

Dr. John R. Heller

An Oral History

Former Director of the National Cancer Institute

President of Memorial Sloan-Kettering Cancer Institute

American Cancer Society, New York

**Interview with DR. WYNDHAM D. MILES Historian,
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DR. JOHN R. HELLER

Dr. John R. Heller was born in Fair Play, South Carolina, on 27 February 1905. He graduated from Emory University School of Medicine in 1929, having received his earlier education in South Carolina. In 1930, Dr. Heller entered public health work as clinician for the Georgia State Board of Health on a syphilis control project conducted jointly with the Public Health Service.

Dr. Heller joined the U. S. Public Health Service in August 1931, and became a commissioned officer in the regular corps in 1934. A specialist in venereal disease control, he also engaged in post-graduate study and research at Johns Hopkins Hospital and at the University of Virginia Medical School.

On 1 July 1943 Dr. Heller was appointed Chief of the Division of Venereal Diseases where he directed the wartime programs of venereal disease control. On 14 April 1948 he was appointed Director of the National Cancer Institute, replacing Dr. Leonard A. Scheele who had been named Surgeon General.

Dr. Heller left NIH on 1 July 1960 to become President and Chief Executive Officer of the Memorial Sloan-Kettering Cancer Center, a position in which he served until illness forced his retirement in 1964.

Date of Birth: February 27, 1905, Fair Play, South Carolina

Spouse: Susie K. Ayres, Columbia, Tennessee,
Children - John R. Heller, III, Ennes Ayres, Winder McCavock

Education: B.S. Clemson College, South Carolina, 1925
Hon. Sc.D., Clemson, 1958
M.D., Emory University School of Medicine, 1929

Professional Training:

Internship, South Pacific Hospital, San Francisco, CA., 1929-30
Surgical Resident, Mills Memorial Hospital, San Mateo, CA., 1930
Clinician and special duty, Johns Hopkins Hospital, Baltimore, MD., 1934-35

Professional Experience:

Public Health Clinician and Administrator. State Dept. of Health, Georgia, 1930-31
Venereal Disease Clinician, U.S. Public Health Service, Arkansas, 1931-32
Venereal Disease Control Officer, State Dept. of Health, Tennessee, 1932-34
Commissioned in U.S. Public Health Service, 1934

DR. HELLER: Yes. On my mother's side of the family—well, my father's, too—they fought in the Confederate Army. I was one of eight children, being the second child and the oldest boy. I had five sisters and two brothers.

After we moved to Seneca, I received the remainder of my education in the public schools of Seneca, finishing grammar school and high school. In high school, I took all the science courses that were available and had a particularly good instructor who was, at the same time, superintendent of the high school, Mr. J.P. Coates, who is quite well known in South Carolina teaching circles. I took what was called agriculture in high school, which was a very good preliminary course generally for science. I took the usual math and other courses that were available and required.

Q: What kind of science courses did they have?

DR. HELLER: They had physiology, biology.

Q: Did they have physics?

DR. HELLER: No, they did not have physics in my high school.

Q: How about chemistry?

DR. HELLER: No, did not have chemistry. So I did not get the benefit of having preliminary physics and chemistry courses. I graduated from high school in 1921, and very promptly went to Clemson College in South Carolina, which was located nearby State Agricultural and Mechanical College.

Q: Why did you pick out Clemson?

DR. HELLER: Because Clemson was the school that several of my close friends were attending. Also, it was cheaper and I could afford to go there. Being one of eight children, we had to think of the costs. I knew a lot of the students there, and it was attractive. Most of my friends were taking electrical engineering, so I matriculated in the engineering school and took engineering. I enjoyed my work at Clemson. It was a military college at that time and was a very good place to go to school from most any viewpoint. I had a good time, and yet I got quite a bit there.

Q: Was your degree in engineering?

DR. HELLER: No, I did not graduate in engineering. In my junior year, about the time my junior year started, I realized that I was not cut out to be a second Einstein or outstanding engineer, so I shifted my courses to take all the biology and chemistry I could get, since I realized that I wanted to study medicine. I don't know what brought this about. I have been attempting to reflect as to what force or influences were acting upon me to shift from engineering to medicine, and I presume that it was due to two, really. My family background, my father, my grandfather, my uncle, and my uncle on my mother's side were physicians, so that there was some subtle but still unmistakable pressure that I felt, at least, to study medicine. The other influence was that several of my friends decided to study medicine, and in discussing it with them, there seemed to be rather a good reason to concentrate on pre-med subjects with a view toward entering medical school.

I took the usual pre-medical courses at Clemson, heavily leaning on chemistry. I took about all the chemistry that was given there.

Q: Who taught chemistry there?

DR. HELLER: Professor Brackett was the professor of chemistry at that time. I had several other very fine instructors, younger men, younger staff men there, who stimulated my interest in chemistry, although I was never profoundly interested in chemistry and certainly was not in any sense an outstanding student of chemistry, but I enjoyed it and got quite a bit out of it. It prepared me well for medical school. I had stoichiometry, industrial chemistry, colloidal chemistry, quantitative and qualitative analysis, advanced inorganic chemistry, and other courses that were available, and enjoyed them. I took most of the usual biology courses, including zoology and bacteriology, and received a fairly good pre-medical background.

Engineering is a pretty good pre-medical courses, inasmuch as one learns to study, since one simply cannot remain in an engineering school without studying. It taught me how to use my hands. Foundry, forge, woodwork, machine shop, and the like taught me how to use my hands, and freehand mechanical drawing taught me to print and to have an idea of perspective. So that later in medical school, I was able to do neat work and fairly accurate work, due to the preliminary basic training I had in engineering school.

Q: Were you in ROTC there?

DR. HELLER: Yes, I was in ROTC. Like the other students, when I graduated, I was a cadet officer. I was eligible for commission, a reserve commission. Since I was only 20 when I graduated, I

had to wait until I was 21 before receiving the commission. This I received when I became 21, by the time I was in medical school.

I graduated from Clemson in 1925, and very promptly applied to Emory University School of Medicine, which is located in Atlanta, Georgia.

Q: Why Emory?

