again, in the evening. I did that daily during that summer. I can remember, I was at West Denmark on the Fourth of July, and at about four-thirty I had to leave my friends and go with Verner Petersen, a cousin, to get the cows and milk the cows. And for this I got three dollars a month.

Sharpless

Wow.

Ravenholt

That was five cents in the morning and five cents in the evening. And then when I got the money, being as poor as we were, I remember my mother helped me pick out in the Sears-Roebuck catalog a jacket for the winter. So, I applied the monies to get a winter jacket.

Sharpless

That was a big help.

Ravenholt

Yeah. (laughs) So, these were formative experiences of my youth. Another formative experience was an attack of the flu at age twelve.

Sharpless

Yes, but let’s put that on the tape. That’s a wonderful story.

Ravenholt

Well, in 1937, it must have been February, there was a flu epidemic in Wisconsin, and many other places in the U.S., I’m sure. And I got the flu and I was home in bed with fever for three-four days. And, as usual, I loved to read, so I read, even though ill. I read as much as I could, in bed. And when the fever receded, something had happened to my eyes. It—when I tried to read, it just made me dizzy. There was something I couldn’t explain, that had happened to change my reading ability. (motorboat passes) It was so severe in those early weeks, and for months, actually, that I couldn’t even read the funny papers. My sister read the funny papers to me. Then I went back to school at Milltown Elementary School, in the sixth grade. I tried to read, do
my schoolwork, but it produced a splitting headache. And so the teacher let me go home. We lived a couple miles from school, and I walked home. I remember it was winter with snow on the ground, because there was a bright sun and I couldn’t stand to have my eyes open looking at the sun on the snow, so I’d take a peek down the road, then walk with my eyes closed for awhile, then just take a peek every now and then to make sure I was staying at the right place on the road until I got home. Well, my visual difficulty gradually got better, but I couldn’t watch a movie. They had some free shows on Saturdays in Milltown, but I couldn’t stand to watch a movie, then. And for some years, I was limited in how much reading I could do. I think this changed my I/D ratio.

**Sharpless**

Your I/D ratio being—

**Ravenholt**

Intake to Digestion of information. So, instead of reading more, I think I thought more, because I had to do something. So, I would think very deeply about things rather than intaking more information. And I think that really did tilt my tendencies throughout my life. So, I’ve always enjoyed thinking most deeply about various phenomena and actions that I have been working with.

**Sharpless**

And what have been the ramifications of that?

**Ravenholt**

Well, I think I’m more independent in my thinking and in my decisions than most of my peers. And that is sometimes a problem when one sees a different solution to something and wants to publish it. Then you may have difficulty publishing it. And it may make you unpopular, too, when you see a different solution than the way your peers are viewing it. Many things along
the way, but I mentioned to you that my view of statistics—I’ve done a lot of research analysis and publication during my professional life and when I took my master’s degree at the University of California at Berkeley in epidemiology and public health, I was taught the usual statistics, including Chi-square tests, and “p” values and such. And I knew there was something basically not right about them, but in studies for a degree you pretty much have to do whatever the professor says, so I learned Chi-square tests. But, the view that there was something unsound in the use of esoteric statistical tests of significance always stayed with me and I’ve published repeatedly, in various ways to that effect. But only half a dozen years ago did it fully come to mind why these esoteric tests of statistical significance are not valid. And that is, that it violates the scientific principle that one must use Consistent Precision when assembling and analyzing scientific data. I did manage to publish this in 1997 and ’98 at CDC in the *Epidemic Intelligence Service Bulletin*. (Epidemiology: The Ultimate Health Science; and Esoteric Statistics: the Quackgrass of Epidemiology, at www.ravenholt.com.) An enormous amount of money is wasted in many ivory towers by statisticians and others devoting undue time and effort toward trying to analyze the statistical significance of numbers that one finds in studies, instead of simply accepting those operative numbers. The fallacy is that they are only applying this kind of precision to the actual numbers resulting from a study, not to the other main determinants of the worth of that study—such as the intelligence, the specific knowledge, the honesty, and the care with which the investigators have done the study, the study plan—which it’s appropriate or not, how appropriate is it, and so forth. You
simply must not expend all this time and effort to do esoteric tests of the statistical significance of the numbers resulting from studies, when you don’t have that kind of precision over the other determinants of the worth of the study. So again, I think sometimes this derives from thinking very independently and deeply about whatever I’m doing. Likewise, thinking deeply about whatever I was reading led to my diagnosis of the underlying cause of death of Meriwether Lewis, just three years after returning from the Pacific – that it was caused by progressive neurosyphilis. No one else had ever published to that effect in 180-some years. But again, once I saw the pattern—once I understood it—because I’d had wide experience with many infectious diseases, I had no hesitation publishing to that effect.

**Sharpless**

Hm-hm. Hm-hm. So—

**Ravenholt**

I mentioned other things, such as some farm experiences that have fashioned my life—my way of attacking things. One memorable experience was going to Dakota in the harvest fields when I was seventeen and eighteen and working, for example shocking grain all by myself in endless fields, twelve-hour days, day after day. You’d go crazy unless you did a lot of thinking about all kinds of other things while busy gathering the bundles and putting them in shocks.

We were very poor during the Depression years, because we lost our farm to foreclosure in 1935 when I was ten. Our father worked for the WPA (Works Progress Administration) during the next five years and we gradually acquired more cattle; so we had a small dairy farm that we boys took care of, so we always had plenty of work with that and cutting wood and all the other
things. When I was eighteen my Dakota experience was really the final farming experience because after that I went to Minneapolis and worked at a variety of hard-labor jobs. After a half a year, I realized that I didn’t want to do that forever. So then I decided to go to the University of Minnesota and get an education.

**Sharpless** What types of things were you interested in when you were a child? Were you interested in medicine?

**Ravenholt** Oh, some, but not so particularly. Our father was brilliant, but he was a hypochondriac, so we heard a lot about doctors and nerve medicines and so forth. But I didn’t have a clear knowledge of what I wanted to do.

**Sharpless** You just knew you didn’t want to do physical labor.

**Ravenholt** Well, I knew I needed to get out of the rut I was in, somehow. When I applied at the University of Minnesota, they sent me forms that I should fill out. And on the form—this is now the spring of ’44—they asked me to put down my major. And I wrote down “engineering or pre-med.” By then my sister, Johanne, was in nurse’s training at Fairview Hospital, in Minneapolis. And so, I was learning more about medicine from what she was telling me. Earlier, I had thought of going into engineering, but then I got a job working for the engineering department of the Milwaukee Railroad as a surveyor’s helper, and listening to graduate engineers bitching about their pay, and their hours, and so forth, sort of lessened my enthusiasm for engineering. And what I learned from my sister indicated that if you became a physician you had many advantages. But anyway, I got a letter back from the University of Minnesota saying I would have to make a decision on what major I’d go into.
I can remember lying awake one night, wrestling, engineering or pre-med, pre-med or engineering. It took me most of the night before I decided on pre-med.

**Sharpless**

Let me ask you, Why were you not drafted into World War II?

**Ravenholt**

Oh well, you'll find that in this account of “Dakota Harvest Adventures.”

([www.ravenholt.com](http://www.ravenholt.com)).

**Sharpless**

Right.

**Ravenholt**

Actually, when I was a senior in high school in 1943, a new program was instituted called the “V-12 Program.” Again, it was a product of President Roosevelt and Harry Hopkins, and the navy. It was a program by which the navy could select promising youth and put them in a sort of a holding pattern until they were needed. So, we senior boys took examinations, and then shortly thereafter I was invited to go to Milwaukee for physical examination and processing for the V-12. I hitchhiked down there. It was April, and I was standing along highways, freezing badly. I got down there and the next morning I went for examination and they discovered “protein in my urine”. I think it was because I was freezing so badly that previous day. But they rejected me from the V-12 program. Which would have been ideal because they sent you off to a university until you were needed, and then after the war I would have had the GI Bill and everything; but that knocked me out of that. So I knew I’d be coming up for the draft the summer when I was eighteen. And I did get a draft call while I was in Dakota. So, I returned from Dakota to Wisconsin and on the first of September, 1943, went with a busload of other draftees, again to Milwaukee. This time, everything went
along ok until a doctor put a stethoscope on my chest and then said, he wasn’t sure, but he thought he might be hearing a heart murmur. So, he called an adjacent doctor to listen, who said he didn’t hear one. So, they called over a third doctor who listened, who thought he heard one. They called over a fourth doctor; who did not hear one. Then they called over a fifth, and last, doctor who listened and said he thought he heard one, too. So they voted three-to-two that I had a heart murmur, and rejected me.

When I got back to Luck, Wisconsin, my folks seemed kind of happy that I’d been rejected so I wouldn’t become canon fodder. I went back out to finish the harvest in Dakota. I’d never really thought about my heart before that much, at all. Because I was active in football and basketball and so on, but after I got back out to Dakota and was pitching bundles, it must have got on my mind, because I developed a severe pain in my chest, in the vicinity of my heart. Until it seemed I could hardly lift a bundle for awhile. But after a bit it ceased. I had heard that there was a relationship between bad tonsils and heart murmurs. So, when we finished the threshing and I was staying with the Berners a few weeks to help with some plowing after the threshing, I decided to get my tonsils out. With my boss lending me the car, I drove to Hankinson, North Dakota, to the GP there and told him I’d like to have my tonsils out. He looked at my throat, and said they were somewhat enlarged and if I’d come back the next Monday, he’d take them out. So, I returned the following Monday, and he set me up in the surgical chair. I suppose he must have tried to inject some anesthetic, but I’m sure it never took, because that was the most agonizing experience I have ever had. (laughs) But, he did
finally succeed in removing my tonsils. Whereupon I stood up and I asked him, “How much?” To which he replied, “Thirty dollars.” I paid him, and was just leaving, when he said, “You better rest awhile.” So, I rested on his couch for a while and his nurse brought me some ice cream, but I couldn’t eat it. It hurt too much. Then I drove home the twelve miles, and the next day was out shocking corn, but I was in misery because of pain and bleeding and difficulty swallowing during most of a week. Such was life in those years. I plowed until the end of September, then went back to Wisconsin and helped with dairying and cutting wood for a couple of weeks, before going down to Minneapolis and working at various labor jobs.

Then, in February, I still wanted to get into the army, so I wrote to my draft board at Balsam Lake, telling them I really wanted to get into the army. They said, Okay, they’d send my record to Fort Snelling, in Minneapolis. After awhile, I got a letter from the Draft Board, requesting I report to Fort Snelling, on the outskirts of Minneapolis for induction into the army. It was in February and very cold. This time, I went through the regular examination without difficulty. But at the end, there was a doctor checking records, and he said, “Oh, I see you were rejected down at Milwaukee last summer.” So, he listened a little bit to my chest, and then he rejected me, basically because I’d been rejected at Milwaukee. It was after that I gave serious thought, how I could get out of the rut I was in. And that’s when I decided I better get myself over to the university.

*Sharpless*  Okay, let me turn the tape over.
**Side 1, tape 1 ends; side 2 begins.**

**Sharpless**
So, you lay awake, and then, based on what your sister had said, and other things, you decided to go pre-med?

**Ravenholt**
Yes, I was aware that pre-med offered greater flexibility in what I would take than did the engineering curriculum. Anyway, I kept working for the Milwaukee Railroad, engineering department; and that summer I had my own train. They made me director of the weed-spraying train. I guess I knew Agent Orange long before they did in Vietnam, because these were herbicides. On these rural railway lines, ordinarily, if nothing was done the weeds grow up and get on the rails and then the train—the drive wheels slip on the rails. So, they make it a practice of spraying herbicide on the right-of-way, each summer. And for this I had my own train. We had a steam locomotive, with an engineer, and a caboose with a conductor. Then three tank cars for herbicide, and a spray car out front was a modified railcar with a canopy over it. Anyway, we moved along about twenty miles an hour, spraying the right-of-way with herbicide. And, indeed, I was the director of this train, so I'd tell the engineer where we would be going and stopping, and all that. It was quite a nice little change from farm work. At the end of September, I started at the University of Minnesota.

By the time I started at the University, I'd only saved $150.00. And I can remember the entering tuition to the University of Minnesota in the fall of 1944 was $37.50, for the fall quarter. With the help of my sister, I bought a good suit for $54.00. Then paid for a month’s board and room and some books. And then got started immediately looking for part-time jobs. I
remember the first one I got, making sweeping compound in an old
warehouse in northern Minneapolis—a miserable job. First we unloaded
railroad carloads of sand, and then of sawdust, after which we mixed it in an
oily, dirty combination, then sacked it and loaded the sweeping compound
back into railway cars. I wore a certain set of clothes for this work, which I
did nights and Saturdays. After a month or six weeks, I quit that job and got
others. But I remember, some months later, having stored those work
clothes atop my closet, I disturbed them and the smell of sweeping
compound just about made me sick. (laughs) I got lots of part-time jobs.

When starting at U of M, I’d moved into the Students’ Cooperative at 1721
University Avenue, SE in Minneapolis—right on the campus—which had
been an old fraternity. And so, it was really good because we were living at
minimal cost and had all the advantages of fellowship, right by the university.

In my second year, I was invited to become the business manager of the
Students’ Cooperative by a shirrtail relative, Hermod Strandskov, a very able
CPA, who, in a couple evenings, taught me enough about bookkeeping and
accounting that I could keep proper log records of all income and expenses,
sufficient to make monthly and annual profit and loss statements each
month and keep the record, and so forth. And so I took over. And the
reason I had to take over as business manager, was that the previous business
manager—a student—had failed to do his work; had not made monthly
profit/loss statements during six months. And this happened to be the fall of
1945, just after the war, when the OPA—Office of Price Administration—
went off and ceased to function in September. So, prices went up sharply.
And when I began, the first thing I had to do was a profit and loss statement for the last six months. Which I did. And when this was done, I discovered that for every dollar we were collecting—we had forty-some young men living at the students’ co-op plus a large number of other students just eating there—we were actually providing them a dollar and eight cents worth of food. And we were paying for all the overhead—the cook, et cetera. So, the bigger the volume, the bigger the losses. Of course, we rapidly had to make some adjustments. We had been paying $6.50 a week for the three meals a day, except only two on Saturday.

**Sharpless**

We being the boarders or we being the co-op?

**Ravenholt**

Well, both—both the forty resident fellows, and up to about a hundred boarders in addition. We raised the price from $6.50 to $8.50 a week. For $8.50 (laughs) we got breakfast, lunch and dinner five days a week plus breakfast and lunch on Saturdays. So, prices were very low. Actually, even at $8.50 we managed to make a little money so we could begin to make improvements in bathrooms, et cetera. Initially, we got our milk delivered in ten-gallon cans, and we would just simply fill pitchers and put them on the tables. Then the health department decided to implement a program against that. We had to buy a cooler—a cooler that would dispense the milk to individual users from a refrigerated ten gallon can. That, of course increased the cost. We were really very concerned about the increased cost of this. Because nobody—as far as we knew, was getting sick from the old way of dispensing milk. Last fall, when I was in Minneapolis for a bit—

**Sharpless**

—hit the pause.
Ravenholt: I'll show you something.

Sharpless: Okay, hang on. Okay, so you went back to the co-op last fall?

Ravenholt: Yes, I gave a seminar on cardiovascular disease at the University of Minnesota in Epidemiology. And I went over to the Students’ Co-op, and there was a helpful person there who found the old logbook that we used back in ’44, ’45, ’46, ’47, ’48, to keep the records of every expense.

Sharpless: I'm looking at the ledger sheets, so that’s great.

Ravenholt: Recording all expenses in this log book was a wonderful discipline for me.

Sharpless: Yes.

Ravenholt: I’ve thought since then that I learned more from getting my board and room for three years doing this—collecting all the money and paying all the bills—than I would have learned from many classes. On Monday evenings, I sat right at the head of the stairs that went to the basement, which was where the kitchen and dining room were, and I would collect, $8.50 from each boarder. It was then I developed my signature RTR because I didn’t have time to write my long name.

Sharpless: Kind of like a cipher, yeah. (laughs)

Ravenholt: Yeah, I’ve done that ever since.

Sharpless: So, you do three lines then the loop on the R and then the loop over the T and the second R at the same time.

Ravenholt: Yes, this worked very well, collecting the $8.50 or the monthly fee for the ones living there. I collected the money. I banked the money, and I employed the cook and a few others on occasion, and paid all the bills, and did monthly profit and loss statements and annual profit and loss statements.
Sharpless

That’s fabulous training for an undergraduate.

Ravenholt

(talking at the same time) I wonder how many quarters of accounting I would have had to take at a university to become as really knowledgeable about this as I became simply from doing it.

Sharpless

And what a huge responsibility for an undergraduate.

Ravenholt

Yes, I was not in accounting, but in pre-med. While working for the engineering department at Milwaukee Railroad, I had improved my printing. There was an engineer there who, between trips, asked me do some printing, so I learned how to print more neatly than I otherwise would have. My records at the Students’ Co-op were done in ink, so I had to be quite careful not to make many mistakes. (moves papers) And, I’ve often thought how valuable it would have been for my children to have had the same experience. But of course, by then I wanted them to have a better time in college than I had had because I naturally didn’t have as much free time as I might have wanted to have in college.

Sharpless

Right. How did your formal curriculum go?

Ravenholt

Okay. I was in an accelerated pre-med curriculum which had been put into effect during the war, and so they condensed into three years the premedical studies that would ordinarily take four.

Sharpless

(speaking at same time) That sounds challenging.

Ravenholt

I was ordinarily carrying seventeen or eighteen credits per quarter. And so it baffled me a bit when my—three of my children subsequently went to the University of Washington and they were taking thirteen or fourteen credits per quarter, you know. At Minnesota they had designed some special courses
for the accelerated curriculum—intensively taught you, you know, algebra, geometry, trigonometry and—just touching a little bit on calculus.

Chemistry was where I really learned to study. I'd never really learned to study in high school—small high school—only thirty-six in my graduating class. We lived on the farm, we didn’t have any electricity. We had morning and evening chores. So, I never did any studying at home. And the only studying I did, really, was noon hour at school. When taking math or chemistry I tried to do whatever I could at noon hour. But, I was mainly interested in football and basketball (laughs) and reading. Always interested in reading. But now, starting at the University of Minnesota, mathematics and chemistry and physics and zoology were the main courses in these first several pre-med years. And I can remember very vividly being at the Students’ Co-op in my room at a little desk with my face against the wall and having to learn chemistry. It was agonizing, and I had to force myself to stay at that desk and study rather than doing all the other things that I preferred doing. But, there was no escape from it. In chemistry, no matter how capable you may be, you actually do have to study. The first quarter was very difficult—not having studied much in high school, I got three C's and a D; the only D I ever got in my seven years of academic studies was in English that first quarter. That quarter mainly taught me what I didn’t know. But, I somehow began to really study in chemistry. Then, in the second quarter, I can just remember, at Minnesota, if you wished, when you took your final examination, you could put in a penny postcard, and the professor would
send you—during Christmas vacation—your grade in the mail. I was then working each evening in an engineering department near Honeywell in south Minneapolis. I was working from four to eight—I really had a pretty good regimen going, because I’d take my courses mainly in the forenoon and early afternoon, then take a streetcar down to the Ohio-Heidbrink Engineering Co.; worked in the engineering department from four until eight p.m., then I’d take a streetcar home again. So it would be like 9:30 by the time I got back to Students’ Co-op, where the cook would have left supper in the oven for me. After eating, I cleaned the kitchen and dining room floors, for which I got certain credits. So, by the time I got to my studies it’d be after ten o’clock and I’d be kinda tired. Almost too tired to study. So, it went on like that. But that’s how I made my money. Oh, yes. In March 1946 I phoned home to Luck and I spoke with my brother, Otto, two years younger. He said something about an A in chemistry. “Oh, good for you,” I said, “I'm hoping to get a B this quarter.” He said, No, you got the A. (laughs)

Sharpless

Oh, he got the card. Okay.

Ravenholt

He got the card at Luck stating I’d gotten the A in chemistry. So, that was really a great spur for me to get on with studying. It showed that I could get some results if I really applied myself, which I did, increasingly.

Sharpless

Was there a clinical component to it? (motorboat passes closer)

Ravenholt

No, there was laboratory—chemistry laboratory in qualitative analysis, and quantitative analysis, and Organic Chemistry. Oh, I had lots of chemistry—Physical Chemistry. And it really was a wonderful discipline for learning how to study. Chemistry was really for me the most important of my pre-med
studies. Of course, the thing that I was aiming for was to get into medical school. In 1946 the competition became additionally intense because the veterans enrolled in large numbers.

**Sharpless**

Right.

**Ravenholt**

Many of these were more experienced, more mature and so forth. And I think, actually, studies that would perhaps get one a B in ’45, before the veterans came back, would only get a C after they came back. It became more difficult to get the grades that one needed—the A’s and B’s. But, somehow I managed to get enough that in the spring of ’47 I was accepted for the next medical school class beginning in the fall of ’47. That summer I had my first real release from the study grind. My brother Otto and I went with several colleagues—students from the Students’ Co-op. We went west. One of them drove. He was going to visit an uncle in Seattle, and Norwegian student [Arne] and Otto and I rode with him to Ellensburg, from where Tom went on to Seattle, while we went southwest to Portland.

**Sharpless**

Portland, Oregon?

**Ravenholt**

We stopped at Sunnyside, Washington. My older brother, Albert, had married a girl from Sunnyside, so we visited there a couple of days and then went on to Portland. We were looking for any kind of work, but we could not find work in Portland because rain had ruined the cherry crop and the lumber mills were on strike. We couldn’t even get a dishwashing job. So, realizing that, I decided to hitchhike down to Los Angeles, where my father and my brother Halvor were, and try to find work down there, which I then did. And I worked the rest of the summer—several jobs—punch press
operating at first. Then, mainly I worked as a soda jerk for Simmons Drive-In. I could say many other things about it, but suffice it to say that in the latter part of September, I hitchhiked back to Minneapolis and started medical school.

**Sharpless**

Well, do you want to stop here for a little while?

**Ravenholt**

Maybe we should check with my wife Betty.

*Tape 1 ends; tape 2, side 1, begins.*

**Sharpless**

Okay, this is the second tape with Dr. Reimert Ravenholt on July the eighteenth. Okay, Dr. Ravenholt, we—tell me about medical school.

**Ravenholt**

Well, medical school was a substantial challenge, but in some ways not quite as critical as pre-med, because necessarily during pre-med I’d learned to study. (laughs)

**Sharpless**

Hm-hm.

**Ravenholt**

And learned many things that I absolutely needed to learn.

Pause in recording

**Sharpless**

Medical school—you’d learned things in under—in pre-med.

**Ravenholt**

Yeah, it was a good adventure, actually. It starts with a bang—coming to medical school. The first day we started in the anatomy lab. Many of the medical students came from medical families—fathers who were doctors, grandfathers who were doctors, friends, and other relatives, so on, whereas I had had very little exposure to doctors. I was living at the Students’ Cooperative. Unfortunately, I had not learned the importance of selecting a skinny cadaver, so I ended up, along with a partner, with a big, fat, Mexican cadaver. Which meant spending the next six months carving through fat to
find vital structures. (laughs) Anyway—in some ways that was just as well, because it was more difficult, we may have learned better. We did not use gloves. We just started working dissecting certain parts of the body. We had to handle all this grease and formaldehyde during several hours lab in the afternoon. Immediately after which I’d go back to the Students’ Co-op and eat dinner. Well, you can’t wash the smell off your hands, you know, the formaldehyde smell stays through multiple washings. And so, I developed a little habit then, of taking a piece of bread by a corner, eating around it and discarding the corner I had taken with my hands because I could smell the formaldehyde. (laughs) And that little habit stayed with me, I think for most of ten years until I forgot about it. But, that whole anatomy lab thing is quite a compelling shock—you either get immersed in it or you are repelled. I remember, there was one sort of shortish girl who I understood had had straight A in pre-med, but who was so repelled by the anatomy lab that after three days she quit medical school. Just couldn’t stand it.

**Sharpless** It’s not her thing.

**Ravenholt** Yeah. It really does make a profound change in your perspective. There were many other tough courses in physiology, bacteriology, and the preclinical courses in the first year and most of the second year.

**Sharpless** How soon did you have to declare a specialty?

**Ravenholt** Oh, you don’t do that in medical school. No, that’s something that happens after medical school. At that time, it was something that happened after internship. Well, let me just finish the medical school. What else?

**Sharpless** What about your clinical experiences?
Ravenholt

Well, this mainly began in the third year, when we began to learn elementary things—diagnosis and care. I lived at the Students’ Cooperative during my first year in medical school and then in the spring of that year I married. Thereafter we lived in apartments; and I joined the Phi Chi medical fraternity. But, in the last couple of years of medical school—junior and senior—I worked as an extern in Mounds Park Hospital in St. Paul. Every fourth night and every fourth weekend, sharing the duty with some of my classmates. In this suburban hospital, one would be the foremost medical person in the hospital during nights and weekends. So, you had to try to handle anything that needed handling. This may sometimes have been a bit tough on patients, but was a great learning experience for medical students. Indeed, I found that a very helpful experience. In medical school one is often overwhelmed by the information flood, with thirty-some hours of class a week. So, you’re really sponging up as much as you can of new stuff. Somewhere along there in the spring of my junior year [1950], an epiphany came to me. One day, while sitting in Eustice Amphitheatre attending a tumor clinic—during which a professor demonstrated a succession of cancer patients while discussing their cases, there came to me, out of the blue, the sudden realization that cancer was surely an evolutionary phenomenon; that the development of a cancer in a tissue was analogous to the development of a new species of plant or animal on earth—both being the product of evolutionary change due to relentless reproduction and turnover and the natural selection of the more proliferative cell clones. The body has these zillions of cells grouped in various tissues, but to maintain function they have
to reproduce and turn over—I mean the cells have to reproduce, so there’s cellular turnover. Wherever there is unit reproduction and turnover, there is evolution occurring. And suddenly, it came clear as a bell that the best way to understand cancer is to apply evolutionary principles. One must apply evolutionary principles to understanding the development of each type of cancer. And as soon as it hit me, I was quite confident that this was true, even though nobody had told me that.

Sharpless

And this is while you were a medical student?

Ravenholt

Yes, a junior medical student in March of 1950. I tried to explain it to my classmates and it didn’t seem to mean as much to them as it did to me. But it stayed with me, so that whenever I read about a cancerous entity, I’d try to understand in evolutionary terms. How does this fit under the evolutionary thing? And of course, when considering the effects of smoking, one can easily understand that, when one knows that tobacco contains mutational agents and also causes increased cellular turnover, so of course it will accelerate the evolutionary divergence until a cancerous strain develops. I went on to other things, but that concept always stayed with me, and I came back to it subsequently. Anyway, what else in medical school? Externship. Well, one summer—the summer of ’49, after my sophomore year, I went down to Fort Sam Houston, Texas, in a medical ROTC program. It was hot (laughs), but it was a good experience, basically.

Sharpless

Where did you do your internship?

Ravenholt

I was coming to that, because it comes at the end of medical school. We had to take an internship, and I was fortunate because, somehow, I had learned
there was such a thing as a U.S. Public Health Service Hospital Internship. A half-dozen U.S. Public Health Service Hospitals offered rotating internships. I was immediately interested, because my first child—a daughter, was born at the beginning of my senior year in medical school. Since then we were barely making ends meet. Before that, my wife had worked as a secretary to the Department of Obstetrics and Gynecology at the University of Minnesota.

Sharpless And what's her name?

Ravenholt Millie was her name. Mildred Froysland. Our financial situation diminished rather rapidly that senior year. Though, it is of interest that in those seven years of pre-med and medicine at Minnesota—starting with only $150, and working my way, plus my wife’s income during several years, we ended medical school having only borrowed $500. We were fortunate I was able to get an internship in the U.S. Public Health Service hospital in San Francisco, as a Commissioned Officer in the USPHS. And I was eager to go to San Francisco.

Sharpless Did you? Why?

Ravenholt Well, I loved the West. I always loved the West. And, I’d seen San Francisco.

Sharpless So, you packed up and moved?

Ravenholt We packed up. Then I did borrow from my brother Albert, a thousand dollars to buy a car and get started in California. We never had a car during medical school. So now we bought a car and moved to San Francisco. If I’d interned at Minneapolis General, they only paid about ten dollars a month. Many other internships only paid a tiny amount, whereas the U.S. Public Health Service offered many advantages. First, I was into the federal service;
second, I was paid about $350.00 a month.

**Sharpless**

Goodness.

**Ravenholt**

Yeah. So, I went for that internship, rotating to the various services—medicine, surgery, obstetrics, tuberculosis, neurology, and so forth. I got quite a lot of surgical experience as first assistant with the chief of surgery on pneumonectomies, gastrectomies and such, and I got to do by myself, appendectomies and hernia repairs, and such. So, I really liked surgery, and if I could have gone immediately into a surgical residency, I would have done so. But, that was not possible. I needed to put in two additional years in the Public Health Service to complete my obligatory military service, which I’d not gotten before. Interesting, when I went to Public Health, I never told them I’d been rejected before, and nobody ever suggested that there was anything wrong with my heart after that. Actually, the cardiologist at the University of Minnesota Health Service, to whom I was referred when I entered, because of my history, worked me over carefully, and said there wasn’t anything wrong with my heart. And all these years later, seems to confirm my cardiovascular health. I needed to stay in the Public Health Service two more years. I could not get a surgical residency, because that was prized and those ahead of me in the seniority line would get those. But in the latter months of my internship I wrote to the Division of Personnel in the Public Health Service in Washington, exploring whether they had any openings in the Division of Foreign Quarantine, because they had officers assigned in various places in Europe. And I’d always dreamed of going to Europe. I got a letter back from them saying, No, they were cutting back
their forces in Europe. They’d had more of people over there for awhile, because of all the visa handling (airplane passes) after World War II, but in 1952 they were cutting back. They wrote me they had sent my file to Dr. Langmuir in CDC who was recruiting for an Epidemic Intelligence Service. Soon I got a letter from Dr. Langmuir inviting me to a conference at CDC in May of 1952, with them paying the travel expenses. I was delighted to accept that and turned over my internship duties to a dozen or so fellow interns while I flew off to Atlanta, for a week’s conference. Which indeed, was determinative, because Langmuir was a very able and persuasive fellow, and after that week, I decided that the EIS of CDC made better sense than going into an OPD. And that was a momentous thing, because that got me into the whole field of epidemiology in the very best fashion.

Sharpless  Do you want to stop here for today, or do you want to go on?

Ravenholt  Yeah, we could stop here.

Sharpless  Okay, well, why don’t we start and pick it up with EIS tomorrow.

Ravenholt  Yeah, that probably—did you look in my website?

Sharpless  Yes.

*end Interview 1*
Interview 2

Sharpless

Today is the nineteenth of July. My name is Rebecca Sharpless and this is the second oral history interview with Dr. Reimert Ravenholt. The interview is taking place at his home, in Seattle, and it’s part of the Population Pioneers Project. Okay, Dr. Ravenholt, when we stopped yesterday, we were—you were just getting to the Epidemic Intelligence Service under the tutelage of Alexander Langmuir. And I guess I’d like to back up just a little bit. Now, you told me that you took the internship at the public hospital in Seattle— I’m sorry, San Francisco, for very practical reasons. What philosophical reasons did you have for going into a public health hospital, there?