DR. HELLER: I had an uncle who had graduated there, and it was the closest medical school to my home, Atlanta being only about 120 miles away from my home in South Carolina and on the main line of the Southern Railway. So that Emory seemed a logical place, and I knew one or two other boys who were going to Emory. So I went there instead of going to the state medical school, which is located in Charleston, South Carolina.

So I entered Emory University School of Medicine in September 1929, and had the usual experiences of a freshman in medicine, having to work very, very hard, struggling with physiology, biochemistry, and, chiefly, anatomy. The year was a pretty good year. We lost a good many boys from that class. Two of them died. The others found themselves floundering in anatomy and biochemistry and weren't able to pass the courses. So that my class was decimated by almost half of them, so that we ended our sophomore year with a comparatively small class. This was in the fall of 1925 that I entered medical school.

I went through the usual medical courses. Some of the subjects stimulated and intrigued me; others did not. I generally did better in pre-clinical subjects than I did in the clinical subjects, although I was interested in the actual practice of medicine and clinical work on the wards and at the clinic. But my grades, probably due to my basic training, were better in the didactic courses.

To make a long story short, I graduated from the School of Medicine at Emory University in June of 1929, and my best friend and I very promptly took off for San Francisco, where we had applied for and secured internships in the Southern Pacific General Hospital, which is a railway general hospital.

Q: Why had you picked that particular hospital?

DR. HELLER: For really two reasons. One, we wanted to go quite a way from our school. We had never been the West Coast, and my best friend's brother worked for the Southern Pacific Railway and told us of this hospital, its good reputation out there and its opportunities. Perhaps one exciting thing was that the railroad sent us passes so that it cost us nothing to get out there and back. So we started our

internship in the latter part of June 1929, and served the rotating internship until July 1930.

Q: Was this hospital just for railroad people working on the railroad?

DR. HELLER: Yes, both men and women, and was a part of the teaching structure of the University of California. We were under the general supervision of the University of California. We took some of our affiliated training with the University of California and with the City-County Hospital of San Francisco. So we had good supervision. It was a good hospital, a good general hospital, much like a public health hospital in composition, mostly men, but some women, and the sorts of conditions, problems, and all that one encounters in merchant seamen and other beneficiaries of the Public Health Service. So there was a good basic background for me, ultimately, when I did get into the Public Health Service.

After my internship, I wasn't sure what I wanted to do, but learned of a small hospital down the peninsula from San Francisco called the Mills Memorial Hospital, where one of the surgeons on the staff of the Southern Pacific Hospital was also on the staff of Mills Memorial and suggested that I try for a residency there. Another intern at the Southern Pacific and I applied and were accepted, so we were the two residents at this Mills Memorial Hospital. It was part of the Harkness family, who were Southern Pacific Railway people. They had donated the funds for this hospital. It was a 90-bed, very good hospital, mostly surgery.

I spent about two and a half or three months as a resident there, and then received a letter from a friend in Georgia, saying that there was an opening in the Georgia Department of Health. The Rosenwald Foundation had set up a study, and this study needed another young physician. It was in research in syphilis. He asked me if I were interested. Well, I had been working very, very hard as surgical resident, is what it amounted to at Mills Memorial, and was so tired and so worn out that I must confess that the idea of getting back South, particularly doing something that was different, appealed to me, so much so that I wrote to the Georgia Department of Health. They accepted my application, so I gave notice at the Mills Memorial Hospital and left there in September of 1930.

I came to Georgia. Again, the railroad very kindly provided me with a pass back to Georgia. I started work with the Georgia Department of Health in Brunswick, Georgia, as an assistant to the chief of a syphilis clinic at Brunswick, which was sponsored by and supported by the Rosenwald Foundation, a philanthropic organization very much interested in the health of the Negro. This particular study was

designed to find out the best treatment for syphilis in Negroes after the basic information was derived, as to how much syphilis there was in a population. There were some ten or 12 areas in the South that the Rosenwald Foundation had started projects. These projects were in North Carolina, Georgia, Virginia, Louisiana, Mississippi, and Alabama. After the basic amount of information was derived as to how much syphilis was there and where it was, treatment centers were set up, with a young physician in charge of each one.

After I'd been at Brunswick for a few months, the senior man left, which meant that I was in charge of this clinic. So I spent a year as director of this clinic, doing research as to the best type of drugs to use of the various companies. It was more or less an evaluation of the several types of neoarsphenamine that were available commercially from the pharmaceutical companies. Within certain limits, we were able to work out which were the better drugs for this group of patients, and I learned quite a bit.

One very amusing incident occurred while I was there. We had a Negro woman in her late twenties who became very sick. She was pregnant, and she very promptly died. We didn't know what the cause of death was, and we desperately wanted an autopsy to find out, because we simply just were not sure. So the coroner there was a Dr. Branham, whose relative, Dr. Sarah Branham, worked for the NIH and died a year or so ago. Dr. Branham was a very understanding and delightful old gentleman, and he declared this case a possible yellow fever case, since she was jaundiced and had yellow vomitus, and so allowed us to do an autopsy. We established from the autopsy that this was one of the cases that one occasionally heard about, who had an idiosyncrasy to arsenic and died as a result of arsenic poisoning, not through any fault of ours, but simply because this person was sensitive to arsenic, and there was no way of determining that. So we learned quite a bit from this experience.

We learned many, many things about the treatment of syphilis, and I saw syphilis in all of its stages, early and late. I, incidentally, saw two or three cases of hemorrhagic smallpox, something that one sees very seldom in a population. It very rarely occurs, and I was privileged to see it because the Health Department in which my clinic was located was a very active one in Brunswick, Georgia, and the health officer was very cooperative and helpful. I helped him with a lot of his work and learned many of the basic elements of rural public health.

After this year spent in Brunswick, the Public Health Service, which had supervised this project, asked me if I would be interested in future employment with the Public Health Service. Being broke and interested in the subject, I said yes. So Dr. Vonderlehr, who was then in the Venereal Disease Division of the Public Health Service, employed me as an acting assistant surgeon, which was a Civil

Service appointment, and very promptly sent me to Hot Springs, Arkansas, from Georgia. The Public Health Service ran a large Venereal Disease Clinic in Hot Springs, Arkansas, and I was sent over as one of the junior clinicians, particularly since I'd had considerable experience in treating syphilis in Georgia.

So I went to Hot Springs in July of 1931, and went to work at the Free Clinic, they called it, there. This clinic was an interesting one, in that most of the patients who came to it were individuals who had been treated or mistreated for syphilis and gonorrhea by physicians from all over the country, and as a last resort, were sent to Hot Springs. They were treated free of charge in this public bathhouse, it was called. So that we had an opportunity to see many, many interesting cases and how gonorrhea, particularly, should not be treated. We had several thousand patients during the course of a year, and at any given time, 600 or 700 patients were under treatment for syphilis and or gonorrhea at this clinic. It was headed by Dr. O.C. Winger, who was a very well-known Public Health venereologist, and the Public Health Service had used this clinic as a place through which the young officers were rotated to gain experience at venereal disease control.

I spent a year in Hot Springs, Arkansas, as a clinician, and then Dr. Vonderlehr [Raymond A.], who was Chief of the Venereal Disease Division, decided that it would be desirable for me to have some state experience. So he sent me to the state of Tennessee, to Nashville, Tennessee, as State Venereal Disease Control Officer. There I was attached to the State Department of Health and worked with a non-medical man, Mr. Bill Riley, who was quite an experienced venereal disease control man, but not a physician. I was introduced to the organizational structure of the state and local health departments, and charged with the responsibility of establishing venereal disease clinics in such areas as needed that would lend themselves to the establishment of a clinic. It was necessary, therefore, that I talk to doctors, to local medical societies, and others in order to get venereal disease clinics started and to institute programs of venereal disease control in these local health departments.

Within certain limits, I was reasonably successful in getting the programs going. After so long a time, I was there alone, since Mr. Riley was moved to North Carolina. During the latter part of my stay, the second year of my stay in Tennessee, I was loaned by the Public Health Service to the Tennessee Valley Authority, to help establish a venereal disease program for the TVA, the headquarters at that time which were located in Knoxville. Dr. Bishop, who was the State Health Officer of Tennessee, was designated the chief medical officer for the TVA, and I continued to work under his general supervision, although I was still responsible to the Public Health Service.

It's a very interesting device the Public Health Service had in those days of sending its junior officers, particularly, to work with a state health department. And sometimes to a local health department on loan, simply to learn how to be a good health officer, how to operate programs, and to fit into the structure of the state and local health jurisdictions. It's invaluable experience and something that I wouldn't take anything for. Of course, it stimulated a very deep interest in problems of public health, and particularly the venereal disease control.

Incidentally, during my stay in Tennessee, I met my wife, who was working in the State Health Department. After teaching school for a year, we married in December of 1934. But prior to that, I had completed the work in Tennessee, and Dr. Vonderlehr moved me to Johns Hopkins Hospital to do some research in syphilis in children.

So I was moved from Tennessee in the summer of 1934 to Hopkins, and very promptly started some studies of syphilis in children and to work in the clinic at Johns Hopkins Hospital, a very famous and well-known clinic for syphilis, particularly. They didn't treat gonorrhea at this particular clinic, since that was part of the urological service.

Q: Can I ask you how this worked? Were you a student at Johns Hopkins or a special worker there? How did it work?

DR. HELLER: I was special assigned. The Public Health Service had not started sending its officers to the School of Public Health. This was not a part of the School of Public Health. It was part of what was called Department One on Medicine L in Hopkins, under the general direction of Dr. Earl Moore, a very well-known syphilologist. So I was on special assignment.

Q: And Johns Hopkins cooperated in letting the Public Health Service do this?

DR. HELLER: Yes. They welcomed the Public Health Service officers there, because we worked in their clinics. Actually, I was the equivalent of a Fellow at Hopkins and had the status of a teaching Fellow. So we taught senior medical students. Incidentally, Dr. James Watt, who is presently in the Public Health Service, was one of the students at Hopkins when I was there, and I remember having him as a senior student. I was the preceptor. So I remember Jim very well.

Q: What does a "preceptor" mean?

DR. HELLER: The preceptor really is an individual who is a very junior instructor, to whom the senior medical student is assigned for supervision and for advice and counsel in the clinics. This was a

fascinating experience at Hopkins.

I was married in December of 1934 while I was at Hopkins. But I spent my honeymoon in Petersburg, Virginia, where Dr. Vonderlehr sent me to gather blood and spinal fluid specimens for a clinical evaluation of the methods of serology in those days. It had been found that the serological diagnosis of blood and spinal fluid was very bad in terms of ability to be sure that the specimens were properly examined. So an evaluation test was set up which enough blood would be obtained from a single individual and sent to each of 12 or 13 serologists. So that each did the work on this particular specimen, and they were checked by a master laboratory, which was the Public Health Service laboratory in New York, Staten Island, and the laboratory in Philadelphia. Of course, the results were checked against each other. The same was true of spinal fluid examinations. So it was quite a job to get enough spinal fluid from one individual to serve 13 different serologists, 5ccs to each one. I had many problems that had to be worked out in getting that much spinal fluid. I went to the Chief of the Neurological Service at Hopkins, Dr. Dandy, and I asked him what would happen if I took all the spinal fluid out of the system. He said, "Nothing." So I wound up taking, in Petersburg, from 150 individuals with syphilis and 150 individuals presumably without syphilis, from the state mental hospital at Petersburg. I wound up getting about 60ccs of fluid from each one, which is about half of the system, that being about 120ccs in the entire system. So nothing happened to these individuals, except some of them had some headaches. So it was a fascinating medical experience for me. I learned quite a bit and, I hope, contributed to this evaluation study.

After completing this work at Petersburg, I went back to Johns Hopkins. Shortly after that, in the latter part of March of 1935, I was sent to San Francisco, California, to be a ward surgeon in the U.S. Public Health Service Hospital, then the U.S. Marine Hospital. So I went to San Francisco as a junior officer and was assigned to the urological service, since I'd had some experience in urology at Hot Springs. So I spent about six months in San Francisco.