Ravenholt

Well mainly, I was coming to the end of my medical school education. Of course, there was a need to select an internship. At that time, ordinarily, it was a one year, rotating internship—rotating on the various services—medicine, surgery, obstetrics, urology, and so forth. And interns were paid very little. In many places, favored internships, they were paid like ten dollars a month for a hundred-plus hours per week. (laughing) I was then married, with one child and had very little resources. So, I was of course trying to find an internship that paid at least a moderate amount. And the Public Health Service at that time paid something like $350.00 a month—a living wage. So, that was very important. Then the Public Health Service had perhaps nine Marine Hospitals, U.S. Public Health Service hospitals sited, especially in port cities—San Francisco, Seattle, Boston, Savannah, New Orleans and Staten Island, and so forth. And of all those, San Francisco appealed most to me, at that time. So, I had a double reason for selecting the U.S. Public
Health Service Hospital in San Francisco. And as mentioned, finishing medical school, I borrowed $1,000 from my brother to purchase an automobile and relocate to San Francisco. We drove out and immediately found the Public Health Service hospital was on the Presidio, right above Seaciff. So, it was a very lovely setting, with the Presidio grounds around it. A good thing was that the Public Health Service, being a federal agency does things in a thorough and deliberate fashion, with employment and so forth. It’s all done quite thoroughly. As I began the internship we found an apartment in the Richmond district, not far from the hospital, and moved there for several weeks. But the landlady had glaucoma and our daughter, Janna, tumbling various things on the floor bothered her so much that we thought it best to locate another abode. We weren’t really happy with that, but managed to find a good house we could rent in the Sunset district, just a dozen blocks from the Pacific—south of the Presidio. We moved there and it proved ideal.

Sharpless Now, was there any kind of shift in your thinking between private practice and public health?

Ravenholt No, not at that point. I was overwhelmingly concerned with clinical matters.

Sharpless Okay.

Ravenholt Doing histories and physicals and diagnosis, treatment, ward rounds, and outpatient service, and so forth. No, I was, as I’d had been in medical school, overwhelmingly concerned with clinical matters.

Sharpless Okay, now you told me yesterday about wanting to go abroad, and then Dr. Langmuir picking you up for the EIS.
Ravenholt

Let me just say a word or two more about the internship. I did quite a lot of surgery as first assistant on major operations and doing various surgeries myself. So much so, that I wanted to go into surgery, but—I guess I—we talked about that yesterday.

Sharpless

Yes, sir.

Ravenholt

Anyway, I was invited by Dr. Langmuir to come there in May, to the first Epidemic Intelligence Service conference, and was sufficiently impressed with Dr. Langmuir and the activity there that I decided in favor of going with the Centers for Disease Control—the Epidemic Intelligence Service. Even though, up until that time, I had not really focused on epidemiology nor on public health. I think by nature I was public health oriented.

Sharpless

Why do you say that?

Ravenholt

Well, it’s sort of a Danish kind of philosophy. And my parents were very much public service oriented. And so, it was something that came naturally as far as wishing to work in the public service rather than simply going out and making as much money as I might be able to. Leaving San Francisco at the end of June, we drove to Minneapolis, where I left my wife, Millie, and children, Janna and Mark, who was born in San Francisco. They stayed with her folks in Minneapolis while I proceeded to Atlanta for six weeks introductory training at the CDC. I remember it was very hot. (laughs) There was no air conditioning in the home where I stayed with a couple of other E/S officers near CDC.

Sharpless

Was CDC on Clifton Road, then?

Ravenholt

No, it was on Peachtree Street.
Oh, okay.

Yeah.

That was before Clifton Road was built, then.

Yes, that was a decade or so later that they moved out to Decatur-Emory area. CDC was in the embryonic stage, but Dr. Langmuir was always a very communicative, capable, challenging kind of personality. Great—very expert as chairman of a session, or conference or anything. And we began to learn some of the fundamentals—some statistics of quite a utilitarian nature. Learning about CDC and its activities. We visited several laboratories outside of Atlanta at Montgomery, Alabama and one at Oat Island near Savannah, Georgia. But mainly, we worked at the Peachtree Street headquarters. We had a chance to read and study the classics in epidemiology, and various epidemic outbreaks and investigations. Then came the matter of where we might be assigned

Um-hm. Let me ask you one quick question. What were your classmates like?

Well, there were just a dozen of us. And they came from varied backgrounds. The ones that I came to know best were Drs Harald Fredericksen and Charles Leftwich, with whom I roomed. Fredericksen was a Dane, though born in the Panama Canal zone; educated in Denmark and in Vienna; and he had an MPH from Harvard. He spoke fluent Danish, as I did, so we had quite a lot of fellowship. Also, somehow he had acquired a large white Jaguar sedan. (laughs) And we enjoyed driving around Atlanta in this quite noticeable automobile there in the summer of ’52. We enjoyed getting acquainted with Atlanta—Grant Park with its Cyclorama, which I enjoyed,
and Aunt Fanny’s Cabin at Smyrna—very good place. We sometimes played
golf on the Fulton County golf course outside of Buckhead. I had more
freedom then than I’d ever had in my life. (laughs) That was nice. Toward
the end of the summer, the matter of assignments became the key issue. I
had no preconceived knowledge of where I would end up after orientation
training, but for a confluence of reasons I was assigned to go with the Ohio
Department of Health in Columbus, Ohio, which proved to be a very good
assignment. The Director of Health for the State of Ohio at that time was
Dr. John Porterfield, a really able and pleasing person. And my immediate
chief was Dr. Fred Wentworth, who had been in the previous—first EIS
class. He had likewise been assigned to Ohio, and then moved up to be chief
of the Communicable Disease Division, so I was assigned with him. This was
really ideal because I had these expert people to relate to, with freedom to go
and investigate disease outbreaks. I still vividly remember arriving in Ohio, in
Columbus. The Ohio Department of Health was in a high-rise office
building by the Scioto River in downtown Columbus. I immediately felt a
great loss—no white coats, and I was shorn of my stethoscope and other
diagnostic paraphernalia. Given a desk in the corridor outside of Fred’s
office and some communicable disease reports, I began reading and learning
public health activities. I really felt a great sense of loss from being divested
of my clinical experience. This lasted just a few weeks; and then I became
involved in a classic disease investigation. What happened was that a five-
year-old girl living in Vinton County, in southeastern Ohio, developed
diphtheria, was referred to the Ohio State University Hospital in Columbus,
and died soon after admission. The death from diphtheria was reported to the state Health Department, and Fred Wentworth gave the report to me and requested I go ahead and investigate it. (airplane passes) This immediately got me out of my torpor because I had to immediately read about diphtheria, do practical things such as, checking my immunity and my wife’s immunity with Shick tests. The children had been recently immunized. And I had to obtain laboratory support throat culture materials and so forth, plus phoning the Vinton County health authorities—the local Health Department to arrange an invitation to go and investigate in that locality. After several preparatory days, I drove down to Vinton County and went to the home of the five-year-old girl who had died, met with the family and got history from them. I learned that several days before the five-year-old developed her sore throat illness, the seven-year-old sister had had a fairly severe sore throat illness. The seven-year-old sister attended the second grade in the Allensville Consolidated School in that region. Then, of course, I went to the school and met with the principal and with the teacher in the classroom the seven-year-old had attended, and took a history of what had been observed that fall. They’d had a variety of sore throat illnesses, but no really serious illness in that room. I took throat cultures from the teacher and the twenty-six children and then took the cultures back to Columbus to the Ohio State lab. A couple days later they reported that eleven of the twenty-six children had virulent diphtheria organisms in their throat. So, that immediately of course confronted us with the need to investigate the entire school. Then, I got the help of Berttina Wentworth, a very good lab
specialist. We proceeded to get the materials together and then went down to Allensville and throat cultured all the children in the school. I forget just how many other cases we found—a fair number, but not nearly as many—as dense as in that one classroom. Also, of course, we organized an immunization program and immunized the school—two rounds of immunization. And because we found a number of other diphtheria carriers we, of course, had to do secondary and tertiary cultures. So, much of the next several months I was busy doing follow-through in that school.

Sharpless

Were you actually doing the immunizations?

Ravenholt

Yes.

Sharpless

Okay, so you were back in your clinical mode, to—

Ravenholt

Oh yes, so I enjoyed that, it was very good that way. So, we handled that. And there were other diphtheria incidents, too, elsewhere in Ohio that I was involved with, but this was the main one. Dr. Wentworth had been involved in one over at Zanesville area, Muskingum County, the previous year. So, there was fair amount of diphtheria still in Appalachian Ohio. Anyway, I’d gotten busy, also with other things, in Ohio, there in the spring. But I made a final—what I thought was a final trip to Allensville Consolidated School just as a wrap-up to report and sort of put an end to that. And then, when talking with the principal, with whom I’d become somewhat familiar—he said, Oh, he wanted to bring to my attention the fact that they’d had a number of students coughing up blood. (laughs) I thought I was done with my work at Allensville, but I could hardly ignore that. My foremost thought was that perhaps there was tuberculosis, because this was a poor area. So, we
organized—again with the help of Berttina Wentworth—a study of the entire school, with tuberculin testing and also skin testing for histoplasmosis, also chest x-ray. Just proceeding as though we expected to find appreciable tuberculosis. But, from initial results, it was clear it was not tuberculosis, and it was not histoplasmosis; but thirty-seven students had pneumonia—x-ray evidence of pneumonia in their lungs. So, then we got blood specimens from these cases. Now, school was just ending in the spring. From the blood specimens we got a tip-off of causation because we found that many of these had excessive eosinophilia—a kind of white blood cell in greater proportion than it ordinarily would be, indicative of parasitic disease. By now school had let out and yet we needed to follow-up on these thirty-seven cases. For this work I got the help of a young man, who had until then been a VD investigator—Charles Adams. We proceeded to Vinton County and visited homes to get blood specimens and stool specimens. That got us immediately aware of the living conditions there. It truly was a primitive Appalachia culture, places like Corn Pone Hollow and Pumpkin Ridge, old Cumberland Mountain type topography and people. Anyway, I remember vividly one family that Charles and I visited, where an eighth-grader had, indeed, developed pneumonia and been picked up on x-ray. We went there to interview and to get stool specimens from the family. It was a very poor household. The mother was nursing her ninth infant while giving me the history, shifting the infant from one breast to the other occasionally; and the unemployed father was lying on a couch. When I mentioned the matter of worms, they became a bit agitated as the mother said, a cousin of Will, our
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sophia smith collection, smith college

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eighth grader, had died the previous year. They didn’t know what killed him, but had been told that they’d taken more than a pint of worms from his intestine. And so, it seemed that he probably had the same thing. The father spoke up, “Oh, worms,” he said. A year or more before, he’d been doing as he was doing then, lying on the couch watching television, when he felt something gagging him. He then coughed or vomited up a large worm, about a foot long. It is of interest that they had a large television set, though not much else, as was the case in many hillbilly homes. At that time I could not afford a TV set. I had not had much exposure to roundworm [Ascaris] disease before that. Anyway, I was interested in the household ecology—why they had so much trouble. It soon became evident: their water supply was an indolent spring with a concrete catch-basin located behind the house, halfway to the outhouse. And it was fairly obvious that when they sent a child for water—that child would often visit the outhouse before sloshing up a pail of water, and thus the water would become heavily contaminated with Ascaris eggs, leading to super-infestation.

Sharpless

It’s a wonder they didn’t have typhoid or cholera.

Ravenholt

The whole family was loaded with roundworm disease. We’d been getting this information and were leaving specimen containers to get stool specimens from them. And as we finished that, the woman invited us to stay for lunch. (laughing) I didn’t have appetite for that, so said we must hurry back to the lab.

Sharpless

How readily would this family then accept treatment?

Ravenholt

Oh, they accepted that. The treatment was done by the local doctor in
McArthur, who handled this—a general practitioner. So, I did not have to become involved with that much. Later, I happened to meet that doctor, and he told me he frequently de-wormed such patients. The thing I learned from the diphtheria and the roundworm investigations, and soon from some typhoid outbreaks that I investigated was the challenge of preventative medicine. These experiences really shifted my gears from reparative medicine to preventive medicine. I became immediately fascinated and challenged by how we could interrupt the development of these diseases, especially when one can apply some inexpensive, mass approaches like immunization and improved potability of water and so forth. Because, with the individual coming to the hospital or coming to the clinic, they present with this or that, but often it is pretty much guesswork what they have or why they got it and so forth. You do your best to alleviate it, but frequently it’s not possible to really understand it very fully. And individuals are very variable in the way they react to anything; whereas the population is very predictable how they will react to this or that pathogenic agent. One learns the pathologic spectrum of each disease: how many will develop it and how many will die and so forth, so one can really practice scientifically when dealing with populations. My Ohio experience certainly got me very interested in epidemiology and public health.

**Sharpless**

Let me turn the tape.

**Side 1, tape 1 ends; side 2 begins.**

**Ravenholt**

What else happened in Ohio in 1953? It happened at the beginning of ’53—probably January—that the *Saturday Evening Post* decided to do an article on...
the Epidemic Intelligence Service of CDC—“Disease Detectives.” And they
sent two very good writers, Edward and Ruth Brecher, both very capable
writers—to several locations to gather information for that article. They
came to Columbus, and Fred and I then filled them in on what we’d been
doing in Ohio. And about a month after they departed, the Post sent out a
photographer from Philadelphia to get pictures to go with this article. When
he arrived in Ohio, Fred Wentworth should have helped him get the desired
pictures. But he said he was tied up in meetings, and so I should handle it. I
was in bed with mumps, six days after onset, but got up and accompanied
the photographer to Muskingum County, where Fred had investigated
diphtheria the prior year. So, I did that, got out of bed and went with the
photographer over to Muskingum. But when we got there the photographer
clearly did not know what pictures he should get. Hence I put my
imagination to work, and devised several tableaus which might be useful for
that article. With the help of the local health officer, Dr. Maggie O’Neal, and
the principal—we set up a classroom of children and arranged that each
child held a culture tube. Dr. O’Neal and I got busy taking throat cultures,
while the photographer snapped pictures. He got good pictures of this. I also
organized other pictures, still just trying to jazz it up for all that it was worth.
Right there in the school, I gathered half a dozen boys together in a tableaux
as though they were—as if they’d had infectious hepatitis. Dr. Wentworth
had been involved in an infectious hepatitis outbreak, where gamma globulin
or immune globulin was used, so I just simulated that I was giving a gamma
globulin shot to one of these boys—pubescent-age boys. We went back to
Columbus, and I pretty much forgot about it all until May when I was in Atlanta for the Second Annual Epidemic Intelligence Service conference. In the course of which, Dr. Langmuir, and the director of CDC at that time, Dr Ted Bauer, came in with copies of *The Saturday Evening Post* that had just appeared on the newsstands. They were happy to bring this to the attention of all the EIS. And I was a bit overwhelmed when I saw it. I had been given a prominent role and they’d used two of the pictures that I had arranged. They had rewritten the story around the pictures, somewhat, so that somehow some of the work which should have been attributed to Dr. Wentworth was attributed to me. Anyway, I felt rather embarrassed about it. But still, Dr. Langmuir, even though he didn’t get his picture in the story, was generous in his comments. The next week, I was back up in Wisconsin for my sister’s wedding, and of course, *The Saturday Evening Post* was on the newsstands, and I was a considerable point of discussion. And one good thing that happened from it was that my brother, Otto, who had been in the Army in Japan. He was back at the University of Minnesota, and he’d gone into economics for a while, and journalism for a while. He was a little uncertain about his major. Somehow, when he saw the fun that I was having in the epidemiology and public health, he raised the question to me. Whether it would make any sense for him to go into medicine. I had not urged him before that, because he had a wife and two children—but he had been getting very good marks in whatever he was taking. I said, “Yes, you stupid idiot, of course that’s what you should do.” I gave him the hard sell, then. And he shifted majors, and went on to finish pre-med and get his medical
degree. Indeed, he was twice president of his class in medical school, and he went on into a career in public health, too, and served as health officer Las Vegas, Clark County for thirty-five years, and also coroner for twenty-five years. So, where are we now? In the summer of ’53, Dr. Langmuir and CDC authorities had decided that we should participate, actively, in the “National Program for the Evaluation of Gamma Globulin for the Prevention of Poliomyelitis.” There was then no active immunizing agent for polio, but as a stopgap they were trying to use immune globulin as, perhaps, a preventive for polio. The regimen in 1953 was that when someone developed polio, they gave immune globulin to household and neighbor contacts.

Sharpless

How well was it working?

Ravenholt

Well, that was what this program was to—supposed to discover.

Sharpless

So, it was an evaluation.

Ravenholt

Yes. We gathered at Pittsburgh—the EIS—and we were given intensive muscle-testing training there, that spring. My main duty in the summer of ’53 was, whenever a multiple case polio household occurred in the state of Ohio, I went immediately and get the history and some specimens and did a thorough muscle-testing of the afflicted cases. And sixty days later I went back, repeated the muscle-testing so we could get an accurate measure of the severity of the paralysis. Sometime in the latter part of the summer I got a letter from a Dr. Sanford Lehman, director of Public Health for Seattle and King County, Washington, inquiring whether I might be willing come there. He had also written to Dr. Langmuir, seeking to recruit me I think it likely that he had read the *Saturday Evening Post* article. (laughing) (airplane in
background) I was immediately interested, because I’d looked forward to getting back west, and my oldest brother, Albert, maintained a home in the Seattle area, even though he was overseas quite a lot of the time. Because of its mountains and waters I had a natural inclination for the northwest. I was enjoying my work in Ohio, but I knew I didn’t want to remain in Ohio, because of the lack of mountains and lakes. So, I talked to my chiefs there, and to Langmuir, and Langmuir and Porterfield agreed that if they could assign another EIS officer to succeed me in Ohio, then they would approve my move to Seattle. They found an EIS officer, Martin Keller, who was susceptible to assignment there. It was arranged for him to begin in October and for me to leave in November. Growing up in New York City, Martin had never learned to drive an automobile.

**Sharpless**  
This is Dr. Keller?

**Ravenholt**  
Yes, he had an M.D. and a Ph.D., but he’d not learned to drive an automobile. And it was essential that EIS officers be able to drive automobiles. Dr. Keller had taken not just one, but two driving courses while in Atlanta, those six weeks. But, he still had no license. So, they said that I should help him with his driving. I took him and his wife, Judy, along on a trip to Cleveland on polio follow-up. And on the way back I let him drive a while. But after nearly having a head-on collision I took back the steering wheel. (laughing) I really wasn’t able to do much more with him before I left. And it was just as well, because not long after I got to Seattle I heard he’d had quite a serious collision. (laughing) But, he did learn to drive, the hard way, somehow, and went on to have a good career in epidemiology and
public health in Ohio. In November ’53, we drove southwest to Los Angeles, where my father was and then up the west coast to Seattle. Upon arrival in Seattle, we checked in at a motel on Aurora Avenue, and went to visit some colleagues we knew at the Public Health Service Hospital on Beacon Hill, here. And at midnight, in the rain, driving back to the motel, we paused before making a left turn and, Whammo. Someone plowed into the rear of my car, at pretty good speed, so that—fortunately our one child was lying down in front and one in back. But, it was sudden, traumatic sort of thing. My wife and I both thrown against the bench front seat—it tore the seat loose.

**Sharpless**

My goodness.

**Ravenholt**

And I didn’t think so much about it then. Everything was turmoil, getting the police and so on. We got all that done, and it was an eighteen-year-old girl who had hit us, with several companions. It was raining, and the old cars didn’t have such huge rear tail lights, so it can happen pretty easily. And I—pausing as I did before we—I can just remember that I could’ve made the left turn and gotten over, but as—to be extra careful because it was raining, I decided to wait until that other car passed. And it was while I was sitting there waiting that I got it from behind. The thing was, the next morning, when I woke up, my neck was frozen. I couldn’t turn it, so I really had taken a severe whiplash. I still have evidence of it here, you can feel the lump on my neck.

**Sharpless**

Oh, yeah. Yeah.

**Ravenholt**

I immediately started work at the Seattle-King County Health Department,
but indeed, my neck did bother me, severely for a week or two, and a fair amount for some months, then gradually receded. I could have pursued getting some kind of compensation for it. But shortly before leaving Columbus, during a sleet storm, in my state car, a V-8, on Broad Street, and going down hill a little bit, it was just glare ice, I tried to stop about a hundred feet from the car in front, but it just glided ahead, and I plowed it into the bumper of the car ahead of me. So, I felt a little somewhat sympathetic to that, so I did not sue, but just got $400.00 to repair the damage to the back of my car.

Sharpless But you’re starting your new job with a painful neck.

Ravenholt My office was on the fifteenth floor of the Public Safety Building. I was fortunate there. Dr. Sandy Lehman was an extraordinarily affable, well directed, active public health officer of the old school.

Sharpless When you say “of the old school,” what—

Ravenholt Well, he was one of those who—during the thirties, under the Roosevelt administration, he had a master’s degree and gotten his initial public health training, I think, through some federal program, at that time. And there was a noticeable number of really dedicated public health leaders. And he was certainly this. His father had been a medical missionary in Africa and he was born in the Cameroon, and so he had a missionary public health fervor. But he was especially genial, and he was politically very competent. He, himself did not particularly enjoy public speaking and public writing. He mainly maintained good relations with all the city councilmen and the mayor. And he did all the things that needed to be done. But, as I began to investigate
and became epidemiologist for the Seattle-King County Health Department, I would investigate disease outbreaks and then increasingly I’d report it to the papers, and after a while, on television, and radio. I became so active that way, in investigations and reporting that quite a few in the community thought I was the health officer, whereas I was director of the division of epidemiology and communicable disease control. But that didn’t bother Sandy Lehman. He rather liked that, because he preferred behind the scenes work. So, he always was urging me and allowing me to do anything that really excited me. So, that was a marvelous seven years that I spent there with him.

Sharpless

What were some of the major issues in King County, at that point?

Ravenholt

At first, I just had an immunization clinic immediately adjacent to my office, and shared a secretary with the director of maternal/child health. I also had the assistance of a nurse who was mainly clinically occupied. So, that’s how I started. And again, it takes a while before things catch fire. But I began investigating interesting disease problems. The first thing that really came to my attention (motorboat passes) was an outbreak of psittacosis—parrot fever, especially among employees of the five-and-dimes where they were selling psittacine birds—parakeets. I’d had one experience in Ohio with a case of psittacosis in Cleveland, a railway messenger—a person who tended livestock on trains from St. Louis to Cleveland to New York, and had developed psittacosis. So, I was somewhat aware of the relationship of psittacosis with the movement of psittacine birds. I had very limited resources, just had the half a secretary and the nurse fully occupied with the clinic. Now, we knew that there was psittacosis in some of these five-and-
dime stores, or pet shops. But if I immediately strictly enforced the laws, and quarantined the stores, they would soon be out of business. So I hesitated to do that, but yet, had to do something. And what I devised, just to handle that situation, was I created a retail sales slip with information on psittacosis on the back, and our telephone number and advising the buyers of psittacine birds, if they had any illness to phone us. Thus I got their cooperation and they used the specially designed sales slip. We printed up the special sales slip books, so customers got special information, and we got their telephone numbers. Then several weeks after the sale, my secretary or myself telephoned the buyer to see if there had been any illness. Indeed, we found cases of psittacosis that had occurred. Not a huge number, but appreciable numbers. And it was educative, as I became additionally aware of psittacosis ecology. The sales were mainly at Christmas and at Easter, and sometime before that, the shops would contact someone connected with Southern California, and order certain numbers of parakeets. And many of these were “wetback parakeets,” raised in Mexico and brought over the border. The entrepreneur in Southern California would ship perhaps fifty birds in one container, by air, to Seattle and they would be distributed to the various retail outlets. And of course, if there was one infected bird among those fifty, the rest of them would get infected on route. But because of a prolonged incubation period, the infected bird would often become ill after sold to individuals, and be most infectious to associated humans. Whereas, locally produced birds would be less exposed to infection. It was the mass importation that enabled this epidemic propagation of the psittacosis virus.
And so, Dr. Wally Giedt, epidemiologist for the state health department, and I, proceeded, with the help of the state board of health to change the regulations so that there could not be mass importation of birds into Washington State—that any entrepreneur would be limited to bringing twelve birds per year. And indeed, that seemed to dampen the whole occurrence of psittacosis during the rest of my seven years as epidemiologist in Seattle. Again I encountered diphtheria here. It was different in its distribution than Ohio. Here, diphtheria at that time was a sporadic occurrence in the Skid Road area of Seattle. After several years I realized the ultimate source of the diphtheria that we were having in Seattle were the regional Indian reservations—because of low levels of immunization on the Indian reservation. Indians came to Seattle and engaged in drinking, and quite a lot of prostitution, too. And they infected others on Skid Road who frequented the bars downtown. I recall occasionally finding chronic alcoholics with severe diphtheria and immediately driving them to King County Hospital.

Sharpless

Okay, I'm going to change the tape while you do that.

Ravenholt

Okay, and you'll be interested to see this one page from my website, www.ravenholt.com.

_Tape 1 ends; tape 2, side 1, begins._

Sharpless

This is the second tape with Dr. Reimert Ravenholt, on July 19th. Okay.

Ravenholt

Yeah, Becca, you see, here is an example—

Sharpless

Okay we’re looking at the Historical Disease Occurrence in Seattle, and this is on your website.
Ravenholt Eighteen ninety to 1960. As I started working with this, I was really frustrated by the lack of any record or memory of what had gone before. And I’m sure this is true for just about all the health departments and other agencies, too, of government—that people come in and they work awhile and go on, but most don’t make a systematic record of what’s been going on.

Sharpless You can see when the epidemics are. There are huge spikes in those.

Ravenholt I was struggling with that. And the tools for epidemiology here, at mid-century, in ’54, were really very primitive. We had a health educator in the health department who would occasionally made some charts for Dr. Lehman to show this or that. But it was laboriously done in those days. Initially, I looked intuitively to her, for help, but soon discovered I couldn’t really get the help I needed. Finally, in desperation, I went to an engineering store to get the papers and the pens needed, so that I could begin to draw charts myself. This had not been really handled at CDC and they’d not taught us how to do charting—

Sharpless How to graph things? Huh-uh.

Ravenholt Yeah, so I really had to pick it up as best I could. I did get, with Rapidograph pens and proper papers and tapes, and so forth.

Sharpless It’s not just plain graph paper?

Ravenholt Well, it’s the overlay papers, anyway.

Sharpless Not onion skin?

Ravenholt I had a growing need for this as I gathered more historical data. For television and newspapers and for formal publication I needed to be able to chart my data. And here you see charts that I made along the way, for
smallpox, the cases and the deaths from smallpox from 1890 to 1960, and likewise typhoid fever and diphtheria and poliomyelitis, and you can see how they contrast.

Sharpless    You can really see those spikes.
Ravenholt    Smallpox was a problem, especially during the earliest days and to 1940, and then the last outbreak was 1946, when it was introduced in Seattle. But we’ve had no smallpox since then. Typhoid fever, a very big problem in the early years when the water supplies were very poor.

Sharpless    The 1890s.
Ravenholt    The 1890s. (speaking at same time)
Ravenholt    —when the main population was in what is now downtown Seattle. At that time they were taking the water from Lake Union at the same time sewage from 10,000 people was going in there (laughing) with predictable consequences. Then they began to bring in the mountain water—the Cedar River water. A beauty of epidemiology is that you start with a problem, but then as you start learning about it’s history, it leads you into the whole community history, what was done and how it was done. In 1901, the first water from Cedar River was introduced into Seattle, but then Seattle grew very rapidly. In 1900 there were just 111,000 people in Seattle-King County. By 1910 there were 287,000, so it more than doubled in that decade. So again, they ran short of water. So, they had to bring in more water mains, but sometimes they used water from Lake Washington and again, it caused typhoid outbreaks. So, it took a long time, and a lot of money and a lot of community action to improve the water system.
Looks like there was a huge spike in 1907.

I wrote up the “History, Epidemiology, and Control of Typhoid Fever in Seattle” from the earliest days. And, it provides a fairly complete record of such occurrence. And, likewise, diphtheria, of course. The prevention of typhoid required development of adequate, potable water systems. Though there was some transmission by milk, and so, pasteurization of milk was also important. With diphtheria, the prevention was, of course, mainly immunization—especially with diphtheria toxoid—that’s the killed poison of diphtheria, used then by injection, causing immunity. And that came in, mainly, during the 1930s and after. The first year in Seattle I was an Epidemic Intelligence Service officer assigned to Seattle, but rather immediately took on the responsibilities of the communicable disease control division. And so, at the end of that first year—that next July—I inactivated my public health service commission and took over formally as Director of Epidemiology and Communicable Disease Control for the Seattle-King County Health Department. Which role, I then continued in for seven years. And one of my important duties was to direct the immunization activities of the department, and community, especially the annual school immunization program. Which really increased the immunization level very substantially. We had an ongoing problem that there were quite a few Christian Scientists in Seattle who resisted immunization, but I learned that we could overcome most such resistance to immunization by making it readily available in the schools. The Seattle public schools had a medical department with public health nurses that were employed by the school. And a very able woman
physician director, Dr. Vivian Harlin. When it came to the immunization program, they worked very cooperatively with us in the Health Department to ascertain the immuno status of all the children and sending home parent request slips. Ordinarily parents would have had to make an appointment with a private physician, on a certain day, take the child there, perhaps out of school to get an immunization and then back again, and so forth, costing considerable effort and money. Whereas, with the school program, it really made it so easy that all the mother, or the father, too, had to do was examine this parent request slip and identify the immunizations needed and sign it. They didn’t have to make an appointment, they didn’t have to take the child. It flowed. And it was expense-free for them. (motorboat passes) So, what we found was that in many of these marriages, one of the partners might be Christian Science, but the other was not. (laughing) And so, of course, if all they had to do was sign it, and it was done at school, a large proportion of these children would become immunized in school. We did an extensive study in 1960, and found we had 98 percent of the children immunized, at least for some diseases, and 93 percent for all diseases. So, we had a very high level of immunization, mainly through this matter of making it so completely available to them. (motorboat passes) Sometimes, though we employed a number of private physicians to handle much of it. In a forenoon clinic, I might do a thousand immunization—smallpox, DPT and then later, polio, too. And I enjoyed the immediate contact with nurses and students and sometimes parents; and the satisfaction of accomplishing much quickly. Sometimes when attending public health conferences, I heard other workers
in the public health offices complain that their doctors didn’t report the
diseases to them. But I soon discovered that the Seattle doctors were
delighted to participate in active, meaningful disease investigations. Relevant
newspaper publicity soon stimulates reporting from the private physicians
and from the public. I usually had knowledge of more things that needed
investigation than I was able to do. (laughing) Because there was plenty of it
going on.

**Sharpless**

So, communication became important.