Then orders were cut, detailing me to Ellis Island in New York for quarantine duty. I drove across the continent with my new bride, and reported to Ellis Island and found orders there ordering me to Gallups Island in Boston harbor. So my wife and I went on to Gallups Island in Massachusetts, and there we lived on this island. There were only three or four other families living on the island. I did quarantine duty, the usual immigration duty, a very interesting and wonderful experience for a junior officer. I'd start about 5:00 in the morning, I'd be finished by 7:30 or 8:00 in the morning; I had the rest of the day to myself. I wrote several papers that I needed to write, and I did a lot of reading, played a lot of bridge, and had a wonderful time on this island. We went in October 1935 and were

moved away in April of 1936, so that I really didn't get to enjoy any summer activity. It was pretty cold on this little island. It was a fascinating experience and one I'm pleased to have had.

In April of 1936, I was ordered to the University of Virginia Medical School, where I was to receive training and opportunity to do epidemiology in the syphilis department of the Dermatological Department of the University of Virginia under Dr. Dudley Smith. I therefore went to Charlottesville, Virginia, in April of '36, and went to work in the hospital. It was a delightful experience, inasmuch as it took me back into an academic atmosphere. I learned a great deal about the epidemiology of syphilis, and had opportunity to meet many interesting people on the faculty, including Dr. Kenneth Maxcy, later at Johns Hopkins, who is an expert in epidemiology. I spent then about five months at the University of Virginia, and then was ordered to Harrisburg, Pennsylvania. This was in September of 1936.

At Harrisburg, I was designated as Venereal Disease Control Officer again for the state, and set up or helped set up a system of reporting in the state, reporting of venereal diseases and treatment centers throughout the state. This was a fascinating and interesting, somewhat difficult experience, inasmuch as I was subjected to considerable hostility from the medical profession, and had to work with them very closely, to cajole, to plead, and sometimes almost to threaten various physicians who did not seem disposed or did not wish to cooperate in venereal disease activities.

Q: Why were the physicians hostile to your activities?

DR. HELLER: The physicians were hostile because they felt that this was an encroachment upon their personal privileges. It's the same old story of their feeling that this was state medicine intruding and this was socialization, and that any hold that the state or any local government people had on medicine was a threat to their security. We see it now in the attitude of many physicians toward any sort of government activity in medicine.

We did set up this reporting system. It worked very well in the state. I learned much about the state and had an enjoyable time. The state health officer was a woman, Dr. Edith McBride Dexter, who was an ophthalmologist from western Pennsylvania. She didn't know much about public health, but she was very helpful and cooperative and backed me up in most everything I wanted to do, so it was an interesting and good experience for me as a young officer. My first boy was born while we lived in Harrisburg.

In November of 1937, after working a little over a year very hard in this state, I was ordered to New

Orleans, Louisiana, to the regional office of the Public Health Service, to become a Regional Venereal Disease Consultant to the several states in this area. The regional officers of the Public Health Service had just been set up, and they were trying out the several possibilities of having so-called experts in the several public health fields to render consultation to the state health departments upon request. We moved to New Orleans in November of 1937, and I very promptly started my tour around the states to get acquainted with the state health officers and to attempt to persuade these states to employ venereal disease control officers so we'd have a system by which we could expand venereal disease control through the states. It was in much the same fashion that I had previously been able to do in Tennessee and subsequently in Pennsylvania. This was a very difficult task with, again, some resistance from the physicians in the several states, and sometimes due to the lack of understanding on the part of the state health officer and some of his associates. But in general, the plan was fairly well received, and venereal disease control officers resided in most of the states.

During the latter part of the four years that I was assigned to New Orleans, after working with the several states, Washington called, and several of us were assigned to work with the Emergency Health and Sanitation Activities. It was believed that war was imminent, and the War Department had asked that the Public Health Service cooperate in working in the several parts of the country in which big camps were planned to be established. I was assigned to work with a team in Texas, Louisiana, Alabama, Mississippi, Georgia, in general, the area or region in which I had been working for the past four years.

We, therefore, went around to the parts of the country in which later the big camps were established. Working with state and local people in attempting to persuade them that they ought to set up recreational and good public health facilities to meet the problems that were going to come about as a result of the establishment of these large camps. This was particularly true in Texas, where, later, Corpus Christi Air Station was set up by the Navy, the several camps around Alexandria, Louisiana, and Mississippi and Alabama. We met with Rotary Clubs, with service clubs, generally, with the health officials, with people interested in recreation, to alert them to the problems with which they were going to be confronted. Naturally, my interest in venereal disease made it desirable that I attempt to persuade the communities to meet the venereal disease problem that would result from the numbers of men who would be in one place at one time. Camp followers would naturally be a problem, and I attempted to urge the local communities to watch for this problem and be prepared to meet it in a proper fashion. This was a fascinating program.

In April or May of 1941, I was ordered to Washington to work in the headquarters of this program of

Emergency Health and Sanitation. Soon after I arrived in Washington, after moving my family there, I was assigned the task of recruiting, training, and assigning emergency health personnel—that is, people to work in extra cantonment zones with state and local health departments. This was a tremendous problem because most professional people had already gone into the services or were already working in state and local health departments, so that we had to recruit from private physicians, nurses, laboratory people, veterinarians, dental officers, and others who were either physically unable to get into the services or who preferred to work in health activities. This was an extremely fascinating and interesting job. I was physically located at the National Institutes of Health in Bethesda, and had a class about every two months. The class lasted a month. We simply brought these people up to date with the problems with which they were going to be confronted and had them given lectures by experts in several fields as to the problems they would encounter. And how to meet them, and how to work with state and local health departments and, in general, to give them the sort of information they needed in order to go out and do good health work. This was a wonderful experience in administration, and I am grateful for this opportunity.

On July 1, 1943, after working in this program about two years, Dr. Vonderlehr stepped down as Chief of the Venereal Disease Division, and I was made Chief of the Venereal Disease Division, which carried with it a rank of four stripes, or equivalent rank of colonel in the Army or captain in the Navy. This was quite a step up from the one-and-a-half stripes that I had enjoyed back in 1936, and was a step up from three stripes that I had in working with Emergency Health and Sanitation Activities.

Being Chief of the Venereal Disease Division was quite a delightful and stimulating experience, inasmuch as I was able then, as chief of this activity, to put into effect several ideas I had for venereal disease control. Chief of these and the most successful ones of which I'm most proud is the establishment of so-called Rapid Treatment Centers, or as the phrase implies, centers to which individuals with syphilis and gonorrhea in an infectious state could be sent and treated in order to break the chain of infection. There were 66 of these centers throughout the nation, in all parts of the nation, usually in proximity to military establishments.

About that time, the May Act was passed. The May Act was an act which made it illegal for any person to practice prostitution in or around an extra cantonment zone or an Army or service installation. This was administered by the FBI. At that time, Mr. Elliot Ness was Chief of Social Protection. Mr. Charlie Pack was Chief of Community Services in what is now the Department of Health, Education, and Welfare, then the Federal Security Administration. Elliot Ness and I had to

work very closely together and with the FBI in this phase of health control.

As Venereal Disease Control Chief, my job, of course, was to stimulate and coordinate venereal disease control activities throughout the nation, and it had certain international implications, as one might imagine from the very nature of the activity. It was my job to work closely with the Army, Navy, and other branches of the services and this was a fascinating and worthwhile experience.

As I've said previously, I worked closely with the Federal Bureau of Investigation and with Elliot Ness in the so-called Social Protection Services.

Q: I can visualize this working within the states. Did you have any jurisdiction over the armies when they got into the theaters of war?

DR. HELLER: No, we had no jurisdiction over them, but we worked very closely with our opposite numbers in the Army, Navy, and other activities. They had venereal disease control also in all of these installations, and our job was to work with them and with the state and local health officers in such venereal disease control activities as needed to be undertaken in these areas involved. It was a wonderful experience in cooperation with these different individuals and the problems that we had. We had problems of prostitution, we had problems of actual disease control in terms of infectious diseases and treatment problems, logistics of getting drugs to the various Rapid Treatment Centers and clinics throughout the nation.

In 1944, it may be recalled that penicillin, was discovered by the Venereal Disease Laboratory at Staten Island Public Health Service Laboratory. Penicillin was effective in the treatment of both gonorrhea and syphilis. Accordingly, penicillin was used in all the Rapid Treatment Centers to break the chain of infection. Through the wholesale use of penicillin, plus other treatment methods, we were able to break the back, so to speak, of the syphilis infective rate in the United States and in the services. Most of the early cases of syphilis and gonorrhea were cured, or if not cured, they were treated to the point that they were no longer infectious. This, of course, meant that the various services would not have to worry about a venereal disease problem, and it was no longer a danger in our civilian population. So that in effect, I worked myself out of a job as Chief of the Venereal Disease Division. This was, of course, the sort of thing that one looks forward to, and I look back on this with a great deal of pride that I was given the opportunity to serve at this time when it was possible to see a disease reasonably well controlled.

Of course, as subsequent events have revealed, it's necessary to keep on top of a disease or to keep

working at it; otherwise, there will be a resurgence, as is now evident in the venereal disease rate that we are encountering throughout our nation.

Q: Do you know the circumstances of the story of the effectiveness of penicillin in this disease, or should I ask somebody else about it?

DR. HELLER: Yes, I'm reasonably familiar with it. Dr. R.C. Arnold of the Public Health Service and Dr. John Mahoney. Dr. Mahoney died about five or six years ago. Dr. R.C. Arnold is retired from the Public Health Service now working together in the Venereal Disease Laboratory at Staten Island on several patients found that when these individuals with early symptoms were treated with penicillin in appropriate dosages, that they could rid the individual of the spirochetes that cause syphilis. This was a wonderful discovery, and I remember well a report that was made to the American Public Health Association Meeting, then at the Hotel Pennsylvania, now the Statler Hotel, in New York City. I remember the hush that descended on the audience when Dr. Mahoney announced that these individuals had been cured of syphilis. This was perhaps the most striking discovery that had been made certainly in venereal disease history and perhaps in public health activities at all. It's equivalent to the discovery of the smallpox vaccine and polio vaccine.

Q: Would you happen to know why they thought of trying penicillin on syphilis?

DR. HELLER: It had been thought of by other investigators and had been used with syphilis patients, but nobody had used a large enough dosage until the group at Staten Island rationalized that it might be useful. The interesting thing about it is that it is equally effective with syphilis and gonorrhea, two different diseases caused by different organisms and having a different kind of a course; both were affected. Since penicillin had been useful in certain other diseases, it was reasonable that it might be effective in syphilis and gonorrhea, and that's the reason that the investigators started work.

Q: That's interesting, isn't it, that other people hadn't used large enough dosages.

DR. HELLER: I remember Dr. Harry Eagle, then working at the Johns Hopkins Venereal Disease Laboratory, which is also a laboratory of the Public Health Service, had tried it, had worked it out on a rational basis that it might work, but had not used large enough dosage. Since then, Dr. Eagle several times has said, "I could kick myself for not using a large enough dose."

Q: I'm going to talk to him Wednesday afternoon.

DR. HELLER: You probably can get the story from him more directly. I don't think that's apocryphal.

Q: That's interesting, how these things pop up in the history of science.

DR. HELLER: Yes, it is. The whole history of venereal disease in the Public Health Service is fascinating. Dr. Vonderlehr and I wrote a book called *The Control of Venereal Diseases*, which was published by Reinland-Hitchcock in 1946, some copies of which may still be around. It gives a pretty good account of the struggle against venereal diseases.

Q: Is it a history?

DR. HELLER: It's a textbook, but it really is equivalent to a history. To pick up again of my lurid past, in May of 1948, Dr. Scheele was appointed Surgeon General after Dr. Parran. Dr. Scheele had been Director of the National Cancer Institute, and as Surgeon General-elect, asked if I would be willing to become Director of the National Center Institute. Of course, I said yes. Dr. Scheele, being of the opinion that some of the techniques that were useful in venereal disease control might conceivably apply to cancer control, and since I had had considerable experience in this area, felt that I might be a good one to try it. I said, "Yes, I'd be glad to attempt this assignment."