**Ravenholt**

Yeah, the matter of communicating adequately with the community just
became sort of natural. It changed, of course, according to season and year.
Diphtheria—a number of cases early on, when I came—not very many—no
big epidemic, but interesting cases. A few typhoid cases—mainly from
carriers. But poliomyelitis was a huge problem at that time. This was the
cause célèbre for the nation in the early to midfifties. I mentioned that I’d
engaged in a gamma globulin program in Ohio in ’53. Nineteen fifty-four
was the year that the Salk vaccine was tested in a dozen or so places in the
U.S. We didn’t do it in Seattle. I had just arrived and I was not really revved
up yet to take on that responsibility in ’54. Then the analysis of the collected
data was done that winter by a Dr. Tommy Francis at the University of
Michigan. Meanwhile, the National Foundation for Infantile Paralysis—
NFIP—started by President Roosevelt and his law partner, Basil O’Connor,
in New York, had supported Jonas Salk in his development of the Salk
vaccine and supported the evaluative analytic studies. They decided to go
ahead and activate four or five pharmaceutical companies to produce vaccine
the winter of ’54–’55 so that if the vaccine proved useful, there would be
some vaccine for use in the spring of ’55. And that all came to a head on the
12<sup>th</sup> of April, 1955, when there was a nationwide reportage by Dr. Francis,
Dr. Salk, and others from Michigan on the results of the field trials. The
results were broadcast to physicians in selected theaters, as in Seattle. Thus
we learned that the field trials had demonstrated that the Salk vaccine was
safe and effective in prevention of polio. There was only going to be enough
vaccine for first and second-grade children. We had already set up for
Seattle-King County a first and second-grade immunization program with
160 private physicians volunteering to give the shots. As soon as I left the
theater, went back to my office and I telephoned NFIP in New York to see
when would we get our vaccine so we could plan additionally and follow
through on it. The NFIP said we would be getting our vaccine from Cutter
Laboratories in Berkeley. I knew Cutter Laboratories because we had been
buying smallpox vaccine and DPT vaccine for the school program from
them. And I knew the key person down there, Bill O’Neill, so I turned
around and phoned, asking when would we get our vaccine? He said he’d get
it to us as soon as possible; adding they’d had trouble with one lot they had
thrown away, but he’d get it to me as soon as possible. And a few days later
in April of ’55, I got a telegram from Cutter Laboratories saying that our
vaccine would be in on Western Airlines the next day. But when I got to the
office the following day, I had another telegram saying that because they did
not have enough vaccine for the entire state of Washington, they were
sending the supply intended for Seattle to Idaho. Well, right about that—
during that time, a couple of detail men for Cutter Laboratories invited Dr. John Wilkey, director of maternal/child health and myself to lunch one day, to discuss vaccine supplies. And during the course of that luncheon, one of them mentioned, apologizing to me, that vaccine supplies were so short that they weren’t able to provide Dr. Wilkey and myself any for our personal use. To which, I nonchalantly replied, Well, not to worry about that because the Parke Davis man had said he would give me some. (laughing) I went back to my office and about half an hour later a breathless messenger arrived (Sharpless laughs) with half a dozen vials of Cutter vaccine for Dr. Wilkey and myself. They didn’t want Parke Davis to get ahead of them.

Proctor
Did Parke Davis really offer?

Ravenholt
Oh, yes

Proctor
Oh, okay.

Ravenholt
Yeah. Well, I had an immunization clinic immediately adjacent to my office—between Dr. Wilkey and myself, with a refrigerator, where we put the vaccine. At the end of the afternoon, Dr. Wilkey came to get a vial to take home to immunize his child. And I told him, You go ahead and I’ll wait a few weeks and then I’ll immunize my two children. I said that laughingly to him, but then I got to thinking if I didn’t have sufficient confidence in this vaccine to immunize my two children, I shouldn’t be directing a program to immunize everybody else’s children. So, thereupon, I took a vial home and immunized my two children, Janna and Mark, with this vaccine. Just three days later, the news came over the wire: Cutter Vaccine Causing Paralytic Polio.
Sharpless: Oh, no.

Ravenholt: I immediately phoned California and also phoned Dr. Langmuir to get the latest information on what was known, and importantly, what was the lot number of the offending vaccine? I then went to the refrigerator, and sure enough, it was the same damn lot number used to immunize my two children three days before. That night and for several days they both ran a fever, but fortunately didn’t develop paralysis. But that was a hairy spring.

And it was on again, off again, as far as going ahead with the school program. After a while, we had it all setup to go again, and then *Time* magazine carried a big article. And the state health department chickened out and said, Stop. Then after a while, we managed to get “go” signals coordinated and we did go ahead and immunize 24,000 first and second-grade children. But it was a huge problem. Subsequently we had large polio immunization programs during some years, to get the whole community immunized. About the same time, in June of ’55, another huge problem emerged—staphylococcal disease. Dr. Bill Kirby, professor of infectious diseases at the University of Washington called me to say that there was something going on over at Fort Lawton hospital, that he thought I should investigate. He was serving as a consultant there. And what was going on, was that they’d had outbreaks of breast abscesses and one woman, who had been delivered there had developed a breast abscess a couple weeks after delivery then septicemia, of which she had died. I proceeded to Fort Lawton Hospital maternity service, directed by a Major Wolf. And I got what information I could, but couldn’t really get a full view of what was going on.
I then took a simple action. I said, “Just give me a list of all the women who’ve delivered here during the last three months, with their age and address and telephone number.” Then I got some help from a colleague, Dr. Jerry LaVeck, who had been in the EIS, but was then taking a residency in pediatrics at the University of Washington. And we sat down and in a couple of nights telephoned all these women to get information on anything that might have happened to them and their infants in the hospital or subsequently. And within two nights, the whole epidemiology of hospital-acquired staphylococcal disease fell clear: this was primarily a disease of infants and only secondarily of mothers. Staphylococcal infection causes pustules and furuncles and boils and sometimes pneumonia and other serious illness. I soon extended that investigation to five civilian hospitals. Not just Fort Lawton, but to Swedish, Virginia Mason, Doctor’s, Providence, and Group Health hospitals. And soon was able to demonstrate that this was overwhelmingly a hospital-acquired infection, with women and their infants, who went to certain hospitals having high attack rates, while those entering other hospitals had little, if any, trouble. So, clearly it was a hospital-acquired thing, even though most of the infants did not become ill until after they’d gotten home, because of the incubation period involved. The incubation period for infants was usually most of a week and for mothers—many nursing mothers developed mastitis and breast abscess, usually about two weeks after giving birth.

**Sharpless** They were catching it from their infants.

**Ravenholt** Yes. I got deeply into this, and it became an important part of my work
during the next six years—investigating staphylococcal disease and becoming an active participant in many local, national, and, ultimately, international conferences. We organized many hospital infection control committees. We had a good laboratory—public health laboratory at this health department. A very intelligent and dedicated older woman—Marie Mulhern—was the director of the laboratory and she was very eager to assist epidemiological investigations to make the whole laboratory exercise more meaningful than it otherwise would be. So, she and I got along very well. The Public Health Laboratory was very important in supporting my epidemiological investigations of staphylococcal disease, especially in University and Harbor View hospitals. I became increasingly busy writing up and publishing the results of my investigations; a laborious task, with my secretary having to retype manuscripts a half-dozen times. Initially, I published in the *American Journal of Public Health* and the *New England Journal of Medicine*. Along the way, I became aware of staphylococcal disease in poultry-pluckers. (laughing)

*Sharpless*  Hmm.

*Ravenholt*  So, I had to investigate that. And indeed, we had a poultry-processing company or two in Seattle, where they processed chickens—killed, plucked, and eviscerated chickens. After which, they ran them through chlorine baths. But then, what had happened right along there, was that with the introduction of broad-spectrum antibiotics, the processors began using antibiotic baths instead of chlorine. Tetracyclines, as we’d call them—broad-spectrum antibiotics. And, as these came upon the medical scene, the medical profession sort of became lax in their attention to asepsis and
antisepsis and they just ladled on more antibiotics. The trouble with the
tetracyclines was that the staphylococci soon developed resistant strains.
Anyway, this poultry-plucking plant decided to switch from chlorine baths to
aureomycin baths, because they thought it would extend the shelf life of the
poultry. Well, within a couple of weeks of doing that, a large proportion of
the poultry-pluckers developed boils and abscesses. And that spurred my
interest in ascertaining just how extensive was the problem of staphylococcal
infection in the meatpacking plants.

_Tape 2, side 1, ends; side 2 begins._

**Sharpless**

Just a second. Let’s back up and make sure—okay. So, that started your—

**Ravenholt**

So, I did—

**Sharpless**

—your interest in meatpacking.

**Ravenholt**

I became interested in how extensive was the staphylococcal infection among
meat animals and meat-workers. So, I recruited a medical student who was
also a graduate veterinarian, Dr. Robert Eelkema, with me that summer. And
we set up a special study with him going into the abattoirs, or the various
meatpacking places and getting histories and seeing everything he could, and
also getting laboratory specimens. And subsequently, because staphylococcal
infections are a noticeable problem among meat-animals, we published on
this in _Public Health Reports_. We had problems with food poisoning every now
and then, that I investigated. Some restaurants kept meat at certain
temperatures with infrared lights, so that it was just right for eating. But
often those infrared lights would keep it at an incubatory temperature rather
than a killing temperature for the staphylococci. So, we had multiple
outbreaks of staphylococcal food poisoning from restaurants that were using infrared lights to hold their meats. So, (laughing) you’re getting into all kinds of things.

Sharpless

Now, when you were with King County, how much did population occur to you? How much did you think about it?

Ravenholt

Well, I was an epidemiologist, and I’ve always been concerned with population. When investigating diseases, or in any public health program, you’re talking about people. It’s such a natural part of epidemiology, and public health, but until 1965 I had not focused particularly on excess fertility as a cause of poverty. This was now the ‘50s, when there was a rising tide of concern for excess fertility and population explosion.

Sharpless

Right. How much were you making the connections between the woman in Ohio with nine children and the problems in their homes?

Ravenholt

Well, I was, of course, aware that these large families tended to be very poor, starting with our own, because being the middle of nine children during the Depression, I was well aware that poverty assailed us. Then, as I started investigating diseases epidemiologically, of course, there was this large relation between all kinds of problems and unlimited reproduction. But at that point, I wasn’t thinking particularly about a birth control program. It wasn’t in my sphere of activity, at that time.

Sharpless

Why did you leave King County?

Ravenholt

It was really quite ideal. I lived here, in Laurelhurst, about half a mile from here, and the children were really in an ideal situation. We have a beach club down here, that they loved, and I enjoyed my work, my boss, and everything.
Dr. Lehman encouraged me, if I saw a public health problem to go ahead and get involved—not just infectious diseases, but also other things. And, this I did. And as far as help, I discovered I could get one or more public health nurses assigned to me for specific problems—at least for some periods of time. And also, along the way there, I was able to employ some medical students, for certain programs. One program was, in ’58 and ’59, we began to have increased problems with sicknesses relating to Seattle’s waters—bathing. It started in ’58 with an outbreak of bacillary dysentery at the Lake Sammamish State Park beach. I was in the Midwest on vacation when the first outbreak occurred and I had to hurry on back for that. There was such intense community interest in problems relating to the quality of Lake Washington waters, including the mayor’s office, that I could get some special funds to research related illnesses—able to employ a number of medical students and nurses to help with investigations. I set it up more formally in ’59. I got a sum of $30,000 from the city council to put eleven beaches under extensive surveillance with respect to illnesses. This was because there was a growing unrest—Lake Washington, and other waters were visibly increasingly polluted. The population was growing, especially around these bodies of water, and without a formal sewerage system, they were relying upon septic tanks around the lakes. And all the septic tank does is slow down the migration (laughing) of the filth into the water. It doesn’t divert it permanently; it just slows it down. So, the waters were becoming noticeably more and more murky, and also odorous. And as various activists became more and more concerned a very concerted effort was mounted to
pass a bond issue so with which to install comprehensive sewerage for Lake Washington, particularly. They attempted to pass this bond issue in ’58, and it failed. So, there was a need to somehow get forward with this in 1959. This fueled my getting the 30,000 for swimming-related illness research. We reported our planned study to the community, with progress reports during the summer. And at the end of the summer I reported our findings to the mayor and city council. Actually, the findings were not too striking. Just a moderate difference among those swimming, and associated with swimming as compared with the controls, which were neighbors. When I finished reporting the study results to the mayor and council, a reporter for the *Seattle-Post Intelligencer*, whom I knew, came and wanted a report. On this occasion, I diverted him as much as I could, giving him a flu shot, and just a cursory report of findings. That was on a Friday, and the election on the bond issue was the following Tuesday, and I did not wish to sap public concern for needed improvement of water quality. I managed to put him off without giving him any information that would lessen public concern for improved water quality, and that Tuesday a $115,000,000 bond issue was passed, resulting within a few years in much improved water in the lake below. Now a sewer line rims the entire lake, carrying sewage to the treatment plant on Puget Sound, where the effluent is discharged after treatment.

**Sharpless**  
So, they put a water main all the—

**Ravenholt**  
It was a necessary prospect, a public health action, and epidemiologically we participated to get the desired result.

**Sharpless**  
Right.
Ravenholt: After finishing that study in 1959, I still had a few thousand dollars left, and employed a couple of medical students, Dr. Bill Foege, and his roommate, Bill Randolph, to help me with a project I'd had in mind.

Sharpless: This would be Bill Foege, who became director of CDC?

Ravenholt: Right.

Sharpless: Yeah.

Ravenholt: He was then a medical student. And, I enlisted their help, sitting down nights and weekends in the county-city building and going through the old death records. I was interested in several diseases, particularly, but soon realized we needed to include all death records, starting with the first death records on record, in 1881. Just looking at each record and tabulating, according to age, sex, cause, and time. Just going through systematically that way. What we at first thought would be an arduous, onerous project—we really became quite fascinated with. Because, looking at all the old death records, systematically, one gets a remarkable insight into what was happening in the community. Deaths from typhoid rapidly falling as water supplies improved, tying in with the creation of the water supplies. Diphtheria, of course, with immunization, but also, many other things, like the whole changing scene—the ecology. So, when the railroads were built in during the 1890s it brought immediate changes—accidents, of course, but also even changes in suicide. Some of the railroad workers committed suicide by tying dynamite sticks to the head. That method makes good sense because it was all or none. If it worked, you were gone suddenly. (laughing) And many other ecological health changes.

At that time they were using coal gas, heating gas made from coal, which has
a lot of carbon monoxide in it. So, that was much used for committing
suicide, and caused many accidental deaths from carbon monoxide. Which
ceased to be a problem when they switched to natural gas. Just after the turn
of the century, during the Alaskan gold rush, they had no formal registration
system up in Alaska, so deaths occurring there were registered down here.
Also fascinating to peruse the death records documenting major trauma,
train accidents, and snow avalanches. Bill Foege and I reckoned that
experience of going systematically through all the old death records from
1881 to 1960, as one of the most educational experiences we’ve had. It really
gave us a firmer grasp on how many of these problems have evolved and a
better understanding of multiple determinants of death.

*Sharpless*  
Um-hm.

*Ravenholt*  
Another research project during the mid-1950s was diagnostic dose radiation
hazards. I read extensively on this and I became aware that the use of x-
ray—the diagnostic use of x-ray was a real hazard in the community. During
the’40s and ’50s leading pediatricians were recommending fluoroscopy be
used every six months in pediatric well-child care. They were fluoroscopying
the whole child, just to check that everything was all right.

*Sharpless*  
Just because they could, sort of. (laughing)

*Ravenholt*  
Yeah, and without any adequate concern for the radiation exposure to the
patients. Likewise, dentists were using dental x-ray with great abandon, as I
learned from personal experience. In 1955/’56, I was at the University of
California at Berkeley studying for my Master of Public Health degree. And
while there, my son, Mark, who was then four, developed an obvious cavity
of a first molar. I took him to a dentist in Berkeley, and the dentist insisted that before he could do anything for the cavity he had to do a full-mouth dental survey. That’s fourteen films, and in reading, I discovered that it exposed the mouth and adjacent areas from sixty to 300 roentgens of radiation. With total body gamma radiation, the MLD 50—Minimal Lethal Dose for 50 percent of recipients is only 450 roentgens. Dentists were recommending full mouth dental surveys every six months, beginning with preschool children. I believe that such inane use of x-ray by dentists and physicians during the past half-century must have contributed to today’s harvest of many cancers of the head and neck, and to parkinsonism and other dementias. Again, Dr. Lehman encouraged me in this, and so I educated myself and I began to speak out to pediatricians, and to the Washington State Dental Association. When I understand something, and believe it, it doesn’t bother me very much that a lot of other people differ. So, I was speaking out quite effectively on this, to the extent that the Washington State Dental Association sent a dozen of their members down to talk to Dr. Lehman seeking to muzzle me. Well, that is on my website, too, “Diagnostic-Dose Radiation Hazards.” I had sent it in for publication to Public Health Reports, but Dr. John Knudson, a dentist and Assistant Surgeon General, he turned it down, because, of course the implications for lesser dental income were quite strong, if effectively conveyed to the public.

**Sharpless**  
But of course, that continues to be an issue with mammography.

**Ravenholt**  
Oh, it is still with dentistry. They’re still doing far more dental x-ray than is needed. An occasional x-ray for a specific problem, okay, but it certainly
should not be a routine. The technology has improved somewhat, but there is still much unfortunate x-ray exposure. I am confident that promiscuous x-ray exposure decades ago is contributing to many mortal diseases now occurring. Speaking of Dr. Bill Foege. We did the mortality studies during the winter of ’59-’60. In the summer of ’60, he still wanted to work with me, and that summer we did an extensive study of the epidemiology and treatment of lung cancer, comparing survival of lung cancer patients in the Seattle-King County from 1930-35, before there was any effective treatment surgery and x-ray, with lung cancer patients from 1950-55 when they were treating with pneumonectomies and x-ray. We found that the average survival after onset of symptoms was ten months for lung cancer patients diagnosed in 1930-35; and for ’50-’55, we found it was eleven months. (laughing) For lung cancer the early detection and treatment is not really worth much at all. The five-year survival rate is only about 5 percent. So of course, the emphasis has to be upon prevention of smoking.

**Tape 2 ends; tape 3, side 1, begins.**

**Sharpless**

Okay, well, we’ve been at almost two hours, now. You want to take a break?

**Ravenholt**

Yes.

**Tape 2 ends; tape 3, side 1, begins.**

**Sharpless**

Alright, this is the third tape of the second interview with Dr. Reimert Ravenholt, on July 19. Okay, we were going to talk about leaving King County.

**Ravenholt**

Yes. It happened this way. I’d come to Seattle in November of 1953, assigned as an Epidemic Intelligence Service officer with the Seattle-King County Health Department, and staying on after USPHS as director of
epidemiology and communicable disease control. I was really in a wonderful situation there, working with people I enjoyed and with challenging problems and living well, even though fairly frugally most of the time. But, I had grown up bicultural in West Denmark, Wisconsin, and so I’d always dreamed of being able to go to Europe, especially to the Scandinavian countries. And then it happened that in early September, 1960, a doctor Andrew Sackett—

**Sharpless**

Okay.

**Ravenholt**

—whom I’d known when I first came to Seattle. He was at the U.S. Public Health Service Hospital in Seattle when we arrived here in 1953; and my wife, Millie and I had become friends with Andy Sackett and his wife, Betty. In 1960, he was chief of the Foreign Quarantine Division of the U.S. Public Health Service in Washington, D.C. And he was visiting Seattle to check on port activities and quarantine activities in the northwest. Thus he met with Dr. Sandy Lehman, my chief, and myself, for discussion of what was going on in this area. Somehow, during the course of our discussions, Europe entered the discussion, and I exclaimed that I’d always dreamed of going to Europe. To which Andy Sackett responded, “Well, I’ve got just the thing for you”. (laughing) Dr. Edward O’Rourke, chief of the medical department in the embassy in London, has been handling epidemiological matters in some fashion. But we want to strengthen that activity in Europe. And Dr. O’Rourke would be returning from Europe the next summer, 1961. And Sackett suggested that I should replace him. Well, (laughing) that immediately caught my attention, and Dr. Lehman was probably not too happy about (laughs)—about this intrusion on his and our plans. But, quite quickly we did
work it out that I was recruited to replace O’Rourke as epidemiology consultant for the U.S. Public Health Service-Europe, the following summer. (airplane passes) This changed my life: just a week before that, we had put earnest money down on another house in Laurelhurst and I regretted that. But in retrospect, it was all for the better, because we did move to this better house and enjoyed that during the next nine months before moving to France. And while in France, we all knew where we would return in two years. And when we did return, we shared the children’s ecstasy as they got back to their home and their neighborhood and their friends. In the fall of 1960, I soon began planning for my departure in 1961. I’d been doing quite a lot of research on this or that problem, along the way, but I’d been getting increasingly busy with administrative stuff and committee meetings, so I really hadn’t been able to write up and publish much of the work I’d done. Then I realized that I had to get all this work analyzed and written up during nine months or it would be lost. So, I started staying late at the office down at the Public Safety building—staying several nights a week to about 10 P.M. And, soon discovered that after everybody else went home, I had quiet time to analyze and write and so forth. So, I did proceed to analyze and prepare for publication quite a number of articles on studies we’d done. And also, one thing I did, knowing this was my last year at Seattle-King County as epidemiologist; I tried to make a particular record of what I was doing, presented as an extensive report for 1960. By then I had gained a lot of experience, epidemiologically and also with the epidemiology and history of many diseases in Seattle, practicing my profession under favorable
circumstances, and I thought it would be useful for posterity or young epidemiologists to know the range of activities one may engage in epidemiology. It’s a wonderfully flexible discipline and can be applied to virtually any social problem needing solution. Anyway, the year went by, swiftly, and in the spring we picked up and left Seattle—rented our house to others—then went first to Wisconsin for some vacation with my mother and family there. And then, I left my wife and children there in Luck, Wisconsin. My mother had the old farm, right by the golf course and the lake. And my wife’s parents were in Minneapolis, so they stayed for six weeks while I went on to initiate my activities with the Division of Foreign Quarantine of the U.S. Public Health Service; right after the Fourth of July, I went to Washington, D.C., for orientation with the Division of Foreign Quarantine. Part of the justification for this epidemiological activity in Europe was, indeed, the problems of possible biological warfare. So, I was programmed for orientation at Fort Dietrick, in Maryland, the headquarters of biological warfare expertise in the Public Health Service.

Sharpless: And this would have been right at the height of the Cold War.

Ravenholt: Yes, in 1961 the Cold War was still on. After that, I went to New York to become familiar with the Port of New York handling of incoming ships, and passengers. They flew me over to Paris on the night of the fourteenth of July, so I missed *Quatorze Juillet* in Paris, arriving the morning after the big celebration. (laughing) I suppose it was dictated by the availability of air passage. It was indeed the beginning of a big adventure. Initially, I tried to get attached to the European branch of the World Health Organization,
headedquarterd in Copenhagen, because I was bilingual in Danish, so it would have been very easy. But no, they insisted it would have to be Paris, so there was a language problem, because I had not found the time to learn much French before arriving in Paris. I did then study it enough that I could get around fairly well. But Paris, of course, was a big, new experience. Really a vitalizing kind of experience in a new culture, language and all that. I was there as epidemiology consultant for the European Region and whenever there was a major epidemic in Europe, I could go and investigate it. But little preparatory arrangements had been made. Initially, for some months, I borrowed a secretary. I needed a bilingual secretary, a good one, because communications was mainly what I had to do. With the National Ministries of Health in Europe, and with the Division of Foreign Quarantine and CDC and other American entities. Before the family came over, I managed to rent an apartment in a suburb of Paris, Vaucresson, west of Paris, beyond Port de Saint Cloud, a few kilometers from Versailles. It was actually a new apartment, and in a very lovely setting in a little park in this suburban village. We had decided that we would try to put the four children into the French public schools, and that proved somewhat of an adventure in itself. The two girls, Janna and Lisa, went into the École des Filles de Vaucresson. Janna entered fourth grade there and Lisa, then six, entered first grade. They both did very well, (airplane passes) but Lisa’s whole experience, because she was starting first grade was quite remarkable. Stop for a moment. I’ll show you something.

**Sharpless**

Okay. (pause in tape)
Ravenholt: You saw Lisa yesterday.

Sharpless: Yes, I did see Lisa yesterday.

Ravenholt: Here’s Lisa as a—

Sharpless: Here’s a photograph of Lisa as a French first-grader.

Ravenholt: Yeah, (Sharpless laughs) and here is with her classmates, there.

Sharpless: Okay, standing—three little girls standing hand in hand.

Ravenholt: In France they have a system of *cahiers*—these are *cahiers*.

Sharpless: Uh-um.

Ravenholt: And let me see here, now.

Sharpless: C-A-H-I-E-R.

Ravenholt: Right. I'll just show you, because with this you can actually see the remarkable and unmistakable progress in the first grade. They enter formal work in such *cahiers* daily or several times weekly; and when filled, it is sent along home for parental perusal and signature.

Sharpless: Okay.

Ravenholt: So, see how they start not knowing any French.

Sharpless: Okay.

Ravenholt: Both in red and in blue. But then, this little arithmetic things.

Sharpless: Um-hm. The drawing looks like one or two apples. “Two times one,” an—

Ravenholt: See, they start—here you see it happening—using a pencil.

Sharpless: Yes.

Ravenholt: Now, look at this. So, of course, even not knowing any French, Lisa could copy whatever she read.

Sharpless: Um-hm.
Ravenholt: And you see how nicely the teacher writes.

Sharpless: Yes, the teacher has a beautiful hand.

Ravenholt: Yeah, well, that’s pretty typical, I think. So, you know, gradually, she just—so it—even not knowing any French, she could copy, see.

Sharpless: Draw pictures.

Ravenholt: The first *cahier* was done in pencil. Then, here’s number two. And here it is, “Tuesday, 7 November.” Now, switching to stick pen and ink.

Sharpless: Ooo, I see that, yes. So, a good situation with the French schools.

Ravenholt: Well, I’ll just show you quickly. This is the third *cahier*—sixth *cahier*—now we’re into March. But, see how the—

Sharpless: Hm-hm.

Ravenholt: —how much that has strengthened.


Ravenholt: And here’s—seven—April—(laughing)

Sharpless: Beautiful hand.

Ravenholt: I’ve been so exasperated with the American notion that children should print during three years before learning cursive writing.

Sharpless: Beautiful. Does she still write a pretty hand?

Ravenholt: Oh, yeah. Oh, this was four and three and that is seven—let’s see. Here is the final one. See, that’s first grade.

Sharpless: Yes, wow. That’s amazing.

Ravenholt: (laughing) See, that’s first grade. (laughing)

Sharpless: Writing a beautiful hand in ink.

Ravenholt: And then they do the—they do the report card.
Sharpless

Uh-um. It’s the large—

Ravenholt

It’s done numerically.

Sharpless

Uh-um.

Ravenholt

They give each subject a weight of ten or twenty. Like arithmetic would be given twenty, but some of these others ten, and then the teacher marks a grade and then totals them at the end for the report card. And then the children are rank-ordered.

Sharpless

Oh, goodness.

Ravenholt

Then it’s rank ordered. By December, actually, she was eleventh with thirty-one French girls, in February, fourteenth, but by June she was number one in the class with thirty-one French girls. (Sharpless laughing) In the U.S., many say immigrant children must enter bilingual schools, but our entire experience indicated the value of total immersion in the language to be learned. Do you know French?

Sharpless

Not well, no.

Ravenholt

Well, you know, it—now this was a good school. It had a woman directress, Madame Raboin, she was not only the—

Sharpless

That’s R-a-b-o-i-n.

Ravenholt

Yeah, she was not only the directress, but she was married and had two children of her own. She lived next to the École des Filles, the girls’ school—450 girls. She had only one administrative assistant. She also taught mathematics, and sewing to some extent, to these kids. But, it was a tour de force, what she did. It was really something. In the second year, I think she would have been number one again, except in April, Lisa developed hard
measles and missed three weeks of school, so she ended up fifth in the second year. But it was a great experience for them. Returning to Seattle, I showed the principal what she’d been doing in second grade in France, and he allowed there wasn’t any point in her taking third grade, where they would just be learning to write. (laughing) So, she skipped third grade and went into fourth grade, which was a tragedy because, had she gone into third grade, her classmate would have been Bill Gates. (both laughing) Who knows, we could have become a billionaires. (laughing)

**Sharpless** Interesting. Well, what was the most interesting part of your work in Paris?

**Ravenholt** Coming to Paris—it was a unique, one of a kind job in the world, (laughing) with the American Embassy, and roaming out from there.

**Sharpless** Uh-um.

**Ravenholt** Going through New York City, en route to Paris, I visited a key person at American Public Health Association, on Broadway, there, and showed her the results of our mortality studies. Then she invited me to present this as a major speech at the annual meeting of the American Public Health Association in November, in Detroit. I agreed to that, so I was busy completing that and staphylococcal and quite a few things that I’d gotten well along with, while also working to get my office set up with an effective secretary and so forth. In November, I went back to present this major paper at the American Public Health Association meeting. And just after getting back from there, the State Department requested I go down to Portugal and analyze what the hazards were for American tourists in Portugal. Going down to Portugal, I employed a young woman with the embassy to help me,
because I didn’t know any Portuguese, and we went through the daily paper as the best source of information during some years. And it quickly became apparent that the main hazard to tourists coming to Portugal, is the traffic accidents. The taxi drivers drove like madmen. That, overwhelmingly, was the most important hazard. At the end of December came the first smallpox outbreak that I was aware of, which happened up in Britain.

Sharpless

Uh-um.

Ravenholt

A seven-year-old Pakistani girl had come in from Karachi the third week in December, and within a week had become ill, was hospitalized at the Bradford Children’s Hospital in Yorkshire and rapidly died. Misdiagnosed, initially, but then eleven days later, one of the cooks at Bradford Children’s Hospital and a father of one of the other patients came down with virulent, hemorrhagic smallpox. Then it was recognized. The pathologist who had done the postmortem exam on the Pakistani girl had never been vaccinated for smallpox. He of course got vaccinated that day, but it was too late. I had good communications with the key British public health leaders and I went up to Yorkshire—to where the action was—to Bradford Children’s Hospital and to the Oakwell Smallpox Hospital. They had, at that time, in Britain, they had in each region, a hospital facility set aside, empty, waiting for possible smallpox. And they had this one outside of Leeds, the Oakwell Smallpox Hospital, which indeed received smallpox. Now, it received a half a dozen pediatric cases, and the pathologist who developed smallpox. I saw him four days later when he was just breaking out with skin lesions. His eyes were bothering him, so he put on dark glasses while I was there, but died five days
later. A curious thing was that Britain had had a very virulent anti-vaccination movement. Vaccination had been made compulsory back in the nineteenth century and the people had reacted negatively to any compulsions. So, there was a virulent anti-vaccination activity. Thus the pathologist had never been vaccinated and seventeen of the fifty-six nurses at the children’s hospital had never been vaccinated. While I was there, there was panic in the streets and intensive effort to vaccinate them, with long queues of people waiting to be vaccinated.

Sharpless Let me turn the tape.

_Tape 3, side 1, ends; side 2 begins._

Ravenholt Coming back from there, I stopped at the Columbia Hotel—an American Armed Forces hotel—being in the Public Health Service I had access to the armed forces facilities. I stopped there before I went up to Yorkshire to see the smallpox victims. Upon my return, as soon as I came into the hotel, the woman at the desk asked, “Did you see any smallpox cases?” (laughing) To which I responded affirmatively. And she and others immediately moved away from me. And they likely took special measures with my room.

Sharpless I bet they did, too.

Ravenholt Then soon there was smallpox in West Germany, too, and the next year there was smallpox, again in England—in Wales and also in Stockholm. So, I saw a lot of smallpox during these two years more than they’d had in many years. Due to the increased travel—the immigration from Pakistani and India and the commercial travel from Africa brought smallpox repeatedly into Europe, (lawnmower in background) which was both interesting and
challenging. Another epidemic of commanding importance was the large
typhoid epidemic at Zermatt in Switzerland in the winter—spring of 1963.

Sharpless
Uh-um.

Ravenholt
And earlier, in 1961 and 1962, the historic thalidomide epidemic occurred,
with thousands of infants being born without normal limbs.

Sharpless
Right. Morning sickness drug.

Ravenholt
So, I had a lot of interesting times in Europe, both professionally and travel
with family. The summer of ’62, we spent a month traveling in Scandinavia.
My wife, Millie, was of Norwegian descent and we visited relatives of hers in
Norway, and relatives of mine in Denmark. And had very pleasing
experiences. While in Europe, I kept busy writing up and submitting for
publication many things I’d done in Seattle. These were then published in
’61,’2, ’3. This led to my being invited to become a full-time member of the
faculty at the University of Washington, as associate professor of preventive
medicine. Upon my return to Seattle, I could have gone back with the Health
Department. Indeed, Dr. Lehman and the King County commissioners and
the Seattle councilmen were all urging me come back. But during years I had
been seeking quiet time to complete research on my long-held concept that
cancer was the product of malignant cellular evolution. I knew I needed to
get some peace and quiet so I could delve into that fully. And so that was my
main motivation in coming back to Seattle, to go with the university. And
indeed, that’s what I did. I had delved into smoking and lung cancer before
going over. And when starting at the University of Washington, in

September of 1963, one of the first things that really impacted me was seeing
that most of my colleagues—more than half of my professorial colleagues were busily smoking cigarettes.

Sharpless

Um-hm.

Ravenholt

—up and down the halls and in meetings, as though they’d never heard it had anything to do with health. (laughing)

Sharpless

Hm-hm.

Ravenholt

So, rather immediately I wrote three letters. From my public health experience, I had some awareness of how to proceed with trying to solve a problem. I wrote one to the state director of health—Dr. Barney Bucove asking him, “What is the State Health Department doing about the problem of smoking in health?” One to the dean of the medical school—Dr. George Aagaard, “What are the polices of the University of Washington with respect to smoking?” And one to the director of the University of Washington hospital, Mr. Rambeck, asking him, “How many cigarettes did you sell last year?” Barney Bucove wrote back saying, they weren’t doing anything, but they were thinking about it. And Dean Aagaard said they didn’t have any policies—would I care to suggest some? And Rambeck, the hospital administrator said the hospital gift shop had sold 24,000 packs the preceding year, but he didn’t know how many had been vended by machines. Cigarette vending machines were operating throughout the Health Sciences Building.

Sharpless

And this was after the Surgeon General’s report?

Ravenholt

No, this was before.

Sharpless

Before? Okay.

Ravenholt

I started gathering information and teaching, there in the fall. Doing some
more writing. Just at the end of the year—in December. Dr. E. Cuyler Hammond published a very important paper on the mortality from smoking in America—the American Cancer Society study, showing that smokers were dying more than twice the death rate of nonsmokers. And in January of 1964, two very important actions occurred—Doctors Radford and Hunt at Harvard published an article in Science reporting that tobacco smoke contains Polonium 210, a radioactive isotope. And the Surgeon General’s report was published on the eleventh of January, 1964, saying somewhat tediously, that smoking causes lung cancer and also was associated with more heart disease. But any competent epidemiologist surely knew that long before then. But, this got me additionally into focusing on smoking and I’ve got lots of articles in my files from then, the university daily reports and so forth. Along the way, that winter, I developed a new way of measuring lifetime smoking experience, by charting the average numbers of cigarettes or packages of cigarettes smoked daily by year of life—whether it’s one pack, two packs, or three packs a day, et cetera, then one can get a fairly accurate knowledge of how many cigarettes the individual has smoked in a lifetime.

**Sharpless**

Do you find that people remember?

**Ravenholt**

Yeah. They remember, you know—did you ever smoke?

**Sharpless**

No.

**Ravenholt**

Did your husband ever smoke?

**Sharpless**

No, but both my parents did.

**Ravenholt**

Do you know what age your father started smoking?

**Sharpless**

About sixteen.
Ravenholt: Then do you know what he might have been smoking, say when he was in college or—

Sharpless: Uh-uh.

Ravenholt: But he was smoking?

Sharpless: Yes, he smoked until he had a series of TIA’s when he was about seventy-eight.

Ravenholt: Seventy-eight, okay. Here’s ten-twenty-thirty-forty-fifty-sixty-seventy-eighty—so, about—he stopped then?

Sharpless: Hm-hm.

Ravenholt: Well, we know he in all probability smoked at least a pack a day, because when they’re addicted to cigarettes, usually they smoke about a pack a day to feel comfortable. So, let’s say—he may have smoked two packs a day.

Sharpless: I think he probably did.

Ravenholt: Well, let’s just draw it like that. Then we can judge about how many cigarettes he smoked.

Sharpless: Hm-hm.

Ravenholt: Because, let’s say he starts at sixteen and he probably went up to a pack fairly rapidly, like that. Well, each of these rectangles equals seventy-three thousand cigarettes. I’m going to remember my—

Sharpless: —remember your formula?

Ravenholt: Well, a pack a day is twenty cigarettes a day times 365 days is 7,300 cigarettes a year.

Sharpless: A year. (speaking at same time) So, 73,000 for ten years.

Ravenholt: And for ten years it’s 73,000. Each of these rectangles equals 73,000.
A quarter of a million—three quarters of a million cigarettes.

Three quarters of a million cigarettes. Your dad may not have smoked a pack and a half in there, but see, ten times 73,000—730,000. And so, he’s somewhere in that ballpark. Is he still living?

Yes.

He’s lucky to have lived that long.

Yes, he is.

I devised this and published it in the *New England Journal*. And then I used it—“Cleanliness Should Begin At Home” so with the dean’s approval, I went ahead to collect data on smoking from all the faculty of Health Sciences. I sent the questionnaire with a brief letter to every member of the faculty; got responses from about half the faculty, then sent the questionnaires again to all who had not responded. Got responses from most of them, the phoned all those who had not responded, and finally had responses from 250 of the 253 faculties of medicine, dentistry, pharmacy, and nursing. And about six weeks after I got these data from all the faculty, the associate dean of the dental school developed his lung cancer. And so, I reached over to my file to see what his smoking history was. Well, his smoking history was similar to your father’s. He smoked about three-quarters of a million cigarettes. And of all the 253, he was the person who had smoked the most cigarettes.

Hm.

He soon died of his lung cancer. So, this occupied me. But also, in December of ’63, a person from the American Cancer Society visited the University of Washington, and when I showed him some of the things I’d
been doing and my interest in cancer, he invited me to the Sixth Annual Science Writer’s Seminar by the American Cancer Society for the following March, in Palm Beach Shores, Florida. Well, this I saw as the ideal opportunity to get busy and try to complete my write-up on malignant cellular evolution. So, I really threw myself into intensive investigation and study in the library for the next three months. And in the course of that, after about two months, it came fully to mind that not only can one best understand cancer as the product of malignant cellular evolution, but the same phenomenon is occurring within arteries, and, hence, the same phenomenon may best explain the development of atherosclerosis of the cardiovascular system. Which I don’t think anyone had ever mentioned before that—that atherosclerotic cardiovascular disease was really the product of the same, fundamental malignant cellular evolutionary process. Inescapably, the same evolutionary process is occurring among the cells that constitute and line the arteries of the body. And when those cells go astray and form a tumor, it’s called a coronary occlusion. It’s not thought to be the same process, but it is, fundamentally, the same process. The chairman of the Department of Preventative Medicine, Dr. Thomas Grayston, had the rule that before a member of the faculty could present a paper anywhere it had to be submitted to the chairman for perusal and approval. And there came a time there in mid-March, when Grayston was going off to Taiwan—he had a research prospect there. And I was busily writing my paper for presentation in Florida, not yet completed. But, he was leaving for a month, so I submitted my draft to him. And the next day he wanted to have lunch with
me. We had lunch, and he was very emphatically upset with me for having the temerity to delve into cardiovascular disease and cancer, as I was doing, and said he could not approve my presenting the paper at the ACS meeting. Well, it was a concept I had been developing during fourteen years, and my view of intellectual freedom differed from his. I kept my cool and then suggested that because he was leaving the following day, why not agree that when completed I show the paper to Dean Asgaard and several other department chairmen, and be guided by their reactions as to whether I would present it in Florida. Why don’t I submit it to the dean and some other department chairman and in your absence be guided by their reaction whether to proceed to present it or not. Well, it'd be pretty hard for him not to permit that to occur. So, that’s the way we proceeded. And, the dean didn’t see any problem with it, and the Pathology Department, which had most of the relevant expertise thought it was of interest, and couldn’t see why I shouldn’t present it. There was just one chairman, of the microbiology department, who didn’t like it at all, because he had a dream that all cancer was due to viruses. And this would pull the rug out from under that. Some cancer is due to viruses, but not all cancer. But anyway, it ended up that I did go ahead to Palm Beach Shores and did present it and only got moderate response of that assemblage of the nation’s top science writers, most of whom were smoking while listening to presentations on cancer. There were three Nobel Prize winners there, including Dr. Szent-Gyorgyi of Vitamin C fame. When Grayston came back from Taiwan he called me, again to have lunch with him. And this time, he was very irate with me, saying my
involving the dean and other department chiefs had caused him to lose face. He cussed me up one side and down the other for having done that. I weighed then whether to depart my role at U. of W. But I am somewhat tenacious. I deeply believed in the soundness of my MCE concept, but also realized I had no experimental evidence to substantiate it. After additional thought, I realized there was a way I could test my theory by means of the Oppenheimer phenomenon. If inert membranes are implanted under the skin of rodents, depending upon the size of the implants, a large proportion will develop cancer in association with the implants within a year or two. Then, because I did not have the lab facilities, I wagered with Dr. Rich Prehn, an associate professor of pathology, that if we implanted mice with equal area pieces of cellophane, that certain shapes would be more provocative of cancer than others. Even though they’re of the same substance and it’s equal surface area, but they’re different shapes. He asserted that they wouldn’t. We bet $25.00. I helped his technician implant three groups of one hundred mice each with three shapes of cellophane. We wrote out our wager and signed it.

**Sharpless**  
Um-hm. Right, you showed that to me yesterday.

**Ravenholt**  
And a year later, indeed, it worked just the way I said it would. And he paid me to that effect. Well, the MCE incident had disaffected Grayston and the fact that my experiment succeeded angered him additionally. And at the annual meeting of the American Public Health Association in Chicago when I described to my friend from CDC, Dr. Ernie Tierkel, the problems I was having with Grayston, he said, “Oh, we’re just starting this global population,
family planning program and why don’t you come and direct that?” And that led to my going to USAID to direct the development of a global population/family planning assistance program.

Sharpless: Yes.

Ravenholt: But that brings us to that point.

Sharpless: Perfect.

*end Interview 2*
Interview 3

Sharpless

Today is July 19, 2002. My name is Rebecca Sharpless and this is the third oral history interview with Dr. Reimert Ravenholt. We’re at Dr. Ravenholt’s home in Seattle, Washington. And we’ve just had a good Thai lunch, and we were talking—you had—your work was undergoing great critical scrutiny—negative critical scrutiny at the University of Washington, and you mentioned this to a friend at a conference and the friend said come to USAID [U.S. Agency for International Development].

Ravenholt

Yes, it was October of 1965, and I was at the annual meeting of the American Public Health Association, in Chicago. And I mentioned to a friend, Dr. Ernie Tierkel, that I had met repeatedly—and knew well at CDC [Center for Disease Control] in Atlanta—that I was encountering remarkable lack of intellectual freedom at the University of Washington, in dealing with fundamentals of cancer. And he said, “Oh, you should come work with us. We’re just developing a global population family planning program. You could head that.” And, as it turned out, he was the deputy director of the health service of USAID and the incoming director was Dr. Malcolm Merrill, who had been director of the California State Health Department for a dozen years and was just leaving that to take oh his director role at USAID. I knew him, too. So, they invited me to come join them at USAID. I went back to D.C. in November of ’65 to have a look at that job—visiting them at USAID, Department of State. Also, being interviewed by Marvin Watson, a headhunter for President Lyndon B. Johnson, at the White House. But I was somewhat turned off by my visits at the State Department and White House,
by the incessant people and busyness, contrasting with Seattle, where I had more space and freedom—quiet. So, for a bit I was thinking, I don’t really want to move back there. But then, as I gave it additional thought, I realized that if I did not, I would be drawing a high water mark on my public health career—as an epidemiologist I understood thoroughly that the population dynamics are of everlasting, fundamental importance in determining public health dynamics. But, I was resistant to giving up my research on cancer. I had gotten deep into cancer research and was resistant to stopping that. The job at USAID had the potential of being a most important public health role and job. So, just at year’s end, I finally decided to take it, and told my wife and children that we would move. My daughter, Janna, was then a sophomore in high school, and it agonized her and it agonized me that she would have to leave and move east. When one decides to join the federal government, it takes, ordinarily numbers of months for the security clearance and everything to occur. And so, in February, I went back and worked at USAID in Washington D.C. during the month of February as a consultant. Then, I came back to Seattle to clean up things at the university. Had the timing been different, I might not have moved, because the paper that I had prepared on malignant cellular evolution was finally accepted by the foremost British publication, *The Lancet*, and was published on March 5, 1966. And had that moved forward a few months earlier, I might not have left Seattle. But, then in April—I left the family in Seattle to finish school and I flew on back to Washington to begin my new work. Initially as chief of the population branch of the Health Service of the Office of Technical
Cooperation and Research of USAID.

Sharpless  
Goodness.

Ravenholt  
The function was touted to be of great importance, President Lyndon Johnson gave thirty some speeches emphasizing the importance of action on the population explosion—“next to peace, the most important task.” Hence from Seattle, it seemed I would receive whatever I needed to run a program in Washington. But in the event, I was dismayed to find an enormous gap between what I expected and what was at hand. Although the president was saying how important it was, all I got was an office about this size, fifteen feet square, in the State Department, one secretary and no earmarked funds. With that I was supposed to drop the birthrate of the world. (laughing)

During the first year, 1966, I managed to get two other assistants, but couldn’t get a second secretary. This was a problem because I needed to communicate more fully with many people. Really, it looked hopeless. We didn’t have money; we didn’t have people. And I realized I’d made a huge mistake. But my pride wouldn’t let me just admit that—tell everybody and immediately say goodbye. In penance to myself I decided to stay and work a year. Teach me to be more careful in the future.

Sharpless  
Had your family moved by then?

Ravenholt  
Not immediately. They remained in Seattle until midsummer then came back. But everything had been set in motion. At that time, my brother, Eiler and his wife Edna worked for Hubert Humphrey when he was a senator and when he was the vice president. We also had friends in Washington, D.C., we had been together with in Europe. So, we moved back. Meanwhile, at work,
there were many obstacles. Not only was there no personnel and no money, but the Agency for International Development. Administrator, David Bell, who was the administrator until the weekend before I joined, then departed to become vice president of the Ford Foundation in New York. But, the Friday before I arrived, he had testified to Senator Ernest Gruening’s committee that, No, AID did not need any new population policy. No, they didn’t need any earmarked funds, and No, they did not need to provide contraceptives.

**Sharpless**

It's a good thing he was leaving.

**Ravenholt**

Yeah. Well, it certainly made it clear why the cupboard was bare when I arrived. He was hung up in some fashion, on this. And had not moved with any strength during the three or four years that he was administrator. Anyway, I got aboard, and started to learn the ropes; started to become acquainted with lots of people in the population field—in the agencies, but also private—voluntary. I quickly became acquainted with General William Draper, who was an extraordinary talent and deserves huge credit for his population leadership during those years.

**Sharpless**

I know you’ve done some writing about General Draper. Tell me about him, a little bit.

**Ravenholt**

Well, General Draper was basically a banker—a Wall Street banker. His father had been a dentist in the New York area. Bill Draper studied economics at New York University, got a BA and an MA. World War II came and he was eager to get to France. But he never got to France, because his administrative program skills were such, that even as a young lieutenant,
then captain and major, he was so administratively competent that by the last year of World War I, he was commanding a military unit on the south end of Long Island caring for misfits. As troop ships were leaving for France they culled the misfits and those with venereal disease and dropped them off at Long Island. And so, he had 10,000 misfits under his command at the end of the war. (laughing) Between wars, he maintained his military reserve commission, even while working on Wall Street for Dillon and Reed, and he was head of personnel for Dillon and Read in '29, when the stock market crashed. And his big job was firing most of the people. But as Dillon and Reed built back up during the 1930s, he had a key role in arranging financing for the construction of the San Francisco-Oakland Bay Bridge. And anything that he touched, he would be a force in. Then in 1940, with the war coming on, he activated his reserve commission and became a colonel in the infantry. He told me he was at Fort Benning, Georgia, one day, out in the field training his regiment, when the Fort Benning commandant drove up in a jeep and said, “Hop in, George Marshall wants to talk with you.” They talked and George Marshall recruited him to his staff—the Army staff and put him in charge of military morale, where he had a role in the creation of the USOs to support military morale. But he still wanted to get into action, and so, at a certain point, it must have been ’44 he was back in the infantry as Deputy Division Commander, training troops in Hawaii, when again, he got a call from George Marshall who needed him for another task. He returned to Washington, and as the war was drawing to a close in Europe, he soon went to Europe, to Paris for awhile, then to Russia, and then he became Chief
Economic Czar with General Lucius Clay, playing a key role in the resuscitation of Germany. When Jim Forrestal became Secretary of the Army, William Draper became Undersecretary and he played a key role in changing the U.S. policies with respect to Japan. Until then, we had had a reparations policy as far as Japan was concerned. But, clearly we were heading down the same unfortunate trail we had with Germany after World War II. Draper played a key role in persuading the Congress and everybody concerned to change from reparations to a partnership in development of Japan. Which brought him the lasting gratitude of the Japanese leaders. Then in the early 1950s he resigned from the Army, worked for Dillon and Reed awhile, then as Director of the Long Island Railway Company, before becoming director of the Mexican Power and Light Company, which was having difficulties. Draper took it over and rather rapidly put it on its feet. And when it got going strong the Mexican government nationalized it. Bill had taken stock in the Mexican Power and Light Company and gained considerable improvement in his personal circumstances. Then he went to California and became head of the Combustion Engineering Company, and also launched Venture Capital Company. Then as he reached seventy years of age, he retired from private business. While still in Mexico, in 1958, President Eisenhower had appointed him chairman of a committee to study the U.S. Military and Economic Assistance programs following World War II. With improved communications, transportation, agricultural productivity, and public health a rapid amelioration of conditions occurred in many countries around the world and therewith a rapid drop in the death rate. In
Europe this was not so much of a problem because they had a tradition of birth control, but in the less developed countries, it was disastrous, because they had no tradition of birth control, and so the rapid drop in the death control meant a rapid growth in population, with no improvement in conditions. In response to that, President Eisenhower created a committee for the study of the U.S. Military and Economic Assistance Program, in 1958, and made Draper chairman. He had a blue-ribbon panel of experts with him, like Hoffman, the head of the Studebaker Corporation—outstanding people. Among its many recommendations, the committee recommended that the U.S. should assist the less developed countries with population problems. Draper realized the importance of this and devoted the last ten years of his life to helping in every way he could to solve world population problems. About the time I went back to Washington he became chairman of the Population Crisis Committee in Washington, D.C., and he and his executive secretary, Phyllis Piotrow were a tremendous help in getting things started in Washington. I got busy getting acquainted with these people, and with other people in the agency, and in other agencies in Washington. In the summer of ’61, I tried to get the policy changed with respect to contraceptives, realizing that we couldn’t have an effective assistance program if we couldn’t provide contraceptives. And I wrote an action memorandum to the administrator to change this in July. He held it until September, then he sent it back marked “disapproved.” When I inquired why he had disapproved, he said he didn’t think it really mattered, because when he had all the USAID mission directors gathered for their
annual conference in Washington in September, he had asked them whether the inability to provide contraceptives was hindering their development of effective population programs. They had unanimously said, No. I didn’t understand why any of them would say that until several months later, when I was in India. In October—November I made an around-the-world trip, including India and Pakistan. In India where USAID had a large aid program for India—about a quarter of a billion dollars a year—a lot of food aid. But I did not know until I got to India, that of the quarter billion dollars of aid, only eight million dollars was grant-dollar assistance, the rest was loan assistance. And the loan assistance was not much help. Certainly not for launching a population program. Dr. John Lewis, the mission director for India, would have known in a nanosecond, when Bill Gaud, the administrator after David Bell, asked him if we should change the policy on contraceptives, that if this were done, the eight million grant dollars would go to buy contraceptives, instead of the fertilizer plants that he was spending it on, for the Green Revolution. Then I understood that we could not build an effective family planning assistance program unless we got substantial grant dollars from Congress.

**Sharpless**  Okay.

**Ravenholt**  I learned many other things on that trip around the world.

**Sharpless**  Looking for the airplane out here.

**Ravenholt**  In ’66. One, the IUD [intrauterine device] programs, which had been begun in India and Pakistan by—with help from the Population Council, using Lippes Loops [IUD], had fallen into problems.
They had a high rate of infection, didn’t they?

Yeah, in India and Pakistan, they did not have adequate medical support for an IUD program. They could insert IUDs, but quite a few of those women developed discomfort, infection, pain.

So, the Population Council gave the money—gave the—

On another visit to India, in 1970, I met with a village chieftain in a rural village, and when we mentioned the IUD program, this prototypical village chieftain, with flowing white hair, and beard became intensely irate. He said that some years earlier, family planning officials had come and inserted IUDs in a lot of women and then departed. And when the women got in trouble with bleeding he had to somehow take care of them.

He was intensely irate that those problems had been dumped on him, and was surely going to prevent recurrence of such trouble. Hence, the IUD programs in India and Pakistan were at a standstill. A couple of rumors that were prominent in South Asia at that time having to do with IUDs: one was that when women got an IUD inserted it didn’t always stay in the uterus. Sometimes they migrated, and when they got to the brain, they bust. Another rumor was that because IUDs have nylon filaments attached, for removal when needed, a woman and her husband having intercourse, got him entangled in this so they couldn’t get separated. They finally had to bring in an ambulance and take them away, in the conjoined condition. They then did surgery and the man died. (laughing) The IUD program was pretty much dead in South Asia and has never revived in any large measure. I went to
Pakistan, too, and got acquainted with the Pakistan leaders Enver Adil, the head of the program, and with Dr. Nafis Sadik, his deputy.

**Sharpless**
I’m sorry. Where else did you go on that trip?

**Ravenholt**
Well, I’d gone to Korea, and Taiwan, and Hong Kong, and India.

**Sharpless**
And, these are all places that USAID already had missions?

**Ravenholt**
Well, we did in Korea, and we did in Taiwan, not in Hong Kong. But—so, I’d gotten acquainted with quite a bit in the Orient. Anyway, coming back from there, it was very clear in my mind, in 1966, that unless we got substantial grant-dollar capability, we could not build any kind of an effective program.

**Sharpless**
Let me turn the tape.

_Side 1, tape 1, ends; side 2 begins._

**Ravenholt**
Hence, upon returning I immediately got together with General Bill Draper and Phyllis Piotrow, of the Population Crisis Committee and rapidly convinced them that this was a high-priority need. Bill Draper then went to Senator William Fulbright, chairman of the Senate Foreign Relations Committee, and he wanted to help. So, we helped develop a Title X amendment to the Foreign Assistance Act, which earmarked funds for the USAID Population Program within the total Foreign Assistance Act. For fiscal ’68, $35 million; fiscal ’69, $50 million; fiscal ’70, $75 million; fiscal ’71, $100 million; fiscal ’72, $125 million. Thus providing us the resources needed for building an effective population assistance program.

**Sharpless**
How hard was it to get that legislation passed?

**Ravenholt**
It was really quite simply done by Senator Fullbright, because he and his
committee earmarked it, and it was put into the Foreign Assistance Act, for
fiscal 1968—signed into law by Johnson on the 2nd of January, 1968. So, we
suddenly had $35 million to work with.

**Sharpless**

Did you receive any difficulties from other agencies of USAID?

**Ravenholt**

Well, not immediately. Let me go back one step. In ’66, when I knew we had
to get money, we still had almost no personnel. But that changed in late
January ’67, when the agency reorganized—with the leadership of Vice
President Hubert Humphrey—to create the Office of War on Hunger,
having to do with the serious crop shortages in South Asia and the need for
supplying large quantities of grain to South Asia. When the Office of War on
Hunger was created, I became director of the Population Service of the
Office of War on Hunger, which lifted me one echelon in USAID. And, it
also gave me twenty-eight personnel positions. Suddenly from four I went to
twenty-eight. And most of the rest of that year was largely consumed with
bringing aboard those additional twenty-four people, and getting it all revved
up to work. So, in 1967 I got the personnel I needed to build a program; and
in 1968 I got the needed earmarked funds. Plus, Administrator Gaud, in
1967, changed agency policy so we could provide contraceptives.

**Sharpless**

How did that change?

**Ravenholt**

I had tried to get that done the previous July and Gaud had turned it down,
but I think it was eating a bit at his conscience. Gaud appeared before the
House Foreign Affairs Committee, and the chairman, Clem Zablocki, at the
end of the hearing asked him if there—if he foresaw any changes in AID
policy. Gaud responded, “No.” But then recalled the contraceptive needs
and said he thought that perhaps we would have to start providing some contraceptives. And Zablocki, a Catholic from Milwaukee, said, “Would there be any coercion?” To which Gaud replied, “No, there’d be no coercion.” So, de facto, the policy changed. So, by the beginning of ’68 we had the policy we needed. We had, not many people, but we had enough to get going with, and we had enough money to get going, so we could really, finally, seriously move toward making a program.

Sharpless
Okay. Well, we’ve been at it awhile, now. Do you want to take a break, or we could stop for the day, either way.

Ravenholt
Well, we could stop just for a little bit. (pause in tape)

Nineteen sixty-seven. I mentioned the—we were getting personnel aboard, and we moved our office once or twice in there, but with the growing staff, then, it becomes necessary to define who do we need for what purpose, and so forth.

Sharpless
Right, right.

Ravenholt
And so, we were recruiting, especially from inside the agency.

Sharpless
Okay.

Ravenholt
Because it takes so long to bring anybody in from outside because of security clearance requirements.

Sharpless
What kinds of folks were you looking for?

Ravenholt
Well, one of the first—just about the first one I recruited, there in February of ’67, when we got the reorganization and I got my own show, so to speak, the Population Service, was Dr. Hal Frederiksen. We had been together in the Epidemic Intelligence Service, roomed together in Atlanta in 1952. He
was born in Denmark, received an MD from Vienna and an MPH from Harvard. With USAID he had served overseas in a number of positions. He was a very strong epidemiologist and statistician. So, I naturally gave him responsibility in the demographic and social data area. Recruiting from within AID, I got Irene Walker, a veteran AID worker—a very good worker. Her specialty in AID had been the formation of cooperatives. She was thoroughly versed in just about everything that AID did. We had a natural tie on cooperatives, because my grandmother had been butter-maker for the formation of the first dairy cooperative in Wisconsin. Irene was very good with respect to agency rules and regulations about personnel and she really carried the ball in that area, for some time. Burt Johnson, agriculturalist by background, was an excellent writer and had had quite a lot of experience with population in India. He was very much into population information/knowledge. So, he played a key role in that. And, I had a very considerable interest in improving the various means of fertility control, especially IUDs, which were certainly far from perfect. So, as soon as we got money, we started a number of research projects. I had thought through what was the foremost, new additional means of birth control that we needed to research for. Defined it as “a nontoxic and completely effective substance which, when self-administered on a single occasion, would insure the non-pregnant state at the completion of a monthly cycle.” Cuing it to a woman’s capacity to ensure the non-pregnant state, a substance that would effectively terminate an unwanted pregnancy. That was sort of the ultimate new method that was needed at that point in time. In ’68—’67, ’68—we
began to provide condoms, and oral contraceptives. Oral contraceptives were very important, (truck backing up) and we always gave high level of support to this.

**Sharpless** What we were talking about—

**Ravenholt** The strategy.

**Sharpless** Yeah, and hiring personnel—the kinds of people you hired. So, you had the staff you basically wanted?

**Ravenholt** Well, no. Sometimes we had to take people from within the bureaucracy that had to be retrained. But, where there was a willingness to work, there was plenty of work to be done. (laughing) And, they could learn. But, as this was being mobilized, I had to progressively (airplane passes) define the fundamental strategy that we would be following. And sometime there in ’67, it was clear in my mind that what we were confronted with was really a massive public health program. That we really had to get the most effective means of fertility control out and immediately available to women and couples throughout the less developed world. The emphasis being simply on changing them from a condition where they did not have that option to where they would have the option of controlling their fertility with effective means. Because without effective means they were doomed to eight or ten or more children per family. This became clear to me in 1967, and in 1968 I published our strategy several times, especially in two articles in *Science* in February of ’68, and the one that I titled “AID’s Family Planning Strategy” was published January 10, 1969.

**Sharpless** Um-hm.
Ravenholt

I somehow managed to write this and publish it and nobody ever took me on, frontally to try and tell me that this or that was not right. I had enough knowledge in this whole field, by then, and my epidemiological knowledge, and public health knowledge was a great help. Indeed, when I joined USAID, the agency was filled with economists, many of whom thought I was a clinical physician; and they had little knowledge of epidemiology and public health.

Sharpless

Um-hm.

Ravenholt

In Seattle I had directed immunization programs, making immunizations so readily available that almost all children got immunized.

Sharpless

Um-hm. Right.

Ravenholt

And so, (airplane passes) it became natural to me, that when it comes to changing birth control, the first needed action is to make the most effective means of fertility control far more readily available to LDC populations. Oral contraceptives were most obviously needed. Likewise condoms and surgical means. I did develop and define the strategy of our program there in ’67, published in ’68. (airplane passes) They were then in the throes of “cultural revolution.” They had made some ineffective attempts at birth control programs beginning in ’62, after the Great Leap Forward and severe starvation. But their program was not well designed nor implemented. Then came Mao’s Cultural Revolution of the late ’60s, which further delayed an effective PRC birth control program. Hence, I believe it likely that the two articles that appeared in Science, one in ’68 and one in January of ’69—documenting the strategy that we were following—that the U.S. was going
forward with essentially a population, family planning assistance program
with the emphasis upon making available all the most effective means of
contraception plus abortion would surely have been read by the Chinese experts and leaders and may have strengthened their understanding of what China must do. My brother Albert Ravenholt, United Press war
correspondent during World War II, was well-known to Chou En Lai in Chungking during the war. They often ate dinner together. He was number two in the Communist government of China, and would have been involved in devising China’s strategy for the strong family planning program they launched in 1970 with their fourth Five Year Plan. So, I remain pleased that I wrote the concise statement of USAID Family Planning Strategy and published it in Science, where it would be readily read, even by China’s leaders.

As long as I was directing it, certainly there was no question what our strategy was. But beginning in 1977, with President Jimmy Carter, adherence to that Contraceptives Availability Principle progressively weakened. Before 1968, several population policy statements were sent to field officers.

**Sharpless**

Tell me about how those guidelines—

**Ravenholt**

Guidelines.

**Sharpless**

How were those developed?

**Ravenholt**

Initially, in ’66 or ’67, the earliest program assistance guidelines were jointly created between ourselves and the State Department, especially Phil Claxton—Philander Claxton—Special Assistant to Secretary of State Dean Rusk for Population. He was an old State Department hand and knew more about writing policy statements than I did. And so, he took a considerable
lead in '67, in policy statements—not so much strategy statements, but policy statements emphasizing the need for AID and State Department personnel to be getting forward with this program.

Sharpless
And what was the gist of those guidelines?

Ravenholt
Well, in a sense it was opening the gate for State and AID personnel to get busy and support the development of family planning assistance programs. Because this was necessarily a kind of a wrench as far as political pressures, you know, because of the intense religious constraint. So, we were breaking quite a lot of new ground with this. And I have those guidelines somewhere. I may put them on my website, now that you mention it.

Sharpless
Um-hm. That was done in association with State Department personnel.

Ravenholt
Right. When sending out such policy statements, you need all kinds of signatures, from all the various bureaus, and State and AID. So, it takes an incredible number of signatures. It’s interesting that in the bureaucracies, when signing documents, one simply initials the document; even if it involves many millions of dollars it is done simply with initials.

Sharpless
Hm.

Ravenholt
You only sign your initials.

Sharpless
Interesting.

Ravenholt
I signed “RTR” on many, many documents, committing the government to pay many millions of dollars. Before USAID, I had thought that all such commitments would require full signatures, as one does when concluding private business actions.

Sharpless
Uh-hm. Do you want to take a—
Ravenholt  Okay.

_Tape 1 ends; tape 2, side 1, begins._

Sharpless  Alright. This is the second tape of the third interview with Reimert Ravenholt on July 19th. Okay, we’ve taken a little bit of break, and Mrs. Ravenholt is home from her nursery expedition now. We were talking about the Population Program Assistance guidelines. And we’re going to shift now, to the goals that you set for the Office of Population. How did you develop those goals?