I had comparatively little knowledge of cancer and no experience in cancer control, but I was interested in it and perfectly willing and anxious to do what I could. So I went in as completely green and ignorant in this area, and spent the first few months of my assignment, beginning in May of 1948, in becoming familiar with the problems in cancer control and the methods. It was quickly apparent that research played a huge part in cancer control, and since the Public Health Service, through the National Cancer Institute and National Institutes of Health, then the National Institute of Health, had a huge stake in this activity, I became as familiar as possible with my background with the various research activities going on at the National Cancer Institute.

This was a fascinating and worthwhile experience, to be sure. I learned much. A cancer control program was established with Dr. Austin Deibert and Dr. Ray Kaiser in charge of the activity. This really had been started by Dr. Scheele, but I attempted to give it impetus when I became Director of the National Cancer Institute.

Q: Could you tell me some more about this? Were you applying some of the experiences and ideas you had picked up in venereal disease control and now to the cancer program?

DR. HELLER: That was the idea. Actually, most of the Public Health techniques and practices,

whether they be infectious diseases or chronic diseases, are essentially the same. There is a common denominator. One must have a certain organizational structure; one must have an approach. One must know what the diagnostic possibilities may be; one must know something about how much a population must be educated. How much the medical profession must be educated; what sort of epidemiologic procedures are possible and can be undertaken; and what the treatment methods are. Whether or not treatment helps to break the so-called chain of infection, there being no chain of infection with cancer, of course, but going back to infectious disease concepts, whether or not the treatment will stop the process, and such things as rehabilitation and research must be, of course, considered as part of the control. These are some of the techniques of having cancer control officers, for example, as paralleling the venereal disease control officer system, that was so successful in the program of venereal disease control.

These were trained and set forth in the several states, in areas in which cancer control was projected. Generally speaking, the cancer control officers were effective, and they used, of course, their own native ingenuity, as well as previous practices that were known to be successful in projecting programs of cancer control.

Q: Did you have any problems in starting this program, let's say, in funds or in getting a good staff, things like that?

DR. HELLER: The greatest problem was staff. While funds are always a problem, funds for cancer have never been the problem that they are in some other programs, since we were blessed with sufficient funds to do most anything within reason from the very beginning of the program, although the funds were modest to begin with in 1947-48. I came to the Cancer Institute in 1948, and I think our budget started off with about \$14 million, which had to support research, research grants, fellowships, and administrative costs of all kinds. Therefore, there was not a great deal of money when compared with the present appropriation for cancer and for other disease activities.

Q: But you did have a problem in getting the staff?

DR. HELLER: Yes, the big problem was staff, as previously stated. What we did was to simply raid other programs—venereal disease, tuberculosis, and other programs. Individuals with Public Health training were recruited and assigned to be cancer control officers, and others were picked up and trained after a fashion in what we knew of cancer control and assigned. There were never enough, and that's been one of the problems with this program. We've never been able to get sufficient people to do the sort of job that we know needs to be done, even to this day. I'm sure the present Director of the

Cancer Institute would agree with that particular premise.

Q: Just what is it here? Is it that people aren't interested or they can't get high enough salaries? What is it?

DR. HELLER: There are a variety of things that keep people out. First of all, public health as a career is not very attractive to young medical officers; second, cancer is a chronic disease and doesn't have the glamour of infectious diseases. It's more difficult to work with. We don't have a good diagnosis of cancer. Cancer is a depressing problem in the minds of some people. Being a so-called chronic degenerative disease, it requires a great deal more study and research than in other diseases, and control methods that we believe to be methods are really not very effective, and it's discouraging to attempt to do a job in this area. We simply don't know enough about how to control this complex we call cancer. This, of course, makes it distasteful and not very attractive to a good many young medical officers. The salaries, of course, for public health workers aren't very high, anyway. So a variety of things contribute to this lack of attractiveness to working in cancer control.

Q: Perhaps I've interrupted you. After you'd gotten this program started, then, what other things did you do? You were in the Cancer Institute, you had gotten this cancer control started, and now what?

DR. HELLER: I attempted to become as much oriented as possible in cancer research, and soon found myself in international activities in cancer research. Cancer, of course, observes no boundaries, jurisdictional or geographic boundaries. It was apparent that there were international implications in cancer, particularly in research. I very quickly became involved in and with cancer research activities in foreign countries, and to some extent in cancer control. This was one activity that I found quite interesting and fascinating, as well as stimulating.

Q: Within the Cancer Institute, did this cause you to institute any international programs or to expand any international programs?

DR. HELLER: The international programs that were most effective, I would say, were the research grants or grants to investigators in foreign nations, who had good ideas and no opportunity at all to have them supported in their own countries. This was perhaps the best thing that we were able to do.

Dr. Meader, who was chief of the research grants of the Cancer Institute, and I were very much interested and concerned with this activity.

As far as cancer control was concerned internationally, about all that we could do would be to attempt to encourage the countries to undertake cancer registries. That is, the proper demographic studies, and to improve the diagnostic facilities in the several countries and to train physicians to diagnose and treat cancer in a much better fashion than had been observed previously. Of course, this presumed that we in this country were doing the sort of job that we knew ought to be done. Actually, we couldn't do the perfect job in the United States, but we certainly were much better off than other nations, and we soon became a leader, as one might expect. While we didn't set ourselves up as the alpha and omega of cancer control, we soon occupied this enviable—or unenviable—position, and many, many requests were made to us for funds, for consultants, and for the opportunities of affording training to foreign nationals who wished to perfect themselves in diagnostic and treatment methods in this country.

Q: In this field of foreign grants, did you have to set up any new programs there? Did you have any new problems or was it just a problem of perhaps not having as much funds as you would like to have?

DR. HELLER: Generally it was a problem of the foreign countries not having enough money to do the sorts of things that they knew were needed to be done or desirable to be done. There were many very good ideas that the foreign investigators had that simply needed to be supported. We managed to get some of these investigators come to the United States to work in the laboratories in the various universities, as well as the NCI, but, of course, this was proselytizing scientists from abroad, and this was not a very desirable practice on our part, so comparatively little of this was done. But some investigators did come to this country and made substantial contributions to our knowledge of cancer diagnosis and treatment.

Q: In this decade or more that you were the head of the Cancer Institute, what were the big changes, changes in emphasis or changes in growth or something like that?

DR. HELLER: In the Cancer Institute?