Ravenholt  Well, this happened when we were in the Population Service of the Technical Assistance Bureau.

Sharpless  Okay.

Ravenholt  And my chief was Joel Bernstein, the assistant administrator for Technical Assistance Bureau. And what was happening was we were developing rapidly. We were creating many new projects. We had the monies—$75 million, $100 million, $125 million—and we had staff—creative staff and so, we created many new projects. Let me see. There was something that— “Population Program Assistance.” We did an annual volume.

Sharpless  Okay, it looks like four quarterly volumes?

Ravenholt  Pardon?

Sharpless  That’s four quarterly volumes?

Ravenholt  Quarterly?

Sharpless  Yeah, how often did this come out?

Ravenholt  Oh, we did it annually for some years.

Sharpless  Okay.

Ravenholt: We had the six categories there. Let’s see now, ’70—what was this early one?

Sharpless: Sixty-eight.

Ravenholt: Here’s ’69. And it doesn’t have it so. Anyway, those six goals or approximations.

Sharpless: Okay.

Ravenholt: Under Joel Bernstein, we instituted the programming by six categories, correlating with our divisional structure, showing all obligations of earmarked population funds.

Ravenholt: So here we have population dynamics. For adequate demographic data, and so forth.

Sharpless: Okay, how were you gathering that demographic data?

Ravenholt: Well, I’ll come to that. Initially, in a number of ways, but then in ’71, I launched the World Fertility Survey.

Ravenholt: And also the Contraceptive Prevalence Surveys, and subsequently the Demographic Health Surveys. Here’s a training program for vital statistics and measurement of population change, Office of International Training. So, we’re putting money in there. Support to regional conference of the International Planned Parenthood Federation—just a little bit there. Training resources for nurses and midwives, participating agency service agreement.
with the Children’s Bureau. Study of the effects of population growth on—you can see all the projects—

**Sharpless** Right. Page after page of projects that you funded.

**Ravenholt** Yeah, and of course, because we only created whatever we felt we needed, we had an intimate knowledge of why we created every project.

**Sharpless** Who is “we”?

**Ravenholt** Myself, and my key staff. (motorboat passes) Especially my associate director, Randy Backlund, who was my operating officer—financial management person, and Dr. Bill Boynton, my deputy—very able. So, we and the divisional leadership; Dr. Joe Speidel for research. Each project was the product of a considerable thought and discussion, and understanding (motorboat passes) of what was needed and what the project would do. And so, we created project after project.

**Sharpless** Yes.

**Ravenholt** And then, Joel Bernstein, my chief, when confronted with great numbers of projects, had difficulty understanding their functions. He wanted to bring some order out of this, to make it more comprehensible. What each project was designed to do. We had a retreat once, where this matter of the six goals was threshed out with our principal staff and Joel Bernstein, and his deputy and a few program officers. After which they had a better understanding of what we were doing, and were more comfortable, with what we were doing. But, it grew out of simply the burgeoning growth of the program, and the need for sufficient (coughs) categorization.

**Sharpless** Right. So, you created the projects—you knew where you were going, you
created the projects, and then you developed sort of these six rubrics.

Ravenholt  Yeah, we kept developing these, and we had to sort them into categories.

Sharpless  Okay.

Ravenholt  Okay, now. The first goal: development of adequate demographic and program data. During the early years, Dr. Hal Fredickson, he was chief of that division and ran it with a lot of zest, until he died of bee stings in 1971.

Sharpless  Oh, goodness.

Ravenholt  After a while, the World Fertility Survey became the largest part of that. Though, from the beginning we had a PASA, Participating Agency Service Agreement, with the Census Bureau. AID always had that with Census Bureau, from its earliest days. We got quite a lot of help from them for some years, and then there was a time in there that they were more of a problem than they were a help. Then, development of adequate population policies. Of course, we were always concerned with policy development, particularly as it related to State Department, and as related to the population and family planning program policies of all the countries that we were concerned with. It’s something that academicians could spend an endless amount of money on. Then, the third category is development of improved means of fertility control, and more efficient delivery systems. This was under our research division and Dr. Joe Speidel. There was a time there a half a dozen years, at least, when I’m sure we had the most vital birth control technology development action in the world. Because, we thought through what we wanted, and we moved rather vigorously in efficient and direct ways to get it.

Sharpless  What you were talking about earlier about having the non-pregnant state at
the end of the cycle—

Ravenholt  

For research, I’d thought through what was the most important new means of birth control that we could possibly get. And defined it as “a non-toxic and completely effective substance, which when self-administered on a single occasion would ensure the non-pregnant state at the completion of a monthly cycle.” In December 1969, I participated in a donors’ meeting in Stockholm on India’s family planning program. And while there, Dr. Ulf Borrell, Swedish obstetrician at the Karolinska Institute, told me of the demonstrated success of prostaglandin use in terminating pregnancies. He gave me the information that they had just successfully used prostaglandin for the termination of two unwanted pregnancies at the Karolinska Institute. In other words, prostaglandin clearly had implications for erasure of unwanted pregnancies. Returning from Stockholm, I enlisted the help of Joe Speidel, who had graduated in chemistry at Harvard before he went into medicine. He was an ideal person, and we researched the field seeking help in moving more rapidly toward an effective substance, fulfilling that definition. Prostaglandin clearly was close to that. So, we started making grants to various organizations for that purpose. And indeed, it moved rapidly forward. Likewise we moved to improve laparoscopic equipment needed for improved tubal ligation services.

Sharpless  

And these were people in your office, and people you contracted with?

Ravenholt  

Yeah, it was my research division. Joe Speidel, the director of that, and Duff Gillespie, who has been in AID ever since. Gillespie was Speidel’s deputy, and they had a half-dozen staff researchers. Moving in that fashion, we really
sought to understand what was needed, and then found the very best place
to get the research done. In 1968, just as USAID got population funding, the
National Institutes of Health also got money. The National Institute on
Child Health and Human Development also had a research action for
fertility control technology. There approach was to issue an RFP—Request
for Proposal—which they published in multiple places. They got 257
research grant proposals and drowned in ’em. They had a small staff, and for
a number of years they couldn’t do a damn thing except try to answer and
handle all that paper.

Sharpless  Yeah.
Ravenholt  And of course, they had to turn down ninety-plus percent of those. So, they
were making enemies and really engaging in a most unrewarding pursuit.
Whereas we had (motorboat passes) decided what we wanted to accomplish
and we decided where the work might best be done, and we moved in a very
purposeful way. I tell you, as a taxpayer, our approach was far, far more
efficient than theirs. So, we had a very active research program going for
improvement of fertility control technology.

Sharpless  Now, in terms of the delivery, how did you survey the delivery procedures
out there—delivery of services? How did you find out what was going on out
there, in the field?
Ravenholt  Well, that really comes under Operations Research.
Sharpless  Okay.
Ravenholt  Because, I would say here that I was always attuned to the technological basis
in constructing of our program. I thought things through for each of the
technologies—birth control technologies—oral contraceptives, IUDs, condoms, voluntary sterilization, uterine aspiration. Now, what have we got—what do we need? The prostaglandin thing. I was a technocrat, really was very close to the technology and the epidemiology and all this, in a way that somebody coming out of most educational backgrounds, simply would not have been. Having come out of medical science and being steeped in research in various ways. So, now, when it came to improving programs, there were obvious ways that we felt that this needed improvement; again, based upon technology. When it came to oral contraceptives, I knew that the main thing was to change it so that the oral contraceptives would actually be out there and young women could actually, easily get and use them. So, we took every action we could think of to make sure that happened. In April 1973, Joe Speidel and I stopped in Cairo, en route to Kenya. We had a research project with some able people at the American University of Cairo aimed at improving the efficiency of a clinic-based program—IUD and other things. Then the Russians had come in, in connection with the Aswan Dam construction, and the U.S. had gotten out of Egypt, for I don’t know how many years. Now in ’73, the Aswan Dam, the Russians and the Egyptians had become disaffected. The Egyptians had become disaffected with the Russians and kicked them out. I hadn’t really been paying much heed to that, but in April of ’73, stopping in Cairo, we mainly wanted to review our one research project at the American University. We did review it, and I realized that it really was ill-conceived—that they were going through elaborate measurement, a time-study of this or
that in the clinics and so forth. But there was no way this was actually going to make any really important difference in birth control in Egypt. So, I told them that we would not renew that project. But then I saw an opportunity to move forward with something I’d wanted to do for quite awhile, which was to see just what could be done as far as direct delivery of oral contraceptives into every household. So, I proposed to Saad Gadella and Leila Hammamsy that they should undertake a project to test direct household distribution of oral contraceptives. They recoiled in horror at the very idea. But, when they became aware that the only way they would continue to receive USAID funding was for a household O.C. study, they somehow muscled up the courage to do that. They did succeed to move forward with the household delivery of oral contraceptives; having a male and a female fieldworker go to every household and offer three monthly cycles of oral contraceptives. And, they found, indeed, that nobody got shot. Nobody sicced the dogs on them. And they found that about two-thirds of the households accepted the oral contraceptives. They did not all immediately begin using them, because some of them were pregnant, or wishing to become pregnant. But, they accepted them.

Sharpless (motorboat passes) That must be an extremely time laborious thing to go door to door, though, and explain this concept to people.

Ravenholt It can be done. A team can go to quite a few households in a day. Fifteen minutes to a household, would certainly be about all it would require.

Sharpless Wow.

Ravenholt I would insist that the most important information you can give anyone—
any woman, about oral contraceptives, is some oral contraceptives. Give them to her, let her see them, hold them, feel of them. It inevitably will stimulate her thinking about them. Then, if you succeed in giving her some oral contraceptives, what happens in that household? Well, the first thing that happens—her husband is probably out in the fields—she must place them somewhere. Well, they don’t have chests of drawers, but they have string bags that are hung on branches or something around the room, you know. So, she would probably put the O.C.s in a string bag and put it up there. Well, the first thing that happens as a consequence of distribution of these oral contraceptives to large numbers of households is a storm of discussion, between householders. “What in the world is going on? Did you see what the government gave us? This package for birth control—three monthly packets. Have you ever seen anything like that?” So, inevitably, a spate of discussion among neighbors. Then, when the husband comes home from the fields at night, even if she forgot to tell him, he’d see that, “What’s that?” “Well, the government came and gave us this for birth control.” They probably hadn’t given much thought to it before, but here it is. The next thing that happens is, that some of the women—not all of them, of course, but some of them, begin to use them. We found that two-thirds of the households accepted O.C.s and about half of those soon began using them. Of course, they don’t all succeed. But, some of them succeed. And soon, there is a cadre of successful pill-takers in the population. And then, the most successful, the ones that are happy with their use—for whatever set of reasons, three months go by and they run out of pills. Well, they’re not going
to go ten miles to get a pack when they know that Mrs. X, a neighbor, got some that she hasn't used. So the O.C. user will go there and ask for her supply. And right then, a very important thing—a satisfied user, not pregnant asking this person who didn't use O.C.s, and may already be pregnant—for her pills. We found that within a year, between fifteen and twenty percent of the young women were using oral contraceptives regularly. The household O.C. distribution project results in many satisfied users, staying non-pregnant, and bound to be an important informant for neighbors. This is operations research—to change the program. Get rid of the nonsense, achieve immediate availability of what you’re talking about. It was always in my mind, to remove all unnecessary barriers between what we’ve got and where it should be, so that people could actually satisfy any motivation they might have to control their fertility. And we did many of these. We did it with various technologies—especially with orals, but also—actually for tubal ligation and abortion. For these the needed action is to establish good services—surgical services—within reach of the population and observe what’s happening. Development of adequate family planning services starts with having an adequate supply of oral contraceptives and condoms. And, I can tell you, it took a lot of doing to get that. As soon as USAID changed its policy to permit contraceptive assistance, we got busy writing the specifications for purchase of condoms and oral contraceptives. And Irene Walker undertook key responsibility for writing out the specifications for the purchase of condoms. (laughing) She was an old-fashioned woman and as we started talking about length and breadth and reservoir of condom
specifications, she blushed beet-red. (both laughing) Oh yeah, the old inhibitions were very strong, sometimes.

**Sharpless**  Let me turn the tape.

*Tape 2, side 1 ends; side 2 begins.*

**Sharpless**  Go ahead.

**Ravenholt**  So, we had to write specifications for oral contraceptives. These are wonderful opportunities for sharpening the program, because in '67, oral contraceptives were ordinarily packed twenty-one combined hormone tablets per package. Women would take one a day for twenty-one days, then stop a week while the woman went through the menses, and then start anew. But in the less developed world, without calendars, it really made sense to get rid of that hiatus, and to make it so they wouldn't have to check with calendars. And, we did that simply by innovating, putting in seven iron tablets—ferrous fumarate, 75mg, tablets in so that a woman took twenty-one hormone tablets and then simply took the seven iron tablets and she’d have her menses during that time; and then start right back on the next package. So, she could just eat through one package, eat through another package, and so forth. We innovated that, and it became standard and always worked well. There goes to boat to view homes of the rich and famous.

**Sharpless**  It’s an excursion boat out on Lake Washington.

**Ravenholt**  Yeah.

**Sharpless**  Followed by a sailboat. It’s a beautiful afternoon, out there.

**Ravenholt**  Yeah, it is. So—

**Sharpless**  So, delivery systems.
And, the condoms, initially we bought what was on the market in ’67, getting in orders ready for when the monies became available in January ’68. And these were the old, gray, non-lubricated condoms. But, progressively, we bought lubricated condoms and then in 1972, we were able to buy the first multi-colored condoms from U.S. production—from Dothan, Alabama. They were identified Tahitian and Samoan (Sharpless laughs) condoms according to their colors. And, we had red and green and blue and black, and all these different colored condoms. And, that helped to break the ice, because whenever I introduced a bunch of multicolored condoms to a new audience they couldn’t help laughing.

Right.

And wanting to look at them, and hold them, and so forth. And indeed, they were great icebreakers and good for moving the program forward. So, we bought colored condoms, then. Logistics were often a problem. It’s amazing how difficult it is to actually get the stuff out there. Often condom shipments would get stuck in the capital city. There’d be a supply in the capital city, but they weren’t out where the people were. And to move them out—first out to the states and the counties, that was a task. Then to the villages, but then it was to get them into the actual homes, we had to keep pressing, pressing, pressing, the system to get them out there. There’s an old Roman proverb, “Swords worn in Rome, win no battles.” And our motto was, “Contraceptives stored in capital cities prevent no births.” For our program we depended heavily on private voluntary agencies to get information and everything actually available in the villages and homes. When we got the
earmarked money in January of ’68, I immediately tried to make contracts with IPPF [International Planned Parenthood Federation] and Pathfinder.

**Sharpless**  
Uh-huh.

**Ravenholt**  
We finally managed to do it in a two-step process by the end of June, fiscal year ’68. And then we developed that further. And we used that same two-step mechanism with many organizations.

**Sharpless**  
And the two steps being?

**Ravenholt**  
First, obligation for a general purpose, and enabling them to use a limited amount of that for obvious needed actions, like hiring some staff and setting up an operating office, but the bulk of the monies, only becoming available for use under specific subproject proposals, submitted and approved by the USAID Project Monitor. We’d gotten $35 million available second of January, and we had to get it all obligated by the end of June. We had to break a lot of new ground, but using the two-step contracting method, we managed to get it all obligated by June 30th. Yeah, this picture. This was just at the end of June ’68. The administrator, Bill Gaud, and General William Draper, signing the documents obligating $2.7 million to the International Planned Parenthood Federation, which was the first use of this two-step procedure, but we managed to obligate those $2.7 million from fiscal ’68 funds and it broke the hymen of the whole thing. (Sharpless laughs) And, made it much easier in the future.

**Sharpless**  
Right, and I want to follow up on that tomorrow.

**Ravenholt**  
—private and voluntary organizations, see. And we created new ones. There was a Planned Parenthood Federation of America, but then we created a
Planned Parenthood Federation of America-International Project.

Sharpless

Right.

Ravenholt

And Association for Voluntary Sterilization-International Project.

Sharpless

Right.

Ravenholt

And one after the other, we created these new organizations that we could then give substantial funds to, and the whole thing moved with real strength. Whereas, earlier they would have been, sort of, starved for resources, and adequate information, education, and communication. One organization we created, from scratch, was a Population Information Project. This was aimed at provision of technical information, as needed to field programs. Really sound information on OCs [oral contraceptives], on voluntary sterilization, or whatever was needed. We needed to provide highly technical information to a broad spectrum of population personnel in many languages, quickly and surely. I had gotten well acquainted with Phyllis Piotrow when she was the executive secretary to General Draper. Then at a certain point, in 1969, she went to get her Ph.D. at Johns Hopkins. She didn’t pull out entirely from the Population Crisis Committee, but sufficiently that she pursued her Ph.D. for a couple of years. When she came out of that, we put our heads together to consider what we really needed to do. And that was to create an organization where we could choose a subject and then focus very capable people to quickly and thoroughly research the current status of that, whether it be oral contraceptives or IUDs or any technology, but also other subjects. And then, produce a very excellent, finished document. I’ll get you something, here just a moment.
Okay. (pause in tape) Okay, go ahead.

Phyllis and I really planned this out. The Population Information Program. The Production of Population Reports. Initially, we did this with George Washington University, (motorboat passes) but you can just glance at those, a sample of the things that were produced.

Right. I’m looking at the periodical called Population Reports from the Population Information Program at Johns Hopkins. (pause in tape)

Here we gained the capacity to really lead the world as far as sound technological information.

Hm-hm. These are technical reports, basically.

Yeah, but we also dealt with policies, and so forth. And with all kinds of family planning assistance.

Hopkins?

No, at Philadelphia—what’s the foremost women’s college in Philadelphia?

Bryn Mawr?

Yeah. She was summa cum laude at Bryn Mawr, and a very active person.

Well, we can talk some more about that tomorrow, that’d be good.

Yeah, that was one of the goals, develop an adequate information, education, communication.

Yeah.

So we had quite a few things going. And that has continued in various ways—the population information program funded by AID. The Community and Family Study Center at the University of Chicago. Some of the universities were important in that.
And the last goal is manpower and institutions?

Yeah, development of adequate manpower and institutions. So, we provide a lot of support to certain university centers like University of North Carolina and University of Michigan, Johns Hopkins University, (motorboat passes) Harvard some, University of California at a certain time—about a dozen universities at one or the other time—University of Chicago—we provided substantial support for training—a variety of training experiences. We created *de novo* at Johns Hopkins. We created JHPIEGO—Johns Hopkins Program for International Education in Gynecology and Obstetrics—created that especially to develop and implement the laparoscopic—tubal ligation program. So, there were many subcategories we trained for.

Okay, wait. But, you have—so, you have your six goals in place. Why—we’ve been hard at it today. Why don’t we stop right now?

I think it’s about time.

And we can talk about each one of these in more detail tomorrow, and later.

Right.

*end Interview 3*
Interview 4

Sharpless  This is the fourth oral history interview with Dr. Reimert T. Ravenholt. My name is Rebecca Sharpless, and it's July 20th, 2002. We're at Dr. Ravenholt’s home at 3156 East Laurelhurst Drive NE, in Seattle, Washington. And, too bad for Tiger Woods on the British Open, but it’s a beautiful day here, in Seattle.

Ravenholt  He should have had this weather in Scotland. Yeah, poor fellow. I mean, it’s horrible there. Cold and rainy, blowing. Oh, I hate to play golf in that situation.

Sharpless  It’s a gorgeous summer day in Seattle. And yesterday, we spent a long time talking about your getting into your work with the Agency for International Development, as head of the population work. And, you mentioned something yesterday that I wanted to follow-up on. You mentioned a reorganization in 1972 that enabled you to move forward with your work very, very rapidly. Tell me what was—

Ravenholt  Yes. We got reorganized repeatedly during the years I was with AID. Starting in ’66, we had a reorganization in ’67, which was very helpful, into the Office of War on Hunger. Then, in ’69 we were reorganized again, and the Technical Assistance Bureau was created and the Population Service became the Office of Population in the Technical Assistance Bureau. Joel Bernstein was the chief of that, and he was a very able, very hard working person, but at that time, each of the geographic bureaus had a small population nucleus. They each had their fiefdom and whenever we wanted to do something somewhere, we’d have to persuade, cajole, outwit them to implement an
action. Sometimes, there was a person in the geographic bureau who was completely cross-grained, and we simply couldn’t put in the kinds of projects in that would be desirable.

Sharpless Yeah, I think I know what you mean by geographic bureau, but tell me.

Ravenholt Oh yes, just that. Like the Latin American Bureau, the Near East/South Asia Bureau, the East Asia Bureau, and the African Bureau.

Sharpless And that was at AID, overall.

Ravenholt These were, yes, in the U.S. Agency for International Development. Their geographic bureaus, who were mainly responsible for the bilateral assistance programs—U.S. to less developed country.

Sharpless Okay.

Ravenholt I always directed the population program from the central bureau, but it wasn’t until 1972, another reorganization, this one under Dr. John Hannah, the administrator of AID, created the Population and Humanitarian Assistance Bureau, with the Office of Population the principle component agency. By this time, Dr. Hannah and his deputy, Maurice Williams, had developed full confidence in me and decided to put all population personnel in AID Washington into the Office of Population, under my direction. They created this Population and Humanitarian Assistance Bureau, early in ’72. During much of that year, we were busy absorbing the personnel from the geographic bureaus and strengthening our forces.

Sharpless So, you no longer had to say, “please” and “thank you” to the geographic bureaus?

Ravenholt Right. Then, because we had all the population people in Washington, and in
my office. I’d had these six functional divisions before, but then, my office gained geographic nuclei for each geographic region: Africa, East Asia, Near East and South Asia, and Latin America.

**Sharpless**
Okay.

**Ravenholt**
The difference was that they were all under my direction along with the technical divisions. So, if we decided an action should be taken in India or in Korea or someplace, make that decision in the Office of Population and then we could work directly with the population officer in the country mission to develop and implement the project. We could execute initiatives very quickly, in days or weeks, that used to take months or years or we couldn’t do at all. So, that was a great improvement over the effectiveness and efficiency of the USAIDS Population Program during ’72, ’73, ’74, ’75, ’76.

**Sharpless**
Hm-hm.

**Ravenholt**
We had a wonderful opportunity to move. But there were several things that happened that did still interfere with the program, greatly. One was the passage of the Helms Amendment to the Foreign Assistance Act in December of 1973.

**Sharpless**
Well, first of all you got Title X passed in 1967.

**Ravenholt**
Right. And—

**Sharpless**
And that was mainly through Senator Fulbright. (speaking at same time)

**Ravenholt**
That was an excellent statement. We’d helped craft it, so it gave us the ideal policy and also for awhile there, we had the ideal configuration, and with that, there in ’72, when we absorbed the geographic population people, I then had a staff of about 100, in the Office of Population of AID
Washington. Which was about right. We—of course, we didn’t have computers, but we could get the work done rather fully with 100 people, many of them were very dedicated, hardworking, capable people. During the time that I had a great shortage of secretarial help. During the years of secretarial shortage, I could not write many memos. Instead, I communicated with yellow “buck slips,” just a one-page yellow slip for passing things around. And, if I wanted to get a message to one of my staff, I would just write a sentence or two that’s faster than a telephone call. Because, if you make a telephone call, you’re held up talking about other things. But, with the yellow slip, I could write that in a moment and put it in the out-box and the secretary would see to it that it went rapidly to the appropriate division. And if I became aware that someone had done something particularly good, I would write a note, “Tom, great work on the Indonesia project. FSA,” Full Speed Ahead, and sign my initials. All done in a minute. Soon, I began to see my buck slip commendations posted above the desks of recipients, so others would know of the kudos. During those years, we really had a great esprit de corps—a lot of fun—a lot of argumentation, because my staff came to realize I didn’t mind that they spoke up vigorously for alternative viewpoints. Sometimes we’d have a good threshing, before it was settled. Sometimes, I accepted their views and modified agency policy or actions. When I occasionally wrote a memo on a key issue, I did so carefully, believing I must stand on it for the long haul. We had a very efficient office going, and the program was moving powerfully. I became aware that with respect to the adversarial Roman Catholic Church, one could do most anything, provided it
was ineffective. As long as it was ineffective, there wasn't much of a reaction. But, I learned to my dismay, that when one took very effective action, then indeed, the Church—the Vatican forces, took protective action. And that happened, particularly in '73. I had numbers of liberal Catholics on my staff, including three ex-Jesuit priests, and generally, they were supportive of what I did. But in 1970, I was in India along with Joe Speidel, chief of my research division, and General William Draper, (motorboat passes) and others in Calcutta. Earlier, the USAID mission had made a loan, not with our participation, but they had made a loan to provide assistance in India for vehicular transport. A very tedious kind of loan action, but finally vehicles were delivered to India. But when we visited Calcutta in October of 1970, someone took me out and showed me, in a field outside of Calcutta, all these vehicles standing idle. Why? Because when they made the loan to help get vehicles to India, they made no provision for gasoline and oil. So, the Indians simply didn’t have the money to operate the vehicles. When trying to do an action in a less developed country, where there is almost nothing, you really have to see to it that all the essential elements are provided for that action to occur. While we were in Calcutta, the newspapers reported the Indian legislature, the Lok Sabha, was moving to liberalize the abortion laws. And when we got up into the rural areas of Uttar Pradesh, it suddenly struck me that because of the lack of electricity in rural areas, we needed to develop some non-electrical uterine suction equipment, if the abortion laws were going to result in relief of unwanted pregnancies in rural India. So, returning from India, Joe Speidel and I made a contract with Battelle Laboratories to
develop non-electrical suction equipment. Eighteen months later, they brought in some equipment to show us which was obviously unsuitable—nobody would use. I was exasperated and said, “If you can’t do it yourself, why don’t you get Harvey Karman to help you?” Harvey Karman was a professional abortionist on the West Coast, who was not a physician, but had devised simple things: plastic cannulae. And he had also used an unmodified 50 cubic centimeter syringe to apply suction. Battelle did then employ Harvey Karman, and he helped them move forward. In the spring of 1973, they came back to my office and this time they showed me what we had been looking for. It was a modified 50 cubic centimeter syringe (motorboat passes) with a retractor that could be locked in place and it had a thumb-operated valve at the front so that with a plastic cannula on, you could close the valve and pull the plunger out and lock it, so that the vacuum was retained within the syringe. Then, the surgeon could insert the cannula through the cervix into the uterus and gradually release the valve so that suction was applied while applying a curetting motion. This was a very efficient way of terminating early pregnancies. It looked pretty ideal to me. We immediately enlisted the International Fertility Research Program, headquartered in North Carolina, which we had created in 1971 to test the new equipment. They had a corps of collaborating investigators doing studies of IUD performance and other fertility control technology. Through the General Services Administration of the U. S. government, we purchased one thousand Menstrual Regulation Kits—MR kits—a plastic basin with the syringe, a dozen plastic cannulae, a vaginal speculum, and just a few other
things in it—and we were able to buy these MR kits, paying only $8.70 a kit through a manufacturer in Kansas. We quickly supplied a few hundred MR kits to able obstetricians, gynecologists, and collaborating investigators in multiple countries under the International Fertility Research Program, and within several weeks the feedback made it clear that the MR kits were working very well. So, I ordered ten thousand MR kits.

**Sharpless** These were single use, right?

**Ravenholt** No.

**Sharpless** No?

**Ravenholt** No, these could be used multiple times. In fact, I have a friend—a woman obstetrician-gynecologist in Malaysia, who using one kit, with some replacement cannulae, did 6,800 pregnancy terminations.

**Sharpless** Wow.

**Ravenholt** This was remarkably cost-effective. In fact, some women used it themselves and nurses and midwives and others could use this with fair safety.

**Sharpless** And what about—

**Ravenholt** After ordering ten thousand MR kits, we set up a menstrual regulation conference at the University of Hawaii for December of 1973—inviting three hundred selected physicians from throughout the less-developed countries. And in October, believing we might as well get a really adequate supply, I ordered one-hundred thousand kits. Unfortunately, several Catholic members of my staff blocked the execution of the order for one-hundred thousand kits.

**Sharpless** You mean it just didn’t happen?
Ravenholt

Yeah, the order for the 100,000 got hung-up—repeatedly did not go through, despite the fact that Dr. Harold Pedersen, the chief of the Family Planning Service Division, was very much in favor of it, and pushing. But several members of his staff (motorboat passes) clearly were defecting on this. Anyway, they were in communication with Jack Sullivan and other Catholics, resulting in the creation of the Helms Amendment, introduced by Senator Jesse Helms and passed by the Congress and went into effect, in December of ’73. We were not able to provide (motorboat passes) assistance for pregnancy termination after that. In January, realizing that this work needed to be done by someone, we organized a meeting, inviting (tapping) the representatives of the various population, philanthropic, and other organizations—Population Council, Ford Foundation, Rockefeller Foundation, Commonwealth Fund, Mellon Foundation, and so on, to a meeting in Washington, at which we explained the situation—that somebody needed to take on this matter of providing the menstrual regulation equipment that we would no longer be able to provide. Clearly, for solution of excess fertility problems, provision of MR kits was a high priority action. But the only one that was willing to provide financial help for it was the Mellon Foundation. Don Collins and the Mellon Scaife May Foundation provided half a million dollars. And with that set up at Chapel Hill, North Carolina, an International Pregnancy Advisory Service—IPAS—which took on the task of production and distribution of the MR kits. Around the world, if women are really going to achieve the goal that they only have the children that are wanted and that they can well-care for, contraception is not enough
by itself. All contraceptives depend upon the exercise of foresight, and, as in most human activities, foresight is not perfect. Availability of abortion enables a woman to exercise hindsight and correct any flaws in her foresight—preventive fertility control. So, it’s essential, not just in the United States where it’s legal and fortunately has been supported by the Supreme Court, but, particularly in Europe. Abortion is readily available throughout Europe now—not in Ireland, but the Irish women in need simply go to Britain to get it. For European women, abortion is used whenever needed, and the birthrate in Europe—for all of Europe—now is down to ten live births per thousand population. Abortion is needed in developed countries, but is much more needed in the less developed countries if they’re going to come close to the universal control of fertility—universal reproductive freedom. Because, until she can correct the lack of effective contraception with access to post-conceptive means, such as uterine aspiration, the woman, indeed, is not entirely free as far as her reproductive function is concerned.

Sharpless

All right, let me turn the tape.

_side 1, tape 1, ends; side 2 begins._

Ravenholt

We were providing support—$10 million or so—for development of the prostaglandins, in this era, too.

Sharpless

And the effect of the prostaglandins was—

Ravenholt

This was fulfillment of that definition that I had made that we were seeking “a nontoxic and completely effective substance which, when self-administered by a woman, on a single occasion would ensure the non-pregnant state at the completion of a monthly cycle.” So, that if she
discovered that her menses was late, and she was pregnant, she could simply take a pill, either orally or some of them were used vaginally. The prostaglandin Cytotec, which came into use in the ’80s, especially in Brazil, has remained very good. The French came forward with RU-486, which was kept out of the U.S. for a long time, but has now become somewhat available. The combination of RU-486 and Cytotec is available and used increasingly—particularly in Europe and in Latin American countries, and needs to be used just about everywhere. With the MR kits and Cytotec and also RU-486—they have been available for quite awhile. But, of course the Roman Catholic Church has intensely resisted getting them more abundantly available. That's an ongoing problem.

**Sharpless**

And how did you answer the critics who presented abortion as a moral—as a moral argument? That it, basically, the bottom line is that they say it’s murder. How do you respond to those people?

**Ravenholt**

Ever since the pronouncement in 1870 that the Pope is infallible, they have adopted a line that not only is abortion unacceptable, but any effective control of fertility, including IUDs and oral contraceptives and sterilization. This has been a strong pronouncement of Pope John Paul II ever since he came into the papacy in 1978.

**Sharpless**

But it’s also gone over into conservative evangelicals?

**Ravenholt**

Some, but that is largely led by the Catholic leadership. Like Pat Robertson.

**Sharpless**

Pat Robertson?

**Ravenholt**

Pat Robertson. You know, what was it, the moral—

**Sharpless**

The moral majority?
Ravenholt  This was funded and instigated, in large measure, by the Catholic authorities. They use some Protestants, or other religions, as sort of a heat shield—front for the R.C. church. But, if it had not been for the fierce antiabortion actions of the Catholic Church, it really wouldn’t have amounted to very much. Because they are not sufficiently organized. The U.S. the Supreme Court decree legalizing abortion generally in the United States was January 22, 1973.

Sharpless  Right. Roe v. Wade.

Ravenholt  We thought then that this whole controversy concerning abortion would recede. But, indeed, it did not, because the Catholics saw it as a mortal threat to the papacy and the Roman Catholic Church, because it was specifically contrary to the dogma of the Vatican. So, they got themselves organized and they had meetings. And, one reason I knew some of this was that my associate director, Randy Backlund, his wife was Catholic, and his brother-in-law—a lawyer from San Francisco—began coming to Washington, repeatedly, every month or two because they gathered lawyers and others to create their own action counter to this Supreme Court decree. And, out of this came, in 1975, the Bishops’ Pastoral Plan for Pro-Life Activities.

Sharpless  You’re looking at this book by Mumford, right?

Ravenholt  This was their political plan of action. And, Stephen Mumford, indeed, has researched this very well over the years, and published this—The Life and Death of NSSM 200.

Sharpless  Hm-hm.

Ravenholt  And, in there is the documentation for much of this, and, indeed, they
created a very full blueprint, or plan of action, and moved to organize each of the congressional districts to strengthen the whole Catholic control of political action dealing with—especially the issue of birth control in the United States.

Sharpless  And yet, I keep thinking, the people that I know, who are anti-choice, truly believe that it’s about saving little humans—

Ravenholt  Oh—

Sharpless  —with little tiny hands and little tiny feet.

Ravenholt  —the answer to that, indeed, as far as my own understanding, and belief is that, abortion, of course, is a natural concomitant of human reproduction. And, ordinarily, more than half of all pregnancy terminations are done by God—by nature’s God. You know, faults in the embryology of this or that pregnancy, result in a natural expulsion of the conceptus as a more efficient kind of human reproduction. So, you know, if there was something intrinsically wrong with all this, why would God be doing so many of them?m. So, that’s the first thing I would say. The second is that I believe that there should be complete reproductive freedom, so that people need not reproduce unless they want to, and they should not want to unless they can care for the offspring. So, I certainly believe the high moral ground goes to those who enable women and couples to limit their reproduction to that which is wanted and will be well-cared for. And that has a greater good than a stance against any pregnancy termination.

Sharpless  What if—but the Helms Amendment had a great impact, then, on your work.
Ravenholt  Yes, it did. And, not only on mine, but on the work of all the grantees that we were funding, because they were no longer able to receive monies from us that they could work with. And then, after a while—especially under the Reagan Administration, and that one conference they had in Latin America—

Sharpless  Hm-hm.

Ravenholt  Where was it?

Sharpless  Mexico City?

Ravenholt  Mexico City policy where they moved to prevent any organization receiving monies from the United States and AID to—they could not receive money if they were, in any way, doing abortions, or supporting abortions, even if it were not with the monies from the U.S. So, this interrupted the support of—the AID support of IPPF and the United Nations Fund for Population Activities and so forth. So, it’s been a very pervasive way of limiting the effectiveness of the birth control programs around the world, yes.

Sharpless  Now, I was thinking, when I was interviewing Roger Rochat a couple of years ago, who worked at CDC, he told me, you know, that basically, if women can’t have access to safe abortions, they’re going to use roots and twigs.

Ravenholt  When they get desperate they will use very dangerous methods of seeking to terminate an unwanted pregnancy. So, there will be a lot of women who will die as a consequence of the non-availability of safe and effective pregnancy termination. So, there again, the use of Cytotec or RU-486, and so on, is important, because that can be done without a physician, necessarily.
Now, in those early days you did a great job of building partnerships with other agencies. I’m just looking down the list: United Nations.

Yes, we created many organizations. I was involved in the creation of the United Nations Fund for Population Activities in ’68, ’69, when we got monies. Then, particularly with the leadership of General William Draper and Phil Claxton of the State Department, we created the UNFPA. When the World Health Organization was formed, just after World War II, in 1946, the first head of WHO, Dr. Brock Chisholm, moved to include family planning as an important part of the program of the World Health Organization. But, this alarmed, again, the Vatican forces, and they, through Italy and Ireland and Belgium, took effective action to delete any family planning program from WHO, to the point where, as I understand it, there came a face-off when they made it clear that if Brock Chisholm insisted on having family planning as part of the WHO program, they would see to it that there was no WHO. So, they managed by their arm-twisting and whatever to delete that from the WHO program. And, this is why, in the ’50s and ’60s the World Health Organization was useless as far as extending effective family planning (motorboat passes) to the less-developed countries.

And so, in ’68, ’69, it was important to get a multilateral action going, because if it were just the United States pushing birth control, no doubt there would be political reaction to that. General Draper and Phil Claxton took the lead toward creation of the UNFPA, but I was supportive of it. And, of course, they needed money. So, the first year, 1969, we provided 85 percent of the funds for the UNFPA. And during—quite a few years, we were
providing about half the funding for the United Nations Fund for Population Activity. We did recruit other donors to that—European—the Scandinavian countries—Britain, Japan, and so forth, but we were still the mainstay of the UNFPA. Sometimes they’ve done quite good work, but the UN is a remarkable bureaucracy and really has very limited drive capability on anything, because it’s so politicized, and there’s so much overhead for whatever you try and do. And, that was also true in this.

**Sharpless**

What kind of work did you try to accomplish through the UNFPA?

**Ravenholt**

Well, one place where they were helpful—in 1971, I got the idea to create a World Fertility Survey. At that time we were still engaged in the Vietnam War. So many countries were wary of U.S. actions.

**Sharpless**

Let’s talk about it.

**Ravenholt**

As an epidemiologist it never occurred to me that I would run a program that I didn’t attempt to measure whether it was doing what it was supposed to do. Until the WFS, we had only poor data for most of the developing countries—really more guesswork than accurate data. But, there had been, in the United States—there had been surveys of the growth of American families. First, one in 1955, then ’60, ’65, ’70. I was aware of these, and each time a quinquennial survey was published, I would read it, and it was useful in understanding what was happening in the United States. On the tenth of June, 1971, during a little time of reflection that day, it occurred to me that if we could get similar data from—survey data from a large number of less-developed countries, then we would have adequate knowledge of what was going on—whether the programs were working. (motorboat passes) (birds
chirping) And, I was immediately excited with that and managed to persuade others in AID to that—so we went forward. Initially, we thought we might put it in the United Nations Population Division but, with a little more thought, we knew it would never work there. Number one, it would have to undergo all the strictures of the UN system, and you simply couldn’t build a uni-purpose activity in the UN system and expect it to survive very long, because it would be eaten like—by piranhas in a tropical body of water. Then, I had very good relations with key UNFPA personnel, especially Raphael Salas, the director and Dr. Nafis Sadik, the deputy director of the UNFPA. And, quickly got their assent that they would also put monies into developing a World Fertility Survey. We researched where to put a WFS, and decided the best action-focus would probably be the International Statistical Institute, which was headquartered at The Hague, in Holland. but which had a broad representation in the world and was a well-respected institution. And so, we negotiated with them, and indeed, they decided they’d like to do that. Then, where to have the activity—we wanted an English-speaking focus of it, so we chose London as the ideal place to have it. Again, we were in the Vietnam War, and we wanted to avoid too heavy a hand from the U.S., because surveys of fertility and birth control would inherently be quite sensitive, and no doubt there would be reactions if we were doing it ourselves, at that time. So, we did create it in London, and got an able statistician, Sir Maurice Kendall, to head that. We had blue-ribbon committees—technical committees and an operations program committee, of which I remained a member during those years. There were many
associated problems that had to be worked out, but it was worked out, and we put $50 million into this over a dozen years. Then in 1984, USAID negotiated so as to place the WFS headquarters in the USA. So, the DHS survey was created. The focus for that was in Maryland, and that has continued until the present time. And altogether, USAID has put more than a quarter billion dollars into the collection of health and fertility data through the World Fertility Survey and the follow-on survey instruments. This has made a huge difference, so that we now have good data for virtually all the countries in the less-developed world. And, that has measured the effectiveness of programs, and so that’s well-known now.

Sharpless
Now, when the first data started coming in, what surprises were there in that?

Ravenholt
Well, there weren’t any large surprises, as far as I was concerned, because I was quite aware that when a strong family planning program was implemented, ordinarily fertility would rapidly decrease. But, it validated that. The other thing was that early on in ’67, ’68, as an epidemiologist, I did spot surveys—cluster sample surveys, when I went to various countries, like India or El Salvador—half a dozen or more countries—just ask women in maternity wards or in crowded streets, and so forth, their age, how many children they’d had, how many they’d lost, and whether they wished to be pregnant again, soon or ever. And, from such (motorboat passes) cluster sample surveys—spot surveys, in a variety of less-developed countries, I was aware that about half the women in less-developed countries didn’t want any more children. Many of them were overloaded of course, already. In the less-
developed world—not only is having a large number of children an enormous amount of work, but it’s dangerous for the health of the mother in places like Bangladesh and Africa. Ordinarily, maternal mortality rates are at least 1 percent. In other words, with a thousand births, one would expect ten women would die from complications of pregnancy and childbirth. So, it’s dangerous work, and if one has ten children, the woman may have a 10 percent chance of dying of childbearing. So, I was aware that there was great motivation throughout the less-developed world for control of fertility, but a lot of academicians in the U.S. and Europe did not think thus. But most physicians—most people who worked in clinical medicine and public health would agree with me. They were aware that there was a lot of motivation for birth control in the United States, or wherever. But, a lot of academicians and economists, thought (coughs) people wouldn’t really become interested in controlling their fertility until they got educated and wealthier.

Sharpless

I’m going to change the tape.

Tape 1 ends; tape 2, side 1, begins.

Sharpless

This is the second tape with Reimert Ravenholt on July 20, interview number four. Go ahead. You thought—the academicians said that women wouldn’t (speaking at same time) participate until they were educated.

Ravenholt

Yeah, the politicians—academicians, and especially economists, in other words, those who had no particular experience with women and pregnancy and childbirth and contraception—had these notions that you first must educate them and increase their wealth before they’d be interested in birth control, which simply was not true. The good thing about the World Fertility
Survey—as soon as the data became available, it documented thoroughly that indeed, it was true that about half the women didn’t want any more children. That pattern has continued. So, there are plenty of people wanting to control their fertility. The difficulty, ordinarily, has been in getting the services—the technologies immediately available to them. And that’s what we certainly directed our efforts to, was to improve the technologies and get them to them.

**Sharpless**

Now, one thing I’ve often wondered, if people—politicians and such, haven’t opposed family planning—because it is a women’s issue, which they don’t take seriously. How much were you able to argue from a world population standpoint? What was going on—I mean, what did these surveys show was going on with the world population that needed attention?

**Ravenholt**

Well, of course, the rapid growth in population. I can just very briefly run through that. You know, it took from beginning of time until 1830 or ’50 before there were one billion people in the world. And then it took from 1830 to 1930 until there were two billion people. And then it only took from 1930 to 1965 to reach three billion—which is about where it was at when I went to Washington in ’66. It was three billion world population. The less-developed world, of course, was adding people very rapidly because the death rates had fallen, but not the birth rates. So it was a matter of really moving to change that as rapidly as possible. And this we did in many countries, but not in all countries. China, coming on stream with its fourth five-year plan (helicopters passes) in 1970—they launched an analogous program aimed especially at making the effective means of birth control,
including abortion, available to their population. And that resulted in very rapid decrease in fertility there. I was in Lahore, Pakistan, for an IPPF meeting in 1973, and it happened that the minister of health and family planning for the People’s Republic of China, communist China, was at this conference, too. And, through an interpreter, I asked her, “What is the birthrate for China?” And she answered without hesitation, that it was about twenty-five births per thousand population (plane passes), and falling rapidly. Well, that was a very important piece of information, as far as I was concerned, because they’d only had several years of really strong family planning. And, China was about 22 percent of the world population of 4 billion by 1975. From that time on, I was aware that the birthrate was falling rapidly in China. With the nature of their program, I was confident that it would have to fall. I was in China, finally, in 1978, for a month, in a group of twenty American doctors. We were guests of the People’s Republic of China, and China was just beginning to open up. They took us around during a month there, and showed us many things. And, I had a chance to chat with the leaders of the various family planning activities in Guangdong province, in Sichuan, and Peking, and so forth. I published in the Washington Post, upon returning from there—one page that tells my findings. Clearly, they were moving very rapidly to bring their fertility under control. In ’78, they were just moving to emphasize one child families. In most places around the world, if women and couples have full control of their fertility, on the average, most of them want two children. To go from two children, to one child, (motorboat passes) in some places, in cities, or in difficult
circumstances, like in the communist countries, they will opt for just one child. Currently, now, in 2002, the latest data I have indicates that Hong Kong has the lowest birthrate—a birthrate of seven live births per thousand population—which is about equal to an average of one child per family.

Sharpless  
Um-hm.

Ravenholt  
Under intense urban circumstances—or intense economic pressure, like in the communist countries, when abortion and other means are available, indeed, they will get down closer to one child per family. But, if living fairly well, and with full freedom, most couples, on the average will want about two children. So, that’s the situation. China has moved—their birthrate, now, in 2002, is a birth rate of thirteen, ours is fourteen. The whole continent of Europe has a birth rate of only ten. I would expect China’s would be ten or lower, within the next couple of years. It moves that surely and that swiftly, once there is universal reproductive freedom and all women and couples, have access to effective means of contraception and pregnancy termination. Surely, it will pattern out like that.

Sharpless  
To what extent were your opponents arguing that the United States didn’t need to be concerned about the population? Did anybody take that position?

Ravenholt  
Oh, of course, the Pastoral Plan for Pro-Life Activities—strong Catholic opposition, by the leadership.

Sharpless  
Did they just not believe in overpopulation?

Ravenholt  
The Pope claims to be adamantly opposed to birth control, so the Catholic leadership—the bishops and quite a few of the priests, go along with whatever the Pope says. But in the U.S., I would say that more than 90
percent of Catholics practice birth control, sooner or later. It’s very rare that you see any twelve-child families, anymore—

Sharpless  That’s right.

Ravenholt —or ten-child families, or eight-child families. Even if a young Catholic couple begins, perhaps thinking they want that, by the time they get three or four or five, they discover it’s very expensive and a lot of hard work.

Sharpless  Yeah. The people of my generation who started child-bearing in the early ’80s are not having those big families.

Ravenholt  No.

Sharpless  They came out of them, but they don’t have them.

Ravenholt  Right. Oh, yes. My mother had ten, the first one died in infancy, but there the nine of us, and when I was born, she had five children under the age of six on the farm. An, indescribable amount of work and constant work and attention and so forth—most people would not be able to do that or if they did—their health would not sustain them in it.

Sharpless  What else about the World Fertility Surveys?

Ravenholt  Well, I had a tussle early on—as a member of the Program Steering Committee—the overall governing body. We had a blue-ribbon committee of really top statistician/demographers in the world on this. But, as they started working—doing surveys—they started asking people questions about fertility and so on and so forth. The economists would ask how big is the house, how many rooms, is there water, da-da, da-da, da-da. Quite a lot of economic information, but they avoided, early on, ascertaining the actual availability of effective means of fertility control: Are there some oral
contraceptives (tap) in the house? Are there any condoms (tap) in the house? Where, if you wanted a tubal ligation, could you get it? Or, if you want an abortion, where can you get it? You know, the actual availability of effective means of fertility control was something they avoided asking. Well, we'd already had enough of those kinds of surveys—what we call KAP surveys—Knowledge, Attitude, and Practice—but without knowing the availability of effective means, those surveys were meaningless as far as answering questions of, what’s happening, and why it’s happening. So, at a certain point, at one of our annual major conferences on that—well, I started telling Sir Maurice Kendall to be sure and put in questions on the availability of the various means of fertility control. But they evaded this for a couple of years. But then, I really did get exasperated, so I issued the order that they could do as they pleased, but AID (knocking as he speaks) would not support any surveys that did not ascertain the availability of the effective means of fertility control. That necessitated them, indeed, revamping their surveys. They had to get some new personnel to do that. Dr. German Rodriguez, a Chilean—they recruited, and he did a good job of modifying the questionnaires in that fashion. And so, we finally got some more useful surveys.

But because the World Fertility Survey was resistant and slow to do this, we decided we needed something more rapid to get the information we needed on program effectiveness, so we made contracts with the CDC for Contraceptive Prevalence Surveys, going more specifically for what we
needed. Some of the key people at CDC I knew from epidemiological days, like Leo Morris. We got them involved and they went in more utilitarian fashion to get the required data. So, that helped. We got this additionally, but, I guess we still needed the WFS because it brought along the whole statistical, economic, academic world. But, from a public health, epidemiological point of view, one could do it more simply and cheaply.

Sharpless

How great an achievement were the World Fertility Surveys?

Ravenholt

Well, I was just in Washington, the first week in June. I gave a paper there at the National Press Club. There was a conference—“Thirty Years of USAID Effort in the Collection of Population and Health Data.” Because, they say USAID, beginning with the WFS and continuing on with derivative surveys, has been the world leader in getting the data needed to know just what was going on throughout. It started with the World Fertility Survey. We got USAID sufficiently well-started, that they have continued to provide the monies to be the world leader in getting the data from the less-developed world that’s needed to actually run not only birth control programs, but any kind of a health program, and also many development programs.

Sharpless

Hm. What else about the United Nations work?

Ravenholt

Pardon?

Sharpless

What else about the work with the United Nations?

Ravenholt

Well, they’d been involved in endless meetings, conferences, and communications. As I say, they participated in the WFS. But the Demographic Health Survey that’s operated since 1985 or so, has been mainly funded by USAID. The leadership at UNFPA has become
increasingly political and less intensely focused on the actual technical programmatic needs of an effective birth control program. Jimmy Carter sold out to the Catholic bishops, and likewise Reagan and Bush. So that the White House became, instead of supportive of larger and more effective birth control programs, became negative on it, trying to satisfy the Vatican, rather than the needs of programs. The UNFPA has continued to some extent, but has never been as enthusiastic about getting the more effective means actually available, out there. Another initiative we took beginning about 1970 was the use of the laparoscope for doing tubal ligation as an outpatient procedure. Dr. Robert Wheeless came to my office in Washington, there in about August of 1970, and showed me his laparoscope and what he was doing, and indicating that this could be done as an outpatient procedure. We quickly gathered some key people in the Office of Population to consider this, and then we proceeded to provide support. First, some to Robert Wheeless. Then we took many actions to enable this new technology to become widely available. We set up the Johns Hopkins Program for International Education in Gynecology and Obstetrics, at Baltimore, and at several other university centers. There was a long-standing Association for Voluntary Sterilization. Some stalwart people, beginning back in the ’30s, had developed an Association for Voluntary Sterilization, but mainly early on this was vasectomy. But then, in the ’30s they’d begun to do tubal ligation, surgically—the Pomeroy Technique. Anyway, AVS was a small organization. Somewhere in there, maybe it was ’71, Dr. John Cutler and Dr. Betty Connell came to see me to see if we would be willing to provide support for
them to organize a world voluntary sterilization conference. I knew they were good people, and I listened a bit and said, Well, yeah, we would be—but we want to move more strongly in this because of the potential of it. (motorboat passes) They asked for $50,000, but we ended up making a grant to them of about $850,000, for a considerable set of activities, including an initial conference on voluntary sterilization, which we set up in Geneva, in collaboration with UNFPA, making Dr. Nafis Sadik Chairman of the Conference. We’d been trying to get the World Health Organization (knocking as he speaks) to provide support for something, and they were very evasive—wouldn’t do this and that. Somewhat deliberately, I decided we’d put that conference right in Geneva, at the Intercontinental Hotel, which is very close to WHO. And we invited, of course, the WHO principals to participate. We had a good conference with people from all around the world. And, during the course of it, some of these WHO doctors came. They were surprised that everybody was speaking so freely of voluntary sterilization. Because, in Europe, growing out of World War II and the Nazis, there was a strong aura that sterilization was bad. Indeed, several years later, when we had a second world AVS conference in Tunis, I was going to Tunis to speak at that, and I stopped in Paris, where I met with a woman who was the director of maternal and child health for the French government. I particularly brought to her attention the things we were doing now with laparoscopic sterilization, and I remember mentioning that I thought it would soon become a popular thing, even in France. She said, “Oh, Dr. Ravenholt, This’ll never be done in France.” (laughs) But, of course
it has been done there and has become very popular everywhere it’s been done. Actually, that conference in ’73 broke a lot of new ground, opening discussion of tubal ligation and the fact that we were providing support through the AVS. We created an International Project for the Association for Voluntary Sterilization with this first million dollar grant. And, then we also simplified the equipment. Dr. Wheeless, along with his laparoscope, had a large carbon dioxide container. When doing laparoscopic tubal ligation, he was using electrocautery and was afraid of using electrocautery in the abdomen with ordinary air because of possibility of explosion. We took action to simplify everything. We provided support for the development of a tubal band and a tubal clip so that there would not be any need for using electrocautery in the abdomen, then we dispensed with the big CO₂ thing, which was important, especially in the less-developed world.

**Sharpless**

A CO₂ tube wouldn’t be real portable.

**Ravenholt**

Right, it was very cumbersome, especially when going out into the boondocks. So, that went forward. We got the Yoon Band and the Hulka Clip—two ways, and we got a simplified laparoscope equipment we called the laprocator. And of course, we got production of this from American manufactory. We were buying these units, but they were necessarily expensive because of the optics and everything involved in the laparoscope—we were paying $4000 a unit. From the less-developed countries we brought some thousands of selected physicians—gynecologists, to Johns Hopkins, and several other universities for intensive training for a few weeks, and then provided them with the equipment to go back and get
started. This went forward very rapidly in those several years. I remember, in ’73, when we had everything working, we then decided to move as fast as we could in Latin America. And we invited all the chairmen of departments of ob-gyn from all of Latin America to come to (knocking) Baltimore. And 143 came to the June 1973 conference.

Sharpless
So, you were working through all the chairs of OB-GYN in Latin America?

Ravenholt
Well, yes. In my role as Director of the Office of Population, I was really in a preferential position to make things happen. I decided to push the relevant buttons. (knocking as he speaks) We talked about getting some OB-GYN people from Latin America, and I suggested we invite all the chairmen of all the departments of OB-GYN from all of Latin America, to Baltimore. We did this, and in June of ’73, 143 came there. Because it was quite irresistible, all these top professors getting an invitation, with travel is paid, and per diem, and they could come to the mecca of OB-GYN, which Johns Hopkins was, for three weeks. All this was quite irresistible. So 143 Latin American OB-GYN leaders came to Baltimore in June. I went up there to speak to them. Dr. Ted King, and others did it up very well. I remember an evening cruise on a ship in the Chesapeake Bay, dinner and so forth. And, we went by Fort McHenry, where the “Star-Spangled Banner” was written by Francis Scott Key while he was a prisoner of the British and watching the bombs explode. Following that, the many professors went home, and Johns Hopkins send out expert consultants to bring the actual laprocator units and see that it was set up and functioning properly, and help them with the early cases, and so forth. So, it was very thoroughly done.
Okay, let me turn the tape.

*Tape 2, side 1, ends; side 2 begins.*

Okay, go ahead. You were talking about the importance of the laparoscopic program.

Yes. I do feel enduring satisfaction that, when the occasion presented itself, there beginning in 1970, and we were favorably placed to make a difference, we really did make a huge difference in the evolution and extension of laparoscopic sterilization; and also minilap sterilization tubal ligation, in the world. With the training of thousands of physicians from all over the less-developed world, and some of the developed countries, and with improved technology and supplying them with the technology, and with support (motorboat passes) for tubal ligation clinical work, in a hundred or so countries, training in the thousands, and equipment in the thousands. I had an experience in 1976. at an IPPF family planning meeting in Guadalajara, Mexico. While I was there, I was invited to see a gynecologist who had been trained at Johns Hopkins in laparoscopic sterilization. I went to see him operate one forenoon, and he and two nurses, while I was there, did tubal ligations on seventeen women. This really got me thinking of what an enormous contribution this laparoscopic sterilization was making to more effective birth control and development. Because tubal ligation for seventeen women, on average, depending somewhat upon age and other things, but on the average we figured that a sterilization would prevent at least two births. So, the operation of this one clinic—just one forenoon, probably prevented thirty-four births. Well, thirty-four births—thirty-four
children, that’s one classroom of children. So, by the operation of this one clinic, it prevented the need for one teacher and one classroom, plus all the other costs of childcare. And, coming back from there, with the help of Carl Hemmer and a few others, I did an analysis of child-development costs.

(Sharpless coughs) How much does it cost to raise a child from birth to independence? We used several countries, but I remember particularly, Bangladesh, where the per capita GNP—Gross National Product—was only about one hundred dollars. As we worked through this, we discovered that, even in Bangladesh, it cost about one thousand dollars to raise a child from birth to independence. More than half of which went for food. And then, we did it for a number of other countries, and it works out roughly that way—that it costs about ten times per capita GNP to raise a child. So, if a country’s got a per capita GNP of four hundred dollars, it really costs about four thousand dollars. And of course, if it’s the U.S. with a per capita GNP of about $25,000, then that’s a quarter of a million dollars to raise a child.

Anyway, during the next week or two, I worked this out and wrote it up. And, it happened that the minister of public health and family planning for Bangladesh visited Washington, and the State Department and AID. And when we were together, I gave him a copy of the memo that I had written. Several weeks later I got a telegram from him in Bangladesh, requesting all the equipment needed for them to launch a tubal ligation program. For Bangladesh, we decided to go with a simpler technology—what we called mini-lap, not the laparoscope, which is inherently, of course, not only expensive, but requires an extra measure of clinical training for it, and
maintenance for it’s use. We decided to go with mini-lap, a simplified technique of tubal ligation, that we’d also helped develop. And, I take it as a matter of pride that from the time we got the cable from the minister of health in Bangladesh, until we delivered all the equipment needed for them to launch a program, we did it within one month.

**Sharpless**

Wow.

**Ravenholt**

Some hundreds of thousands of dollars worth of equipment, actually delivered there. We were at that state where (knocking as he speaks) we had so many keys on the piano that (motorboat passes) we could play some very good tunes. They immediately went to work and put into place, in Bangladesh, a tubal ligation program. And, in that first year, they did 76,000 tubal ligations. And, thinking back to Guadalajara, if each of those prevented at least two children, we’re talking about 150,000 births prevented. Thus it went around the world. Another beauty of the tubal ligation is, it works so well that women would pay as much as they could, and walk as far as they could to get it. We did this in camp settings in Nepal, and women would walk down for several days from the mountains to a camp setting where tubal ligation was offered.

**Sharpless**

How did they know it was being offered?

**Ravenholt**

Well, they got the word out. Dr. Kanti Giri was a woman gynecologist-obstetrician who received training at Johns Hopkins and set up a camp in one of the valleys there in Bangladesh. She’d expected some response, but was somewhat overwhelmed when more than two hundred women showed up, wanting this. During that week she wasn’t able to do all two hundred.
They had to schedule a follow-up clinic to care for all the women.

**Sharpless**

Hm.

**Ravenholt**

After a while, under favorable circumstances, she served seventy women in a day. So, the word got out, and soon it was word of mouth from satisfied women, and their friends and relatives and neighbors, coming for this.

(motorboat passes) So, once we got trained physicians into place, in these countries, with laparoscopic and mini-lap equipment, then it was considerably self-supporting. And, some of these really got it going. India was a case in point. Early on, India, under Indira Gandhi, her son Sanjay was in charge of the sterilization program. At that time, it was male sterilization—vasectomy. And, the demand for vasectomy was never intrinsically very strong. They were male, and they didn’t get pregnant. It was a secondary way of getting protection for the women. And, Sanjay Gandhi cranked that up and put pressure on until in some states there were coercive aspects. That backfired very badly for the Indian program so that it went kerplunk. But we trained dozens of Indian gynecologists to do laproscopic tubal ligation, for which there was soon great demand. You didn’t have to coerce a woman into it. This moved. And some of these gynecologists who were brought out for training went back and really went to work and systematized this. And the last I heard, the record for number of tubal ligations done in a day by one surgical team was in India. As I recollect, it was about 600 that one surgical team had done. Of course, they would have done it with sort of an assembly line type of arrangement. But, sterilizations, particularly female sterilization, tubal ligation has become a very important
part of the Indian program. The trouble with India, however, has been that they’ve never been willing to make oral contraceptives generally available to the young women.

**Sharpless** Why not?

**Ravenholt** Well, I think, basically, it’s because they would then behave like young American women, if they did. And, it would upset their traditional arranged marriages, and control of the young women, and so forth. And, no doubt, it would have some effects like that. But, the resistance of India to make it available has been extraordinary. As soon as we got the money, in 1968, we made it a point to send a million and a half cycles of oral contraceptives to India, so they could get started. We offered them an unlimited supply of free oral contraceptives. We were paying only fifteen cents a monthly cycle. They got started, but after a year and a half or so, there came a spate of articles in the American and British medical journals that oral contraceptives cause some thromboembolism. Then Senator Gaylord Nelson held hearings on the Pill, and invited anybody who wanted to piss on the Pill to come and talk about it. (laughs) And, of course, all the criticisms appeared in *The Washington Post* and *The New York Times*, and the next day in *The New Delhi Times*. And, very quickly I got a cable from India saying they didn’t want to use any more oral contraceptives—to take them away. By that time, they’d only used a half million cycles—there were still a million cycles they had not used. I tried to persuade them otherwise, but, no, they didn’t want to use them. We finally had to transship them up to Nepal to get them used.

**Sharpless** Now, how much of that do you think was an excuse, and how much of it
was a genuine concern—

**Ravenholt**

(speaking together) Well, at that time I thought it was just a reaction to the thromboembolism thing, but, subsequently, I realized they were basically against OC use for other reasons. They have never yet made it generally (knock on table) available to the young women.

**Sharpless**

And the dangers, as you pointed out, from childbirth are much greater than—

**Ravenholt**

(speaking together) Oh well, it was a minor danger from thromboembolism in the U.S. or Britain. OC use was surely much, much safer than smoking. Anyway, it was a minor thing, here. And, actually, we never encountered any problem in the LDCs.

**Sharpless**

LDCs?

**Ravenholt**

Less Developed Countries.

**Sharpless**

Oh, I’m sorry. Yes. Sure.

**Ravenholt**

I thought then maybe it was because in the U.S. we’ve got many women fairly sedentary and smoking. Many are overweight, and so forth, so that’s one thing. Whereas, in these less-developed countries, they are thin and hungry and active. I thought the difference was probably largely due to that. But, in more recent years, it has been learned that Caucasians have a genetic “factor 8,” susceptibility to thromboembolism. This research was done in Holland. There are people, in Europe, Caucasians who have a genetic susceptibility to thromboembolism that none of the other racial groups have. I did not know it then, but indeed, there’s almost no thromboembolism in the Indian and Indonesian and Chinese societies. But anyway, India has
continued to avoid making contraceptives generally available to young
women. But for young women in their teens or early twenties, there really
isn’t any good substitute for oral contraceptives—if she wishes to control her
fertility at that age. So, in India, despite a lot of tubal ligation—their birth
erate is now still about twenty-six births per thousand population. (motorboat
passes) Just about twice China’s—thirteen per thousand. And, India’s
population has gone past a billion and after a while will exceed China’s. That
could have been prevented had they been willing to make oral contraceptives
fully available. So, often there are all kinds of difficulties one has to
overcome.