Q: Yes.

DR. HELLER: The Cancer Institute, in common with other institutes of the National Institutes of

Health, grew tremendously. From a budget of about \$14 million when I first went to the Cancer Institute, we emerged with a budget of about \$140 million, I believe it was, when I left, which was substantial growth. In terms of numbers of people there, it was from a matter of a few hundred to perhaps a few thousand when I left. I was at the Cancer Institute from May 1948 until July 1960, at which time I retired. So I was there for 12 full years.

Q: I'd be interested in these problems that you had that were brought about by this growth. That's a lot of money to have to spend and a lot of people to have to hire.

DR. HELLER: Of course, one is grateful for the funds that are available, but of course, these funds bring problems. We had problems that were shared with the National Advisory Cancer Council, of selecting through the study sections those projects which could best be supported or needed to be supported with funds. We had problems in recruiting and training and in advising in the recruitment and training of workers in research, as well as in cancer control.

One of our greatest problems was improving the diagnosis of cancer. I think that perhaps one of our greatest successes perhaps resides in this area, mainly the encouragement and expansion development of cancer cytology and cancer cytologic methods. Taking Dr. Papanicolaou's original concept that cells exfoliate from cancers in body orifices and examining these cells under the microscope in much the fashion that a biopsy section is done, one can determine with a reasonable degree of accuracy, whether or not cancer does exist in an orifice of the body.

Q: Incidentally, did the Cancer Institute finance any of that work?

DR. HELLER: Yes, the Cancer Institute supported Dr. Papanicolaou and supported other workers in methods of cytologic diagnosis. The Cancer Institute also had one of the electronic cytology scanning devices that were developed by the laboratory at Mineola, Long Island, the name of which eludes me for the moment, that was located at Hagerstown, Maryland, that was used, hopefully, to scan smears and determine whether or not cancer cells could be found on these smears electronically. It was found that the scanning device electronically could indicate the negative smears and would simply pull out those that were not negative for examination subsequently by technicians. But there were so many bugs in it and difficulties in getting correct smears that it was temporarily abandoned. I think the machine has been dismantled and is probably stored in the National Cancer Institute somewhere at this

time. There were two prototype machines, one here at Memorial Hospital, which similarly has been abandoned temporarily, and the one at the Cancer Institute. The experience was the same in both institutions.

Q: What brought about this tremendous increase in appropriations for the National Cancer Institute over these 12 years?

DR. HELLER: Probably a variety of things. A tremendous interest on the part of the public in cancer, I would say was the single greatest factor involved in this increase in appropriations. This is reflected, of course, through the congressmen who were sensitive to their constituency. The increasing prevalence of cancer which, of course, contributes to this interest of the public. And I think it must be said, in all fairness, that a good many of the relatives, friends, and close associates of some of the congressmen have cancer, and this brought the problem very close home to them, and they naturally were quite concerned and interested that the government take, to them, a proper and direct interest in improving the situation as regards the control of a complex of diseases like cancer. It's difficult to answer this question completely, because I don't think anybody can define all of the factors involved.

Then I think another factor that must be mentioned is the very great interest on the part of our scientists throughout the nation in cancer. This had not been true prior, I would say, to 1930. But from 1930 on, more and more biologists, chemists, physicists, and others became interested in cancer, and a great deal of fundamental work was done research-wise in this field. I think this contributed, of course, to the increase. Because any time the scientists begin to demand or to apply for support of projects in this area, it's going to tend to stimulate the agency responsible—in this instance, the Cancer Institute—for this program to go to the Congress and say, "We are being requested to support good projects, and we don't have enough money to support these projects. It's in the national interest to do so."

Then the Cancer Institute was encouraged by everybody concerned to develop as many new and good programs as possible, both in research and control, and nothing succeeds like success. So that the advances that were made in cancer control and research brought about new ones. All of these factors combined tended to cause an increase in appropriations.

Q: Did you have to appear before Congress?

DR. HELLER: Oh, yes, I had to appear before both the House and the Senate each year during the time I was Director of the National Cancer Institute, to defend the budget.

Q: What kind of reception did you get?

DR. HELLER: Generally the receptions were friendly, the questions were searching and quite to the point, because many of these congressmen became quite well informed about cancer, as they do about other disease entities, quite interested in the advances being made, and quite sympathetic with everything we were attempting to do. I would say that we had the full support of the Congress in cancer, as in other activities of the National Institutes of Health, and one simply cannot be anything but grateful that the Congress was interested and knowledgeable enough to support these programs.

Q: Could I turn this question around and ask you if you ever had any determined opposition from any particular congressman?

DR. HELLER: No, I never did. Not that I recall did I ever have any opposition from any congressman. I occasionally would have some questions that were very difficult to answer, and sometimes there was no answer to some of the questions, but, in general, I can only recall friendly responses and friendly relationships with the congressmen and senators.

Q: Could I go off in slightly a different tangent here now [tape recording slurred] Sloan-Kettering that you were a member of from 1954 on?

DR. HELLER: Yes. The last several years of my position as Director of National Cancer Institute, I found that I was serving on a number of boards and committees throughout the country, one of which was the Sloan-Kettering consultant group here in New York. Dr. Rhodes, who was then Director of the Sloan-Kettering Institute, was very anxious to have liaison with the Public Health Service, particularly the NCI, and felt that my service as a member of his consultant group would be useful to the consultant group and to SKI as a resource person. This suited me fine, because, in turn, I was able to keep up with what was going on at SKI and to be aware of the attitudes and activities, so it was helpful to the NCI, in turn. So I welcomed this opportunity to serve as a member of this consultant group.

Q: What sort of things did you do when you were a consultant?

DR. HELLER: Usually the programs of the SKI were presented to the consultant group, and we were asked to comment on them and to criticize them and to make suggestions. Frequently we were asked

as to what was going on at the National Cancer Institute that might be relevant or germane to the activities of SKI.

Q: As a result of this activity, did SKI ever drop any of its projects, let's say, and institute some other ones?

DR. HELLER: Not that I know of as a direct result of anything I may have said or failed to say. Of course, I can't be sure of this because I was never aware sometimes of what administrative actions were taken after these consultant groups met. Quite often the group as a whole would take a viewpoint which Dr. Rhodes would take to heart and change programs up at the SKI, but I don't know of any that I personally, as a result of my knowledge of NCI activities, caused any change in SKI programs.

Q: Finally, how did it come about that you were asked to become the president of this Memorial Sloan-Kettering Cancer Center?

DR. HELLER: Dr. Rhodes died suddenly in August of 1959. Immediately the board of Memorial and of Sloan-Kettering set up a committee to find a successor to Dr. Rhodes or to find someone to come and serve. I presume they went over the list of individuals who had had experience in cancer research and cancer control, and my name must have appeared on that list. I was approached in the spring of 1960, and representations made to me. An attempt was made to find out if I would be interested in this activity. I said that I was interested, but, of course, I was an officer of the Public Health Service and accordingly, the Surgeon General had to make the decision as to whether or not I could accept a job, because I was not eligible for retirement until the fall of 1960.

So the board asked me to confer with the Surgeon General and find out what his attitude was. I did, and the Surgeon General said that he thought it would be in the interest of the Public Health Service if I could take this, and he'd be willing to approve a retirement in the fall of 1960, but with a leave of absence beginning July of 1960 until my retirement took effect in November of 1960. He did this. I reported to the board, and they very promptly offered me the presidency of Memorial Sloan-Kettering Cancer Center.

This, of course, was essentially an administrative position, and my job was primarily coordinator of the activities, which had to do both with research, with control, and with all of the facets in cancer treatment diagnosis.

Q: Was it similar to what you were doing at NCI?

DR. HELLER: Very similar to what I was doing at NCI.

Q: Did it differ in any way?

DR. HELLER: Yes, it differed in that I didn't have quite as direct a responsibility to cancer research at Memorial Sloan-Kettering as I did at Bethesda, although I was not intimately involved in the research at Bethesda. I had here, when I first came in 1960, considerable responsibility without the necessary authority. That was one of the problems with this particular job.

There was considerable difficulty in this position, in that the basic research people and the clinical people were not very friendly and, in fact, very jealous of each other. This created problems, as one could imagine, in research, because the clinical people tended to look on the laboratory people as sort of handmaidens and technicians, and the laboratory people looked on the clinicians as people who were interested primarily in making money and didn't know anything about research.

Q: Did you try to get them together?

DR. HELLER: My job was to attempt to get them together. Within certain limits, I succeeded in some instances. In some others I didn't succeed. But this was one of the real tough jobs that I'm sorry I didn't get an opportunity to see through.

I became ill in May of 1963, and this meant that I was not physically able to continue as President of the Memorial Sloan-Kettering Cancer Center, so I resigned effective January 1, 1964, but continuing as Vice Chairman of the Memorial Sloan-Kettering Board and as consultant. I can continue until 1970 in this capacity. It's a long and complicated situation up here, many details that I am not free to discuss, of course, some that I can, but suffice to say it is a complicated and very difficult situation. But I've learned a lot and I enjoyed it.

Q: I have seen you down at the Cancer Institute or down at NIH a couple of times in the past year. What do you do, still consult for them?

DR. HELLER: Yes. I'm on a committee, the Cancer Control Advisory Committee, to Dr. Lewis Robbins of the Public Health Service. I'm also on the International Medical Research and Training

Center Committee. I believe Dr. Dave Levitt is the executive secretary at Bethesda. As the word implies, International Medical Research and Training Centers are essentially microbiological centers that are operated by universities in foreign countries. For instance, the University of California works in Malaysia at Kuala Lumpur, and undertakes research and encourages, stimulates, and supports research through the ICMRT grant to the University of California, trains people at California and sends its own people from California to Malaysia for training in tropical diseases. Similarly, LSU has a center in Costa Rica; Tulane at Cali, Colombia; Johns Hopkins at Calcutta; University of Maryland at Lahore, Pakistan. These are very interesting centers and quite some fine work is being done there.

My interest now has grown to chiefly international. That's not quite correct. I'll say this, as time has gone on, I find that my interest is more in the international field, and I feel that I can contribute more, perhaps, in that area, due to my disability and consequently inability to work in a very busy administrative position in this country.

Q: I've been keeping you going now for about an hour and a half. Maybe we should stop if you're getting tired. I think there's just one real thing I'd be interested in, and that is if you could tell me what kind of significant changes or changes in direction that you've noticed in the Public Health Service or NIH during your career. It's been about 30 years since you were in the Public Health Service.

DR. HELLER: Of course, the Public Health Service had changed significantly since I entered it, in terms of size, in terms of financial support, and in terms of programs. I think that in terms of programs, I have observed a shift in emphasis. Instead of being more interested in infectious disease, as it was when I first entered, the interest perhaps now is more in the chronic disease field and in general problems of public health, such as medical care and the like, rather than in specific disease entities.

I think that there's been a change in the type of man entering the Public Health Service. When I first entered the Public Health Service, the average man interested in going in the service was interested in public health. That's not necessarily true now. The route of entrance to the Public Health Service has been either through the hospital division and through the National Institutes of Health, and I guess that still pertains now. Back in the days when I entered, it was primarily through the hospital division and through the several Public Health activities, such as tuberculosis and venereal disease control.

Q: I see. When you say through NIH that means through research channels?

DR. HELLER: Through research channels, yes. Because there is a tremendous interest in research throughout the nation, and many young medical and other scientists know of the National Institutes of Health as a research center, wish to either train there or to work there permanently. Those are some of the things that I've observed. I think, in general, the Public Health Service has improved tremendously. Some of us yearn for the "good old days," but that's understandable as a human reaction. I think it's improved, I think it's done a good job, I think some wonderful people have passed through the Public Health Service, and I miss my contacts in the Service and enjoy getting back down to Bethesda and to Washington, seeing old friends and seeing what is happening. I feel that I'm out of the stream of things a good bit, although I get some of the publications and keep up through seeing old friends either here or in Washington and Bethesda. But I have a feeling of not being in the stream of things, and I miss it. This is to be expected, of course. Anybody who is retired is, in the minds of many, on the shelf.

Q: I guess geographically you are at a disadvantage up here in New York.

DR. HELLER: Yes.

End of interview