**Sharpless**  
And other work with the United Nations?

**Ravenholt**  
Well, World Fertility Survey was one. Menstrual regulation kits is another.
At that stage, I managed to get some help from Dr. Sadik and the United
Nations. For a while, they were helpful in such ways. But subsequently, as
political pressure against any kind of abortion increased, they stopped doing
that. And, generally they have been less concerned about getting the
(motorboat passes) best technologies to the needy people. The 1994 Cairo
Conference was chaired by Dr. Nafis Sadik and dominated by a politically
active lesbian faction, actually opposed to birth control per se. They managed
to greatly broaden the definition of what Title Ten population funds could
be used for; changing this so as to apply them for general “reproductive
health.” Thus greatly decreasing the monies actually spent on birth control.
Unfortunately, without effective birth control, the cost needs of
“reproductive health” are unending. Once you get into trying to provide total
clinical care for reproductive health, you're into vastly greater sums. And, once you make that equally competitive for the use of population funds, then most of those funds go for clinical care. And there's no longer any great push for birth control, per se. And, that's happened, especially in the UN system and in various other organizations—especially since 1994 and the Cairo Conference. While I was directing the program at USAID, we were always battling off would-be boarders, who wanted money for many other purposes. They always wanted our earmarked funds for their purposes. And, I had to constantly resist that, because even with $150 million a year, this works out to be something like five cents per woman of reproductive age in the LDCs. We didn't have enough money for all the birth control that needed to be done. And, as far as I was concerned, this was the most important “reproductive health” action, by far. If interested in development, and you drop the birthrate, then development will occur. Without dropping the birthrate, you won't have development. Africa now has seven hundred million population, with forty births per one thousand population, for twenty-eight million births yearly. With eleven million deaths, the population growth is seventeen million, or 2.4 percent. And because child development costs are roughly ten times the per capita GNP of four hundred dollars—hence $4000 -- the excess fertility demands are roughly sixty-eight billion dollars annually, far more than current total foreign assistance.

**Sharpless** Doing calculations, here.

**Ravenholt** The total foreign assistance for Africa, the last I remember hearing, was about $20 billion, from Europe and the United States. So, of course, Africa is
in a most horrendous situation. They’re already at the edge of their food supply and everything else, and now still adding seventeen million population annually, with no commensurate increase in productivity. And, of course, this has been going on for years, so now there are killing fields in dozens of African countries. They’re killing one another like in Rwanda, when it came to a head, the Hutus and Tutsis, killing one another a million or more. This again, was a result of the religious misdirection. Rwanda is 95 percent Catholic, and opposed to birth control. If they don’t have birth control, but still have death control, the result is the killing fields. This has happened in dozens of African countries. I really am sad that we were unable to continue the birth control program we had rolling in the seventies. We could have vastly changed the population dynamics of Africa, but now the bulk of that work still remains to be done.

**Sharpless**  
Hm. What about your work with the International Planned Parenthood Federation?

**Ravenholt**  
When we began, the International Planned Parenthood Federation was surely the leading world organization in support of family planning. And, General William Draper was a particular ally of IPPF. He was their fiscal vice-president, or manager. As soon as we got money, he indeed leaned on me to make monies available to IPPF, which I would have done anyway. So, in fiscal ’68—in ’68 we made $3.5 million of the first $35 million we had available to the IPPF.

**Sharpless**  
To do what?

**Ravenholt**  
To support burgeoning family planning activity in many countries, which
they’d been doing with very limited resources. We gave them an unlimited
draw upon oral contraceptives and other contraceptives. So, they could really
move with much greater strength throughout the less-developed world. And,
we continued to provide a great deal of support.

**Sharpless**

I’m gonna change the tape while you’re looking.

**Ravenholt**

Okay.

_Tape 2 ends; tape 3, side 1, begins._

**Sharpless**

This is the third tape of the fourth interview with Dr. Reimert Ravenholt on
July the twentieth, 2002. Okay, did you find it?

**Ravenholt**

Yes, with respect to the International Planned Parenthood Federation,
headquartered in London. We made the first grant of $3.5 million to them in
June of 1968 [$2.7 million from central funds, and $800,000 from the
geographic bureaus], and for a number of years we provided 40 percent of
IPPF funds (motorboat passes), and through fiscal 1979, USAID had
provided a total of $126 million to the IPPF. So, we had hugely strengthened
their action around the world. And, in general, we got a lot of bang for the
buck there, because they had strong volunteer organizations that we were
able to activate. We were able to provide them with an abundant supply of
contraceptives, and so forth.

**Sharpless**

Okay.

**Ravenholt**

And, I participated in quite a few conferences. The first one was in April of
1967. The IPPF had a world conference in Santiago, Chile, and that was my
first major conference. We had not yet gotten money but were already aware
that we probably would get some earmarked funds. And I made a
commitment while there that when we did get funding we would provide about $2.7 million to them. So, they geared up and became very active. And, we had repeated conferences, here and there, around the world.

Hm. What about—anything else about IPPF?
No, let it go at that. At least for now.
Okay. Pathfinder?
The Pathfinder Fund? I became aware of the Pathfinder Fund soon after I got to AID in 1966. And, then in July of ’66, Dr. Clarence Gamble, the president and founder and chief supporter and director of Pathfinder Fund—he and his daughter, Sarah, visited me at the State Department in July. I did not know it, then, but he was into his terminal illness, and died before the end of the year. But, before dying, he turned over the leadership of the Pathfinder Fund to Dr. Elton Kessel, a public health officer who had been health officer for Portland, Oregon before that. He took over and soon came to me seeking increased support. We did not yet have funds, but in 1968 USAID provided $2.5 million to the Pathfinder Fund. Elton Kessel was a very hard-working, very fast-charging director. We provided support then, and have ever since. Let’s see. How much is the total, here? Pathfinder Funds. Oh, yeah. Through fiscal ’79 USAID had provided $50 million to the Pathfinder Fund.
And what kind of things were they using it for?
Clarence Gamble was sort of a Johnny Appleseed (who used to go around Ohio and the Midwest planting fruit trees). And, Clarence Gamble was a pioneer—a promoter of birth control, who traveled the world starting
incipient birth control projects. In a new country, he gathered like-minded
women to a coffee party or tea or luncheon and inspired them to develop
birth control services. He'd come in and provide a little financial support,
and especially some contraceptives—IUDs and so forth. So, he was
responsible for initiating organized family planning action in quite a few of
the African countries and numbers of other countries. Very active—a very
effective pioneer in the field. When we got involved with Dr. Kessel—we
greatly expanded their capabilities, providing all the oral contraceptives and
IUDs they could use and other equipment. We also developed a research
program at Pathfinder—especially aimed at improving the IUDs. Dr.
Clarence Gamble’s eldest son, Dick, was a demographer, and would have
been the natural heir to lead the Pathfinder Fund. But, Dick had such
limitations that his father did not make him the Pathfinder Fund leader; he
gave it to Elton Kessel. But as the Pathfinder Fund rapidly burgeoned, with
millions from USAID, the Chair of the Board was Clarence Gamble’s
widow, who became the director of the R.F. funding program. This resulted
in a tedious action to sideline Dr. Elton Kessel – made him President, and
put somebody else in as CEO for a year. Then they did a worldwide search
for the best person to head the Pathfinder Fund, and after a tedious search,
headed by Dr. Snyder, Dean of the School of Public Health, at Harvard, they
came to the extraordinary conclusion that right there, in their own backyard,
was the best person: Dick Gamble. But he demonstrated his incapacity
within a year or two, and then they got other leadership. Kessel was not
interested in a sideline kind of position. And, that’s when we put our heads
together and created the International Fertility Research Program. Because I was aware we needed to be able to do rapid operations research to test new technology definitively.

**Sharpless**

And, did you bring Dr. Kessel onboard at that point?

**Ravenholt**

Dr. Moye Freyman was head of the population program at the University of North Carolina. And, he’d been in India, with the Ford Foundation, and was a very dedicated family planning person. So, Kessel moved down there and we created the International Fertility Research Program—IFRP—in the University of North Carolina. The IFRP operated in UNC for about five years, then we helped them gain an independent existence, which facilitated more rapid research action.

**Sharpless**

What else were they researching besides the IUD?

**Ravenholt**

Well, as I mentioned, when the Menstrual Regulation equipment became available in the summer of ’73, we got rapid (knocking on table) validation of the effectiveness and safety of that through the then-IFRP system of collaborating investigators. They helped also with the laprocator and some studies on oral contraceptives, and lots of things like that. They were very effective until political Catholic pressures forced Kessel out. The IFRP staggered a couple years, until I helped get Dr. Malcolm Potts in as director. He was a very strong proponent of birth control and a very able researcher, British by background. And, after a while, again because of the political/religious pressure and so forth, the IFRP became FHI—Family Health International. And, they began to do clinical trials research for a number of the drug companies. So, they’ve continued with that, but their
most important work was done in the early years with IUDs, OCs, MR kits, and laproscopic studies.

**Sharpless**

And, working with the technology.

**Ravenholt**

(ice clanging in a glass) Yep.

**Sharpless**

Okay. What about the Population Council?

**Ravenholt**

Population Council. (motorboat passes) Started by John D. Rockefeller, III, a “true believer” in the importance of birth control for social improvement. I forget just when the Population Council was formed, but it was formed with his initiative and his money in New York. In 1963 through ’65, the Population Council became the main supporter of Lippes Loop IUD programs in India and Pakistan. Soon after I joined AID, in the early summer of ’66, I went up to New York and visited the Population Council. The director was Frank Notestein, a very able director. A (air horn) demographer from Princeton University. Soon he was succeeded by Bernard Berelson, a librarian and an able communicator, but inept in choosing main avenues of action. Weak on oral contraceptives and abortion.

**Sharpless**

So, they spent a lot of energy developing that?

**Ravenholt**

We made a grant to them to try and improve birth control in maternal/child health centers, under the care of Dr. Cliff Pease, which should have done something useful, but the research leadership was not adequate for that to become an important kind of activity. But one thing that the Population Council, over the years, did successfully prosecute, was IUD improvement. They managed to develop the Copper T, which at the present time is still probably the most desirable IUD. It's not hugely better than Lippes Loop
(motorboat passes), but it’s somewhat better and has largely replaced the Lippes Loop and a number of other IUDs. But, during the early years, they were, in a sense, anti-pill. They did not make oral contraceptives available, themselves, and when we started making the oral contraceptives available in large numbers, they had a negative cast on that. They claimed that the continuation (air horn) rates were not so good for OCs as for IUDs, and so, they were, in a sense opposed to OCs. The key reason was that they had not put money into buying them, nor using them. And of course, the continuation rate is not necessarily so good with OCs, because they were discontinued every month, during the menses.

Sharpless

Hm-hm.

Ravenholt

And, if a women isn’t positively motivated to use it, she’ll lapse. But, there’s strength in that, because it means that no woman is using OCs who doesn’t want to use OCs. Whereas, with IUDs, as in India and Pakistan, they inserted a lot of IUDs very quickly into women, many of whom quickly wanted to be rid of them. And, that kills the program. Wherever we made OCs abundantly available, a large number of women did want to use them, and did continue to use—and did prevent births. And, that’s still the case. In the U.S., the last I heard, there were about 13 million women using OCs and probably less than one million using IUDs.

Sharpless

Hm-hm. Anything else about the Population Council work? (motorboat passes)

Ravenholt

AID continues to provide money. And, sometimes, they’ve been useful, but the leadership changes and during my years there, I was not fully pleased
with the efficiency of their use of moneys we provided them.

**Sharpless**
Okay. Family Planning International?

**Ravenholt**
Family Planning International Assistance we started *de novo*. Initially through, and then subsequently separated from, the Planned Parenthood Federation of America, but closely associated with them. We needed an organization that could move strongly much like the Pathfinder Fund—without too much bureaucracy and so forth. And, they moved a lot of contraceptives. They were one of the prime movers of oral contraceptives for quite a few years.

**Sharpless**
(ice clanging in a glass) Well. You want to stop it here and we can decide how to proceed?

*end Interview 4*
Interview 5

Sharpless This is July 20, 2002. My name is Rebecca Sharpless and this is the fifth oral
history interview with Dr. Reimert T. Ravenholt. The interview is taking
place at Dr. Ravenholt’s home—3156 East Laurelhurst Drive NE, in Seattle.
And, it’s part of the Population Pioneers Project. Okay, Dr. Ravenholt, we
just had a delightful lunch down on the dock, here on the shores of Lake
Washington.

Ravenholt The weather is beautiful.

Sharpless And it’s a beautiful day here.

Ravenholt I’m glad you got a look at Mount Rainier, in its snow-covered glory.

Sharpless I am, too. But, we talked—right before we broke for lunch, we talked about
the partnerships with non-profit agencies and organizations. And, I wanted
to shift this afternoon, to talking about partnerships with other government
agencies. Now, you mentioned CDC—Centers for Disease Control. Say a
little bit more about your relationship with them—

Ravenholt Well, yes. Because of my own history—being in the Epidemic Intelligence
Service.

Sharpless Yeah, it’s (sound of shades opening) time to open the shades. Go ahead.

Ravenholt Being in the Epidemic Intelligence Service at CDC two years initially—
training and service and indeed being my mentor in getting into
epidemiology was Dr. Alexander Langmuir.

Sharpless Hm-hm.

Ravenholt Chief of the Epidemiology Branch of CDC, and so we had a (airplane
passes) very strong relationship going, ever since that time—’52, ’53. And,
when I went to AID in Population, somewhere along there, Dr. Langmuir was also much interested in the world population problem. And, there came a time there, shortly after I’d gone to USAID, when he had an invitation to go to the Population Council. Sometime in the ’60s, I guess it was. And, he was tempted, but after some thought, didn’t do it. He stayed at CDC as director of the Epidemic Intelligence Service (motorboat passes), and the Epidemiology Division, but he always had a strong interest. So, as we got started and we wanted to do the Contraceptive Prevalence Surveys, I turned to CDC and Dr. Langmuir. And, I guess, Dr. Carl Tyler was then in charge of the Family Planning Evaluation Division. And, so it fell sort of naturally, there. And Leo Morris was a very able statistician, epidemiologist and he ended up heading development of contraceptive prevalence surveys—going leaner, quicker, more directly, to get the fertility and family planning activity and the availability of family planning services and so forth surveys, especially in Latin America. They did quite a few. And they did them for less money and more quickly than the WFS did. So, that was one activity. We also provided moneys for various other things. Dr. Langmuir was a member of the Research Advisory Committee of USAID in the ’70s. So we had contact there. I got on my staff several ex-EIS officers from CDC. So there was always a fair amount of interaction going on with CDC. And, we were providing—not huge amounts, but substantial funds to them for surveys and also evaluative activities.

**Sharpless**

Now, let me ask you this. You’ve alluded to this, but what do you think that you, as an epidemiologist brought to the AID work, that someone not
Ravenholt

Well, I think, really, I had sort of the ideal mix of training and experience. One, I had my medical training. Two, I had my epidemiological training. And three, my public health training—directing a division of the Seattle-King County Health Department for those seven years. And, I'd done quite a lot of research, and also while I was with the University. Population is so central to everything done in epidemiology that I was very familiar with many things even though, in the early years I hadn’t been focusing particularly upon birth control, per se. But, coming at it, then, I brought all the skills that I’d used for investigating many diseases and evaluating many programs. And so, it really came (motorboat passes), I think, very naturally. Going into AID, I didn’t have any real foreknowledge of just what my strategy would be, but that evolved naturally, as a public health program. And, I had enough experience, relevant experience, that I could see where if we really got the family planning services—the contraceptive technology fully available, out there, it would surely make a large difference. For me, it was the obvious way to go. Even though there were academicians who were claiming that family planning would never work, because you had to make them wealthy or educated first. But, I always saw family planning as the central purpose and did that. Now, coming into USAID, I was a physician, so I think many economists in AID did not understand all these non-clinical skills that I had from my training and experience. I was often somewhat bemused when we addressed this or that problem, where the solution seemed quite obvious to me, to find so many different thoughts on what should be done. Because it
never seemed to me mystical or difficult to understand what needed to be done. Doing it, that was difficult. Raising the resources, but I never really had much doubt about what we needed to do. During some years, they became aware that we knew what we were doing. As I say, Dr. Hannah and Maurice Williams became aware that we had clear understanding of what needed to be done and that we were, indeed, dedicated to doing so. So, it worked well. I would just say that it just happened that my mix of training and experience and skills really worked well. One thing that I had going for me was I really didn’t want to leave Seattle, because I enjoyed it so much there. I went back East mainly because of the challenge—this was an exceptional challenge, the world population explosion and revving up a program. But, I surely did not mean to stay back there unless we could really get something done that was worthwhile. And, as a physician, licensed to practice medicine and surgery in the state of Washington, I figured I could always make a living. In the bureaucracy, the economists and others who had come into the government to make it their career, they were much more sensitive to whether every little move or issue and their decisions, either furthered their career or didn’t further their career; or might be a hazard to the career. I had an advantage that when it came eyeball to eyeball on some key issues, and I was absolutely sure we needed that, I’d no intention of stopping until we did get it. And, they would blink first, because, you know, they didn’t want to possibly jeopardize their career. (laughing)

Sharpless  So, you had more autonomy. Is that because you—

Ravenholt  (speaking at same time) I could go at it with an extra measure of vigor and
determination, because if the train did jump the track, as ultimately it did, I could go do something else. Whereas, many of them wouldn't know where they would be going if that was the case. Now, coming back to CDC, yes, we were always in some kind of working relationship with them.

Sharpless

Hm-hm.

Ravenholt

The Census Bureau—

Sharpless

Anything else about the Contraceptive Prevalence Surveys we need to say?

Ravenholt

They’re pretty straightforward. The CDC—Leo Morris and company did good work and they gave us useful fixes on programs—country, fertility, program evolution, and so forth.

Sharpless

Again, any surprises?

Ravenholt

Not really. I don’t remember any real surprises from the Contraception Prevalence Survey findings, no.

Sharpless

Okay.

Ravenholt

It was fairly similar to what we were getting from the World Fertility Survey, but mainly we got it more quickly. I mean it was a good management tool.

Sharpless

Okay.

Ravenholt

Census bureau—U.S. Foreign Assistance Program, which began with the Point Four Program beginning in 1949 under President Truman, became the Economic Cooperation Administration in the ’50s, and so, U.S. foreign assistance was occurring during the ’50s, and then into the ’60s. And, it was sort of natural, as they started to do that, they had to have some data about what was going on in the countries that they were addressing. And, AID did not, at that time, have sufficient resources to do that themselves. And so,
they soon developed a natural relationship with the Census Bureau, which had an abundance of statisticians and demographers. And, the way that’s done in the government is a Participating Agency Service Agreement [PASA]—an agreement between Census and AID, and then certain moneys go to the Census Bureau. They employ some additional people to provide these data to AID. And, that had been going on before I got to AID. While I was there, for some time we got very valuable assistance from certain people at Census. Then, there came a time when our program was running ahead, that some of the supposed help we were getting from Census was not really help. Because family planning programs were forging ahead quite rapidly. And they did not have new data. They simply projected from old data what they thought was happening in these countries. Which was not sensitive to the fact that a family planning program was being rapidly implemented. That’s where, of course, getting the Contraceptive Prevalence Surveys helped close that gap, because then we could validate that the fertility was responding—was falling quite rapidly in response to implementation of program. But, the Census Bureau—there was a time when they were providing guesstimates, indicating that nothing was happening out there. We got that sorted out, after a while. But, in general, over years the Census Bureau provided quite a lot of help, and the Center for—National Center for Health Statistics—it used to be in HHS, as a separate agency. Now it is part of CDC—Centers for Disease Control. The National Office of Vital Statistics, way back in the ’50s, early ’60s—provided the main health statistics. Then, Langmuir and company managed to get that function moved
to CDC, because they needed immediate knowledge of disease occurrence and mortality occurrence for operating the disease control program—the prevention program. And then, CDC started a (air horn sounds) weekly publication—*Morbidity and Mortality Weekly Report*—which they’ve run ever since that time. And in the last decade or so NCHS was made an integral part of CDC, even though it is in Maryland.

**Sharpless**

Um-um.

**Ravenholt**

And, CDC is mainly in Georgia. So—

**Sharpless**

How close—you were involved, of course, with international work. That was your—(speaking at same time)

**Ravenholt**

Right.

**Sharpless**

—your emphasis. How closely did you follow the domestic developments in the United States?

**Ravenholt**

Oh, fairly closely—quite closely. And then, in ’77, Dr. Bill Foege became director of CDC, and we had a very close relationship, because he’d worked for me for several years when he was a medical student. He is an exceptionally able person, in many ways. But, we would often communicate on any number of issues. And when I left USAID, I went to work for Foege and CDC out of its Washington office. So, there was a lot of communication.

**Sharpless**

What I want—well, to go back to the beginning, rather (speaking at same time)—rather than the end.

**Ravenholt**

National Center for Health Statistics?

**Sharpless**

Right. But, that is (speaking at same time)—
Ravenholt: Selecting first countries (speaking at same time) to work in.

Sharpless: Yeah, you had the whole world to work in. How did you decide where you were going to work?

Ravenholt: Oh. Well, that falls out quite naturally—you build your competence, then—

Sharpless: You build your—

Ravenholt: As much competence as you can, and then just where to work depends upon what’s going on. For example, I was aware in ’66, ’67, at that time—India was an obvious place that needed work because they’d had crop failures and they were having starvation and we were shipping large amounts of grain to them. So, of course, we had to go to India. But indeed, as far as effective birth control for India, that never went as well as it should have, mainly because of the overhang of past decisions. The U.S. owned rupee for example in India—several billion dollars on the books in ’66, ’67.

Responding to starvation under Public Law 480, the U.S. shipped twenty-some million tons of grain to India. The Indians, instead of just simply handing out the grain, decided to sell it at a low price, mainly. It was sold, so it supposedly generated rupees, which supposedly were put in accounts, and those funds were to be co-programmed by India and the U.S.—USAID. This had been going on there, for several years. The trouble was that there was this (motorboat passes) ephemeral “U.S.-owned” rupee account in India. Which really were just entries in account books. But the existence of those account books really barred other assistance. For example, the Ford and Rockefeller Foundations would not put any money into India, because there were these ephemeral billions of dollars worth of U.S.-owned rupees there.
And, USAID had strict regulations, that we could not put grant money into India because of the “U.S. owned rupees” there. Often USAID was trying to cajole the Indians into using the “U.S.-owned rupees.”

And, India was defending against doing what we said, because they had their own sense of priorities. And of course, when it came right down to it, fundamentally, if they wanted to use more rupees, they could just run the printing presses for a few hours and they’d have all the rupees needed; they didn’t have to go to an account marked, “U.S.-owned” to get rupees.

So, it was a hell of a thing. But, it prevented effective U.S. support for the India program during much of a decade, because we were not permitted to put in dollars, even when we got grant moneys under Title X. We had a substantial USAID population staff there at the time, in India—nineteen people. And, they were trying to help the Indians. But, they weren’t providing (knocks on desk) real money and so they mainly bothered the Indians. And, the Indians became understandably less and less happy with that. And, they really prevented us from having much effect as we should have had. This came to a head when Dr. John Hannah came in as administrator in September, 1969. He came in and the Near East-South Asia Bureau held a meeting within AID to bring him up to date on population and family planning in India. I was invited to the meeting, but it was clear that it was in the hands of the Near East-South Asia Bureau, and they were
running the show. And mainly, they were telling how although all was not right in India, but AID had done everything they could. Papering over our gross inability to act. Initially I thought I would speak there, but became quickly aware that I would not have an opportunity to really say anything as fully and carefully as it needed. So, I kept my mouth shut. We had that meeting. And in the next week or ten days I wrote out a memorandum, very carefully and fully, to: See Distribution—John Hannah, and Morrie Williams, and all the key people in AID—communicating to them, the Office of Population view: that AID had really not done anything effective yet, in India, and it never could, unless we could put real grant money in. And, I called for putting in at least $50 million, initially. John Hannah had just come aboard, but he was a very capable person, and he read that and Morrie Williams, his deputy, read it. And when Hannah asked Morrie Williams what he thought of the memo, Morrie Williams said, well, he really agreed with me. So then, Morrie Williams got busy to trying to get the approvals needed from Congress for changing USAID rules and regulations to enable us to use dollars in India—to put real grant money into India, despite the ephemeral rupee account. Maury Williams went to Congress—the key people there—and educated them that this needed to be done. Because, until that time, they had held to the posture that there were several billion dollars worth of rupees there that just needed to be spent.

**Sharpless**

Hm-hm.

**Ravenholt**

But, he did. And, in December of ’69, we had a meeting in Stockholm of the India Consortium of Donors, and Williams committed that USAID would
provide fifty million grant dollars, in support of India’s family planning.
Which was a remarkable turnaround. Also, out of that memo, and taking the
stand that I did, John Hannah and Maurice Williams gained confidence that I
was willing to stand and say what needed doing, and fight for that. And that
led to the reorganization, giving me all the population personnel in
Washington. And so, it really (air horn sounds) was very fundamental to
many improvements. It enabled our starting the World Fertility Survey. In
1972, they gave me the Distinguished Honor award—Hannah and company
did. But, the thing that triggered it was really just standing for what I believed
in (knocks on desk), and writing it out thoroughly and sending it to all
concerned.

**Sharpless**

Uh-uh.

**Ravenholt**

And, I guess they valued that.

**Sharpless**

Okay. So, India was an obvious choice. What were some other obvious
choices?

**Ravenholt**

Oh, Korea. We had a strong aid program in Korea. The Koreans were ready
for assistance. They were ready and willing—they were not held up by
religious opposition or anything. So, Korea was a good country to work in.
And, we got far with that. Most of our assistance there was through private
and voluntary agencies. In Indonesia, we got going, beginning particularly in
1969, after we had had a conference at Bandung, in central Java. In the
spring of ’69, we had a conference there. President Suharto had recently
taken over, and had become seized with the importance of population and
family planning. And, we got some good people in there, as mission director,
and population officers. And, that evolved quite favorably over some years. We were able to really get them making oral contraceptives much more fully available. And, so the utilization went up rapidly, and we were supplying huge quantities of O.C.s, initially ten million cycles—then twenty million and thirty million. We were providing them all the oral contraceptives they needed to get full availability. They were getting them out in the village and utilization went up rapidly. They were shy with respect to sterilization and abortion, though we trained quite a few people and provided help. But we never got a really full-bore voluntary government-supported tubal ligation program going—got some, but not full-bore. But, we made a lot of progress. Bangladesh, of course—these poor countries were always at the top of the list that we needed to get in. We did get into Pakistan—we provided substantial help to Pakistan. But, Pakistan had a remarkable capacity for doing the wrong thing.

_Tape 1, side 1, ends; side 2 begins._

Ravenholt

Remarkable propensity for doing the wrong thing in family planning. I remember, in January of 1969, there was a worldwide IPPF conference at Dacca, in East—then East Pakistan—later Bangladesh. And Enver Adil was the head of the family planning and Nafis Sadik was his deputy. Enver Adil had strong (air horn sounds) support from President Yahya Khan. But strangely, I was there at this week-long conference in Dacca, at the Hotel Intercontinental. I devoted considerable time trying to persuade Adil and Sadik that they should get moving to make oral contraceptives generally available. But I couldn’t persuade him to do it. He had gotten involved with
the IUD program in ’64, and they started putting in Lippes Loop. And then when it wasn’t going so good, he trained up a bunch of auxiliary nurse-midwives to do the insertions. And then when it still faltered—the program—he gave them target numbers of insertions that should be done. And so, they pushed more vigorously to insert more IUDs. Well, it was precisely the wrong response. What he should have done is stop and gotten a better analysis of the program, and realized that he simply didn’t have enough medical support for IUDs because of the discomfort, bleeding, infection, and so forth. And so, when he gave the auxiliary nurse-midwives targets and they pushed, that really killed the program. That’s when rumors went wild and more IUDs were coming out than going in, and that was the end of an effective IUD program. For some reason, he was unwilling to go with the oral contraceptive program. They made a few, sort of, half-hearted passes at it—probably trying to satisfy us, but not really succeeding. Likewise, Afghanistan never made the oral contraceptive generally available, and India didn’t. This is most unfortunate, but it was part of their culture. They’d rather keep their young women “barefoot and pregnant”, than let them have the options that American women have gained.

Sharpless

Hm-hm. Now, in your reports at that point, you wrote, contrasting Indonesia and Pakistan, I’m sorry—contrasting the success of Indonesia versus the—

Ravenholt

Yeah, we did manage to get forward in Indonesia, even though it was Muslim. We did manage to get forward with ready availability of oral contraceptives throughout, and they really took to family planning—they put
good people in key positions. And, we had good people on our side, and we were providing strong support from Washington, and so things went really quite well there. Even though they never went all the way, like China with full emphasis upon sterilization and abortion as well as oral contraceptives. But, we made quite a lot of progress.

Sharpless
What else—

Ravenholt
We had always had Philippines high on our list, and for a while we seemed to be making good progress in the Philippines. But then President Ferdinand Marcos, and Imelda ruined the program. In October, 1970, I was in the Philippines. My brother, Albert, maintained a home in Manila. And we, along with many local family planning leaders, were invited for dinner at the presidential palace. Bill Draper was there, too—this was before we went on to India. And if I had time, I’d tell you some interesting stories about the whole thing.

Sharpless
Go ahead.

Ravenholt
Well, we came to the Malacanang Palace about 7 P.M. and Imelda Marcos met and greeted us. She had been in Washington the month before, and had come to AID, then. Now, she was at the Malacanang, she had a gorgeous dress on, and I asked her if she’d gotten that in Paris. She said, No, she got it in New York, when she was there. But it took most of an hour before President Ferdinand Marcos arrived and we went to dinner. My (coughs) brother, Albert, and his wife, Margie, were quite prominent in a variety of ways in the Philippines—they were invited too. So, we were there, as well as a lot of the family planning people—the leaders in the Philippines. While we
were waiting for desert, General Draper spoke to me and said, “Tell the president and Mrs. Marcos about prostaglandins.” We had been working on that, so I gave them a brief update on prostaglandins, and they seemed to accept that well. The main thrust of the dinner was that Imelda Marcos was pursuing the project of creating a Philippine Population Center. That’s why she had visited us in Washington a month before, and in New York she had seen John D. Rockefeller III, who had a particular interest in the Philippines. She managed to persuade key people at USAID plus John D. Rockefeller III that we should provide support for the creation of a Philippine Population Center. The government of the Philippines provided the land, and Rockefeller put up three-quarters of a million, and we—AID, put up three-quarters of a million to build a Philippine Population Center with the idea that it might be a way of riveting the support of President and Mrs. Marcos, and the government, generally, on family planning (coughs), which until then we’d largely been supporting through IPPF and Pathfinder, and these private, voluntary agencies. So, it seemed to make sense, at that time, to us. And, we did go ahead—they did go ahead. They built a very beautiful Philippine Population Center, but then some things that we’d not foreseen happened. They invited and pressured all the private organizations that were active in family planning in the Philippines to move into the Philippine Population Center—air-conditioned, beautiful woods, and so forth.

Sharpless  
Like Pathfinder, you mean?

Ravenholt  
Pathfinder and all of them, then had their offices (tapping as he speaks) in the Philippine Population Center. Then, which we’d not foreseen, they were
under the thumb of the Philippine Economic Commission, which started charging substantial rents from these organizations, but they also really had them under their thumb. And then, it turned out that Imelda Marcos was not committed to reproductive freedom. She was intensely Catholic and had a brother who was a priest. She was much under the thumb of Cardinal Sin. We had had an appropriate family planning operation going in the Philippines. And, she managed to just twist and turn that so it became Project Compassion. So, it became a welfare project, rather than a birth control project, even though pretending to be a family planning project so as to continue receiving USAID support. But she really wasted the effort.

Of course, the Marcos’ eventually got in considerable political disfavor for many reasons, but it was very exasperating to have her waste our money and time and a lot of good work. And since then, the Philippines have lagged in their control of fertility, mainly because the moneys were not applied for birth control. I mentioned Pakistan, which never went as well as it should have. Afghanistan is intensely Muslim and never went so well. India, where we really made a big contribution in terms of tubal ligation—we could have made a huge contribution in terms of oral contraceptives, but were not permitted to do that. In Latin America—Mexico and Brazil—they did not want bilateral family planning assistance—government to government.

**Sharpless**

Why not?

**Ravenholt**

It was still too sensitive because of the Catholicism.

**Sharpless**

Okay.

**Ravenholt**

But, they did let us do a lot of essential work through the private and
voluntary agencies. I mentioned JHPIEGO and voluntary sterilization, tubal ligation. But, through IPPF, Family Planning International Assistance—Planned Parenthood/Western Hemisphere—IPPF Western Hemisphere, Pathfinder, JHPIEGO, IFPRP—through these many organizations that we were funding, we were able to provide a lot of effective help. I remember in 1975, through these various organizations, we were providing about $12 million of help to Mexico. And, pretty much an unlimited number of contraceptives if they wanted them. We were training many people—bringing them out for training, both physicians, but also other categories. Same thing for Brazil, where our ambassador, Roundtree, would not let us institute a family planning support program. But, through all these other mechanisms, particularly bringing out—many doctors for training, and supplying them, and all that, we got forward in Mexico and Brazil. For years, Columbia made good progress, but in more recent years, things have sort of gone to hell in Columbia.

**Sharpless** Not just in family planning.

**Ravenholt** No. In some of the countries—Latin American countries they’re really like European countries. Chile, you know, is pretty much like a European country. (motorboat passes)

**Sharpless** In terms of its birth rate?

**Ravenholt** Uruguay and Argentina, and so forth.

**Sharpless** When you say they’re like Europe, you mean in terms of their birthrate?

**Ravenholt** Yes. And their susceptibility to family planning is much like the European countries. Some of the cultures, like Guatemala or Nicaragua and so on, are
dominantly Indian, and things do not move so rapidly there, as they might if
the leadership were better and they had different approach. But, suffice it to
say, by this time, Brazil has made a lot of headway, and Mexico has made
much headway, too. Much of it is a consequence of our assistance in those
diverse ways. And, many of the other countries, like Chile and Peru —
Columbia sometimes made headway. (motorboat passes) Argentina and
Uruguay are really sort of European. So, Latin America has actually made
quite a lot of headway. Of course, Haiti has not made much progress.

Sharpless
Okay, you’re looking at a table of birth rates by country—of countries by
continent and level in 2002.

Ravenholt
Right. Haiti has always been a problem. Things move very slowly. We’ve had
some of our best people go in there—Bill Boynton, who was my deputy for
years—a very good person—went there, for awhile, and so forth. But it
moves hardly at all. You know, it’s a combination of Catholicism and
voodoo, and it’s very hard to implement the program, there. So, that’s a
problem. Guatemala has not gone very much forward, but Columbia had
made progress, but it should have gone beyond where it is. Costa Rica, of
course, is sort of European. And, they’re down close to replacement fertility.
The many small countries down there have birth rates somewhat like
Europe. But, there’s still need for additional work in Haiti, and Nicaragua,
Guatemala—there’s still quite a lot of work that needs doing there. Other
countries that (motorboat passes)—let me just look at this a moment. Iran
was a problem, earlier, but at a certain point, they sort of caught fire, and
they’ve gone forward with an effective birth control program. Those
countries that were part of the USSR—they have a tradition of extensive use of abortion, and that keeps the fertility at a low level. In more recent years, the U.S. has been trying to assist them in getting contraceptives. Earlier on, the communists simply didn’t make good contraceptives available—such as oral contraceptives. I remember, in 1974 we had the World Population Conference in Bucharest, Rumania. And, the U.S. embassy, knowing we were coming, asked us to be sure and bring an ample supply of oral contraceptives because they couldn’t get them in Bucharest from private, or government sources.

Sharpless They could make atomic bombs, but they couldn’t make good oral contraceptives.

Ravenholt Yeah. That was about it. That’s been true of many of those communist countries, that they’ve had fairly low birth rates because of the full availability of abortion. But, Iraq’s birth rate is still way up there, and Laos and Nepal. (airplane passes) We’ve made some progress in Nepal, but we started from almost nothing. Back in the beginning of the ’70s, the proportion of couples using contraception in Nepal was like 2 percent. It was just almost nothing. And, it’s been an uphill battle getting them to using effective contraception.

Okay, let’s see what else.

Sharpless Okay. You mentioned training personnel. Tell me more about that.

Ravenholt Well, we had many training programs.

Sharpless Yeah.

Ravenholt We had the universities. We supported in large measure their population centers—Michigan and North Carolina, Johns Hopkins, and so forth. And
the University of Chicago—they specialized in different areas. Johns Hopkins University was especially strong on clinical things. At the University of Chicago it was information, education. Carolina, it was a mixture of things, likewise, California. At Michigan we had a population internship training program. They were responsible for that. The population interns were deployed in various places in AID, and in other countries, for training in population and family planning. And, Michigan was particularly managing that.

**Sharpless**  
Now, how did you get these very fine universities to work with you?

**Ravenholt**  
Oh, that’s easy, when they know we’ve got money. Though some started before we got money, to some extent. North Carolina and Michigan had, to some extent, got started with private money. But, once we got substantial moneys they got considerable; they’re all ravenous for more money. If they could do good work, we provided the moneys.

**Sharpless**  
So, you worked with these centers at universities and then you would bring in personnel from LDCs?

**Ravenholt**  
For training, yes. And, some of the key people, like Harry Haryono in Indonesia, who became a longtime director (telephone rings) of the Indonesian program. He got his training—a Ph.D. at Chicago. The U.S. universities are quite seductive for people all around the world. Our high schools may not be too good, but our colleges have such a broad variety of opportunities that they are a great magnet. Our universities are open for discussion and better training. I remember how it used to be in Europe, where in most of your European countries it was “Herr Professor,” and it
had a very taut, hierarchical kind of training arrangement. And, the emphasis was on discipline and everybody stay in their place. Whereas, in the American university, it’s a free for all. I remember when I took my epidemiology, public health training at the University of California at Berkeley, for my MPH, they had quite a few foreign students, from Thailand and elsewhere. The thing that was really surprising was how many of these students from these less-developed countries never said a peep. They’d sit there the whole year and never say a thing. So, they were, no doubt, somewhat surprised at my approach. Because when I went down to the University of California at Berkeley, I’d already had a number of years in the Epidemic Intelligence Service and with the Seattle-King County Health Department. So, I had a lot of relevant experience. Some of these universities can be a bit deadly, you know, just getting a masters degree.

When I was at the University of Minnesota, working my way through medical school, everything was new and I was not in a very strong position to challenge anybody. But, when I went down to California, in a fair number of these areas, I actually had had more experience than the professors had. So, I made a promise to myself. I could just go through the year, and sort of relax in the back of the room, and wouldn’t really have to do much work. But I decided to give it my best shot by sitting up front, listening carefully, and if I didn’t understand something, I’d ask for clarification. If I didn’t believe it, I would tell them so. And, quite quickly, I think, the word went around among the professors that, This Ravenholt is likely as not to challenge you on this or that. Soon I was operating at the top of my class,
became president of my class, and got a great letter from the dean, and so on. There were several foreign students who were not passive, like Dr. Kim from Korea and Dr. Saad an Egyptian who were very like we Americans in their willingness to tussle on whatever issue. Anyway, it was an interesting experience.

**Sharpless** But that hap—then—

**Ravenholt** The whole U.S. role, since World War II in bringing many people from overseas, and giving them training in their particular disciplines and sending them back, has had a very important role in furthering development and our relationships with those countries. Because usually, if they’ve been here, they were fond of the experience, and receptive to U.S. assistance.

**Sharpless** Well, would you like to stop for today, or would you like to keep (speaking at the same time) on going a while longer?

**Ravenholt** Let’s see, what are the most important things?

**Sharpless** Well, let me put it on pause, here. Hang on.

*Tape 1 ends; tape 2, side 1, begins.*

**Sharpless** This is the second tape of the fifth interview with Dr. Reimert Ravenholt, on July 20th. Okay, we’re going down our outline here. Now you mentioned—you talked a little bit about the Population Information Program, yesterday, but let’s talk a little bit more about it, with the work of Phyllis Piotrow.

**Ravenholt** Yes, we created this. She’d been executive director of the Population Crisis Committee with General Bill Draper. Then went and got her Ph.D. at Johns Hopkins while still keeping one foot in the door at the Population Crisis Committee. Then, when she finished that, she needed a challenge to take on
something new. And, she and I were both very much aware that we needed to strengthen our capacity to provide essential population information—the latest views of certain technologies, and what was going on family planning program-wise. So, we created the Population Information Program, first at George Washington University. Where it was for some years. And then was transferred to Johns Hopkins University where it’s remained since that time. She has been the director, during many years, and just recently—last year, retired. But, this was a very valuable addition to the scene, because the key reports were published in four languages, 50,000 copies per issue,. So, we were able to get authoritative information throughout the world, which was valuable, because it smothered the rumor-mongers.

**Sharpless**

Now, what would be the distribution network on this?

**Ravenholt**

Well, she would certainly provide an adequate supply to all the various organizations that worked in the field. And it would go to just about anyone who worked in the field and wanted to be on the mailing list. In AID, we would have had this going to all the population personnel, but their usual press run was about 50,000. So, it would be widely distributed in many countries.

**Sharpless**

Now, you are a very communicative person. And the subject of communication has come up several times in the last couple of days. Talk a little bit about your philosophy—why you think communication is so important.

**Ravenholt**

Well, of course, communication’s important, particularly in public health. When dealing with a public, you must communicate. That means mass
media. That means newspapers and radio and television. And then also, we have to communicate professionally. That means medical journals, but if you only depend upon medical journals, it would be too slow and many of the things you’d want to get out you couldn’t get out with enough surety and speed, to be effective. So, we set up our own information communication system. Which, indeed, did operate with strength and speed and effectiveness.

**Sharpless**

So, was this—so was this population report essentially your main vehicle of communication, then, to the public?

**Ravenholt**

Well, it was a main vehicle for communication worldwide in the population and family planning field.

**Sharpless**

Yeah, because your name is not on there. It doesn’t say “USAID”; it says “Johns Hopkins.”

**Ravenholt**

With most of our cooperating agencies—we tried to keep a low profile, especially in the years when many of the things that were being done were quite sensitive. And when the U.S. was involved in the Vietnam War, we had to be careful not to do anything with too heavy a hand. (motorboat passes) So, they all minimized attribution to USAID. Somewhere way down deep in it, it would probably say they received some support from AID, but the public probably would not know the extent to which we were involved. But we also did publish an annual report on the program.

**Sharpless**

Right.

**Ravenholt**

Especially recording all the expenditures where did all the money go.

**Sharpless**

Right. Right. (speaking at the same time)
Ravenholt: Because we—

Sharpless: We looked at those bound volumes yesterday.

Ravenholt: Because the Congress had earmarked the moneys for this, we very much needed to be able to show them just what we used the money for. And so, we did this. But, there came a time in the bureaucracy, when the adversaries came in, they really were resentful of our annual report, and these other reports, and they interfered with us being able to do it each year. They stopped that, because it gave us too much visibility and traction with the U.S. Congress.

Sharpless: We can talk some more about that. But, now your career had been partially helped along by that feature in *The Saturday Evening Post*.

Ravenholt: Yeah, my epidemiological career.

Sharpless: Yeah. How much were you dealing with the popular media at this point, when you were at USAID.

Ravenholt: Well, through my time with Seattle-King County Health Department, I was dealing with the media quite a lot. Because it seemed like I had a lot of interesting things, and the newspaper and radio and television were interested. When I went to AID, I wasn’t dealing with the media, so much. To begin with, I didn’t have much to say. But, later, we began to get things to say, and I was publishing in journals and certain periodicals, but still not very much with the media, because one is somehow inhibited, one has to be wary of that. If, in the agency you become too much involved in the media, you can be sure it will redound to your disadvantage, somehow. So, I never really was that heavily involved in the media. Perhaps, not as much as I
should have been.

Sharpless

Why do you say that?

Ravenholt

Well, if I had been able to raise my visibility to a very high level, then I could develop additional political support and I might be immunized, somewhat. But, on the other hand, it would give handles for a lot of people who would make trouble for oneself, or the program. So, I wasn’t really so much involved with the media, except publishing in professional journals. Some of these I would author and co-author. And, I would review all of them during quite a few years. But, ultimately, political changes occured. And speaking of that, we had strong White House support initially—not financially, or people initially, but Lyndon Johnson certainly understood the importance of population and controlling population, so he was very strongly in favor of that. And, interestingly, Richard Nixon also understood the importance of population. And, when he was elected in ’68, during the presidential transition—December and January—I was invited by Patrick Moynihan to participate in developing a speech or position paper by Nixon on population. And, I did that, along with Phil Claxton, from the Secretary of State’s office. We met a number of times with Patrick Moynihan in the West Wing to prepare that position paper for Nixon on population, which he presented to the Congress the following July. But then, of course, he soon got knocked out of the office—resigned the presidency, and Ford took over. Ford seemed to have the same intuitions as Johnson and Nixon. He was basically for family planning. But then, Jimmy Carter ran for the presidency in ’76. And, on the 31st of August, 1976, he and his assistants Ham [Hamilton] Jordan
and Stu [Stuart] Eizenstat, met with the boards of the AFL-CIO at the Shoreham Hotel, at luncheon, to try and get labor support. And in the evening, at the Mayflower Hotel, they met with fifteen Catholic bishops, and somehow a deal was struck where, in exchange for Catholic support, Jimmy Carter would bring in some of our adversaries—Jack Sullivan, particularly, an anti-birth control Catholic zealot, who had been bothering us from Congressman Clem [Clement] Zablocki’s office. He had been bothering us from the Hill, but now, they brought him right into AID during the presidential transition. And, he rapidly went to work to bring in, not helpful appropriate persons, but to bring in people to take action to degrade our program. And, he brought in, especially, Sander Levin, who had run for the governorship of Michigan, unsuccessfully, but they’d gotten together while campaigning in Michigan. Sullivan brought him in, and from the first few days, he clearly went to work to try and get me out of the role that I had. He became assistant administrator for the Bureau of Population and Humanitarian Assistance, wherein I was director of the Office of Population. I was a GS 18, the highest level of civil service, and I had a dozen years of experience in running my program—very successfully. And, he was a political appointee, but clearly Jimmy Carter was responding to others. Two federal agencies were concerned with birth control: Health, Education and Welfare had family planning programs, and AID had population and family planning programs. He put Joe Califano, a Catholic, in as head of HEW. And, the first person to whom he offered the role of administrator of AID was to Father Theodore Hesburgh, the president of Notre Dame. And, I got
that directly from Cyrus Vance.

**Sharpless**
Secretary of state.

**Ravenholt**
Who became Secretary of State. And they’d offered the job to—

**Sharpless**
Hesburgh?

**Ravenholt**
To Hesburgh. But, when I spoke with Vance, he wasn’t sure that Father Hesburgh would take it, yet. And, he didn’t take it. So then they gave it to Jack Gilligan, former governor of Ohio—a Notre Dame graduate, who came in. That is to say, they’d already brought in Jack Sullivan, who was a zealot against contraceptives. So, quite rapidly and progressively—it’s a hell of thing when your boss, who is over you is determined to get you out of there. He was confirmed in March of ’77, as the assistant administrator. And rapidly showed his inclination to grab the program and get me out of there. It was late May or early June when we had a meeting in Denmark with the World Bank, and other donors that Sander Levin told me he knew I’d done a good job in running the program, but he thought it was time for me to move on to other things. I just heard him and said I’d give it some thought.

**Sharpless**
Because the program was going full-stride at this point, (telephone rings) was it not?

**Ravenholt**
Yeah. (laughing) And it was by far the strongest program in AID. And, I’d had Distinguished Honor Award, and so forth.

**Sharpless**
So, you were at Denmark and he dropped this little subtle hint.

**Ravenholt**
Yeah, not so subtle hint. And, I put him off—I understood. Then, about a month after that, he had me over again. And, made a firmer request that I should leave my post, and this time I put in a query to the administrator,
Gilligan. And, Gilligan indicated that he agreed with Sander Levin.

**Sharpless**

Did they give you a grounds?

**Ravenholt**

Initially he just said my policies were different than his. Indeed, he had an excess of arrogance, never having been trained in what we were talking about. He still preferred his views of this to mine. On the 28th of September 1978, that noon or early afternoon, he invited me over to his office. He had brought in a Dr. Stephen Joseph, and several others as special assistants while he sidelined myself and key members of my staff. They were then encroaching on what we were doing in many ways. Steve Joseph was with Levin, and this time when he again asked me to resign, and I said I preferred to stay, he said he “would destroy me.” Now, the interesting thing there, was the timing. Why did he invite me over there on the afternoon of the 28th of September 1978? Well, Pope John Paul I was murdered there in the early hours—Rome time—he died—he was dead at 4:30 A.M., when his assistant went in with his tea. He was dead in bed. The day before, he’d been in apparent good health. He’d only been pope a month, and, he’d been quiet and studying things. But, on the 28th, he told the Secretary of State for the Vatican that he was through. Several billion dollars were somehow missing from the Vatican treasury. And, he took a number of actions, including telling his staff that he would meet with Congressman James Scheuer on the 12th of October. James Scheuer was one of the longtime movers on family planning in the Congress, whom I knew well, and who wanted to see the Pope to urge the Vatican to support birth control. Pope John Paul I took several decisive moves and didn’t live to see the next day. I said, “No,” to
Levin, and he then started the wearisome process of trying to develop justifications for taking dismissive action. I didn’t do this or I didn’t do that. He was complaining because I hadn’t handled various actions, that I hadn’t done such and such, on such and such a date. One complaint was for the day after my son Dane had been in an accident—had been hit by a vehicle and suffered a ruptured spleen, skull fracture, and had almost died the day before, and I had to pull up and come on out here. So, I was in Seattle taking care of my son, Dane, when he wanted me to do whatever that day. I have a great deal of this stuff, I’ve got in my attic there, that we prepared for the Merit System Protection Board thing. (airplane passes) That was wearisome. We went through a long rigmarole, and it wasn’t until about July of ’79 that the then acting administrator took action to transfer me out of that position. They couldn’t actually just fire me, but put me in a subordinate role and made somebody else acting director. Unfortunately I didn’t choose my lawyers as wisely as I might have. First I chose Joseph Rauh, a well-known liberal lawyer, but he soon proved undependable. Then I got Hope Eastman, who was a good lawyer, but not the best for me. I should have gotten Harriett Pilpel, legal counsel for PPFA [Planned Parenthood Federation of America]. Anyway, we were hassling with the Merit System Protection Board for more than a year. And the lawyer’s clock was running one hundred dollars per hour. And I became increasingly aware that the USAID program would never again be the same as it had been. And, Bill Foege, then director of CDC, wanted me to join him as director of their tobacco control unit. And that appealed to me, because of the many studies I had done in Seattle.
But we oversold it to the headhunters at HEW, and Joe Califano decided he personally wanted the function. So they lifted the function out of CDC and brought it into his office. Secretary Califano took a strong interest in the tobacco problem and moved so forthrightly the next year that the tobacco people recoiled in horror. And, when Jimmy Carter started to run for reelection, they made it clear to him that he had to get rid of Joe Califano. Which he did in July of '79, while he was preparing to run for reelection. Anyway, I tussled with the MSPB lawyers until I’d spent somewhat more than $50,000. I had two condominiums in Maryland, and knew I could sell one of those at a substantial increase to handle that $50,000, but if it kept on, it would really ruin my whole financial status. And that, plus the fact that I could see that it never would be the same again. That Levin had already dispersed many of my old staff, and Carter was still in office, so I couldn’t hope to ever again be running the Population Program as I had been doing. So, at a certain point, I decided to move over with CDC in epidemiology, in the Washington, D.C., office, so Foege and I could work together. Which we then did for a couple years, until CDC moved NIOSH and the CDC office to Atlanta. I don’t know if Smith College would be interested in all the legal hassles.

**Sharpless**

Oh, I think so. I’m quite sure they will be.

**Ravenholt**

In all the documents relevant to it. I think it’s kind of interesting. If the timing had been a little different. Because it was shortly after I struck a deal to move over to CDC, where we were going to develop a World Health Survey. AID had promised that they would make $11 million available for
this. But then, Reagan came into office, and they simply erased that from the budget. So, I never was able to implement that, but did do some interesting studies. But it was probably just as well. I might have enjoyed a big media battle over the world population crisis issue. But I soon became aware that the Catholic Church has such powerful control of the media, that it’s very difficult to be heard on this. Now, it’s changed a bit in the last year, with all the pedophilia and so forth. But, during many years, it was very hard to break through with any direct well-documented criticism of the Catholic Church.

Sharpless
Interesting. Let me turn the tape right quick, and ask a couple more things.

Tape 2, side 1, ends; side 2 begins.

Ravenholt
At that time CDC had a Washington office, because the National Institute of Occupational Safety and Health was in Rockville, Maryland. And so, I officed there in the Parklawn Building, where we had a small CDC unit. But, after two years, NIOSH was moved to Cincinnati, and CDC closed their Washington office. Then, I moved over with the National Institute on Drug Abuse, also in the Park Lawn Building, as Assistant Director for Research and Epidemiology. There I worked on smoking issues with Director William Pollin.

Sharpless
So, it was a return to what you were previously—

Ravenholt
Oh yeah.

Sharpless
—interested in, yeah.

Ravenholt
Then, after a year two years there—I moved to Food and Drug Administration—also in the same building, (air horn blows repeatedly) as chief of the epidemiology branch for the Food and Drug Administration. Dr.
Gerald Faich was a colleague and friend from CDC—also Epidemic Intelligence Service—a very capable person. I did that for three years. But then, there came a time when I had twenty-seven years in the federal service and Laurelhurst called. Betty [Butler Ravenholt] was directing a program of contraceptive social marketing for the Futures Group in Washington, D.C. I had met her in ’81, and fallen in love and we got married in September of ’81—met in April and got married in September. And she was directing that program out of Washington. But, for a whole set of reasons, it made sense for me to take retirement, and Betty to resign her job and for us to move to Seattle, where I already had this place, and my four children lived. From here, she got busy working as a private consultant, and has done that ever since for fifteen years. For a decade I was on the board of the (motorboat passes) American Council on Science and Health, working particularly on smoking and cancer and things that I have a particular interest in. And I have a strong historical interest, which has led to interesting studies.

Sharpless

Yes, you do. Why don’t you say a word or two about this house? It’s part of yours and Betty’s life that’s just amazing.

Ravenholt

For this?

Sharpless

Sure.

Ravenholt

Earlier, when I was working for the Seattle-King County Health Department, and also when I was a professor at the University of Washington, we lived in this suburb of Seattle, known as Laurelhurst. Which is a very handy and pleasing place with nice views and not far from the university and within ten or fifteen minutes of downtown Seattle. I had lived
here before, and knew how pleasing it was. While in the east I had joined the Cosmos Club.

**Sharpless**
Now, why is becoming a member of the Cosmos Club—

**Ravenholt**
Well, that’s a very—

**Sharpless**
—quite a story?

**Ravenholt**
—very distinctive club, back there.

**Sharpless**
There on Mass Ave., is it?

**Ravenholt**
Yeah.

**Sharpless**
Yeah.

**Ravenholt**
2121 Massachusetts Avenue—a historic club—having thirty Nobel Prize winners and about fifty Pulitzer Prize winners. And many emmenent people have belonged, including three presidents. It has a very good club house, which we always enjoyed back there. (motorboat passes) Quite a few dinner dances—they have a wonderful ballroom—orchestra and everything. Anyway, it was in 1987 then that we retired from the government, and moved back here. Fortunately, in 1978 I had purchased a home in Laurelhurst, with great views, while I was in D.C., knowing I would return here upon retirement. When leaving Maryland we sold our condo there at a large profit, with which we remodeled our Laurelhurst house, creating this top floor.

**Sharpless**
And that’s how you have your fourth floor study.

**Ravenholt**
Yeah, the top floor, here, we created that.

**Sharpless**
It’s just wonderful. It has two desks and bookshelves and a whole room for filing cabinets. It’s everything—and a view of the lake.
Ravenholt

It has a study forty-five feet long, and it’s got this view room, which is fourteen by sixteen with a great view of Lake Washington, the Cascades, and some of Mount Rainier. And, actually, I tell people like yourself, I look down on Bill Gates, because here I am about a hundred feet above Lake Washington level, and across the lake, there, you can see Bill Gates’ house. And, he’s only about fifty feet above the water. And, then I’ve got the deck out there—a twelve foot deck. Plus a files room, so I’ve got just about all of the study that one could wish for.

Sharpless

It’s an amazing place to work and think. I must say, although I find that over the last number of hours, I’ve been a little distracted, at times, by the sailboats out on the lake, or the seaplanes going over, or the sightseeing boats.

Ravenholt

Next weekend will come Seafair time, and the Blue Angels will be flying around here. They come wheeling right up here close, with a wonderful roar, six Blue Angels. I always enjoy that.

Sharpless

Now, let me ask you a couple of questions, by way of summary, for the Hewlett Foundation project. What do you think about people who want to do population work in the future? What recommendations would you give them?

Ravenholt

Oh that depends upon how they’re trained. Are they physicians? Are they public health workers? Are they demographers? Or just what is their training, and do they mainly want to get overseas? Or what do they wish to do? There are, from time to time various opportunities, but it usually is hard to get into exactly what you want to get into. There are population internships at the
University of Michigan, and that would be good. If I were a young person, I
would certainly examine that as a way of getting into the population field,
because that turns into a sort of apprenticeship, and that leads, through good
work and good personal relationships to additional opportunities. There are
many foundations, and cooperating agencies. But, now there not huge
numbers of opportunities. The staffs are rather cut back, and so it’s uncertain
just how much employment opportunity there may be.

**Sharpless**
If anything, it seems that the politics have gotten harder, since you got out.

**Ravenholt**
The politics are not satisfactory at the present time.

**Sharpless**
So, you think you’d be better off going to work for a non-profit, then trying
to do this through the government. (air horn sounds)

**Ravenholt**
Well, you’d certainly have to check it out, carefully. The number of
opportunities in the government would be fairly few. I think the glory days in
starting a new program are over. In the 1970s, we had a sense of mission and
*esprit de corps.* (motorboat passes) Very hard to maintain that in the light of the
way things are going. The technology has changed greatly, so now it’s all e-
mail. Some aspects of that are good, but it used to be that a person could be
assigned to a country on the other side of the world, and would have some
quiet time over there while working. Now, with e-mail the whole thing has
been speeded up, with daily e-mails and little time for independent thought
and action. One would have to examine carefully any opportunity. Best to
get the basic skills, good reading and writing and at least arithmetic skills. Get
excellent computer skills, and then learn a lot about geography, history and
all that. Those with good writing skills and computer skills are likely to find
plenty of work. My wife, Betty, has excellent writing skills, computer skills, and a great knowledge about the population field and consulting in many countries overseas. And so, her services have stayed in good demand over these years. But, that’s fairly uncertain for most people. (telephone rings) That is to say, she is a very good worker.

**Sharpless**

What are you proudest of, in your population work?

**Ravenholt**

Well, I would say I went into that jungle known as Washington, and the double jungle bureaucracies of State Department/AID, and I was greatly shocked with the lack of wherewithal to do (knocks on the table) the massive job (knocks) that I thought I was going to do, initially. And, I could have (knocks) stopped right then, and said, To hell with it, I’m leaving. But, I didn’t let go of it that easily, and I stayed on. And then, it was a far different task the first few years than what I’d envisioned. I was mainly in the bowels of the bureaucracies doing scut-work (knocking), it seemed to me. But—and I would make this comment to young people. Going into one of these large federal bureaucracies, there’s no way that you can suddenly change it, unless you’re appointed as the head of it, by a president who really supports you—then you could ostensibly do so. But, otherwise, there’s nothing you can do, suddenly, in avast bureaucracy; but at the same time these bureaucracies are changing—internally, people come and go. Bureaucracies are susceptible to change. If you get in there, and know where you really want to get to, and you’re willing to put all your talents into the struggle and actually stand fast for what you believe in and really work toward that goal, you may be able to do it, over a somewhat longer period of time. Of course, it might not work
out. I mean, the thing that happens is that there’s turnover. So, persistence is important. When I graduated from eighth grade at Luck, Wisconsin, our class motto was, “Perseverance brings success.” And, I can say that motto, in my lifetime, has worked very well. “Perseverance brings success,” when getting into the university and going through medical school, or getting into epidemiology and public health, or getting into population, “perseverance brings success.” And I take satisfaction that when confronted with the invitation to go and do—take a key role in subduing the world population explosion, that somewhat against my utmost desires, I gave up the good life in Seattle and moved east to do that. And then, overcame many problems. I did meet that challenge, because I realized if I didn’t, I would be drawing a high-water mark to my public health career. And, in later years, I would be having second thoughts about why I hadn’t done that. But rather, I did that. And then, after the difficult start up, we did manage to create the world’s most powerful population and family planning assistance program, by far. And, working along, applying the talents that I had and the experience I had, we were able to create a program such as very few have been able to create in Washington. Which was technologically very advanced and administratively organized, where a very small number of people—very dedicated—were able to move effectively with a worldwide program. And if you take each of these programs by technology—oral contraceptives. Okay, we gave that out. We provided billions of cycles of oral contraceptives. I mentioned the laparoscopic—voluntary sterilization—tubal ligation—we surely made a huge difference with that—putting more than $100 million into that, and
disseminating that technology worldwide into virtually all the less-developed
countries. Trained thousands of people. The menstrual regulation kits is a
very effective technology—and still going—done privately now, because we
could not continue. And, the prostaglandins that we put money into have
proved to be very effective for self-termination of unwanted pregnancies.
When I went to Washington in the mid-1960s, the total world population
was about three million, and if there’d been no organized family planning
action, it was predictable that the population by the year 2000 would be
seven billion, going from three billion to seven billion. But, we went at it, and
the programs we supported, the technologies we developed and
disseminated, and China helping, all this formal population and family
planning action resulted in the world population being six billion rather than
seven billion at the end of the twentieth century. So, all this organized family
planning action prevented about a billion people. Now, about half of that
billion, one can credit to China, with the extraordinary program they
implemented in that vast country. Currently 1.3 billion population; but they
would have been about a half a billion more if they hadn’t taken the action
they did, beginning in 1970. So, that’s half of the one billion prevented. I
think that the program that I directed during fourteen years can be credited
with at least half of the balance—at least a quarter billion births prevented.
The world would probably have at least a quarter billion more people now, if
we had not developed the program we did. So, many countries are in much
better shape than they would otherwise have been. But, I regret that the
Vatican hold on the White House prevented us from driving ahead and
finishing the task. The Helms Amendment and the Vatican usurpation of the White House population policies sidetracked the program at the end of the ‘70s. Otherwise we could have done the whole world—to where there’d be universal reproductive freedom. And certainly, I do believe that that is what is needed—universal reproductive freedom to where all the women and couples of the world are able to just have the children they want and can care for very well. So, there’s still a lot of work to be done, particularly in Africa. They’ve many problems in Africa—now, of course, AIDS, too. But, our current U.S. national political leadership makes it very difficult for this country to lead to the extent it must.

**Sharpless**

Well, maybe, that’s a good place for us to stop, right now. Thank you so much for all of your time in the last three days. I really appreciate it.

*end Interview 5*