INTERVIEW I

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INTERVIEWEE: JAMES A. SHANNON

INTERVIEWER: STEPHEN GOODELL

PLACE: Dr. Shannon's Office, National Academy of Sciences, Washington, D. C.

Tape 1 of 2

G: This is an interview with Dr. James A. Shannon, presently the special adviser to the president of the National Academy of Sciences and formerly the director of the National Institutes of Health. The dates would have been from 1955 until September of 1968.

I'd like to begin by just asking you to provide some sort of a background sketch of yourself, after which we can then go into some of the material.

S: Okay. Well, I was born and brought up in New York City and spent the bulk of my time there, except when I was away at school, until about 1946. I graduated from the College of the Holy Cross in Worcester in 1925 with a Bachelor of Arts degree, went to medical school, New York University, graduating there in 1929, had my hospital experience in Bellevue for two years and then joined the department of physiology [at New York] University in the summer of 1931. I stayed in that department successively as an assistant instructor and assistant professor until December of 1940. I then accepted a position as director of the research service in the Third Medical Division, a New York University affiliate of Goldwater Memorial Hospital. This was on Welfare Island in New

York City. I stayed there during the period 1941 through 1946, accepted the professorship of pharmacology of New York University, 1943 to 1944--I'm not quite sure of the date--but because of my involvement with war work deferred actually occupying the chair and indeed never functioned in that capacity. In 1946 I joined E. R. Squibb and Son as director of the Squibb Institute for Medical Research. While with Squibb, 1946, spring, to 1949, also in the spring, I continued as director of the Squibb Institute but also was on the board of directors and on their executive management committee.

During the spring of 1949 I was invited to come to NIH as an associate director of the Heart Institute in order to develop their intramural research program, and indeed I joined, first as a consultant and then as a full time associate director. I would guess it would be in June of 1949. I completed three years of work there, during which time the basic staff of the Institute was assembled. Then I was invited to become associate director of the National Institutes of Health--again, this would be the summer of 1952--my primary responsibility then being the development of the intramural research program, with specific reference to the introduction of clinical investigation with the newly opening clinical center. This opened sometime, I would guess in the spring of 1953.

In 1955 I replaced Henry Sebrell, who was then director of the National Institutes of Health, as the director of NIH. That would have been around about the first of August, 1955, and I remained in that position until September 1, 1968. During this period in the Public Health Service and various positions of the National Institutes of Health, I was a commissioned officer, and a commissioned officer normally retires on the first of the

month following his sixty-fourth birthday, mine being August 9, being born in 1904. Thus my normal retirement was September 1, 1968. I was invited to stay on for another year or two in a sort of a general, indefinite way, first by Secretary [John] Gardner, then by Secretary [Wilbur] Cohen. I elected not to, because it seemed to me that there were vast changes going to take place at NIH as one joined education with the science function, and I felt that whoever organized this should be there to run the operation. In other words, I didn't think it was suitable for me to create an organization simply to turn it over to somebody else to run. It's all right to live with your own mistakes; it's not all right to pass them on to somebody else.

So now, during the summer, or actually very shortly after the first of July, Dr. Seitz, that's Frederick Seitz, president of the National Academy of Science, has invited me to come to this position. Actually, I'm here being supported by a grant from the Ford Foundation that is particularly set up to cover transition from high position in the federal establishment and integration into the private sector. This is a two-year grant. I don't have the foggiest notion what I'll actually do. I suspect I have five or six years more active life, and this is one of the problems I have to decide. So I think that sequentially covers the major facts, and I think what you can do is to get a quick retake from Mary before you leave and that will give you the nuts and bolts.

G: Okay. The format of this interview, as I would like to pursue it, is to deal not so much in a chronological way with topics, but to deal specifically with topics as they might either interest you or as they warrant some sort of review. Perhaps we can start with my asking you to describe the origins or the genesis of the health research facilities we were talking

about before the tape began.

S: You mean the specific legislation that had to do with [health research]?

G: As you were involved in it, as you observed its progress and so forth.

S: That's very difficult. You mean the specific program for the National Institutes of Health that dealt with the construction of non-federal facilities?

G: Well, perhaps you'd like to start with the history of the Fogarty International Center.

S: I suppose the beginnings of that would go back to the early fifties, when in the development of a research grant program there was some support of research on an international as well as a national base. I might say that the biomedical sciences differ here from the physical sciences, actually physical and social sciences, in that characteristically both medicine and biomedical research has been international. Many foundations, the best example of which is the Rockefeller Foundation, have supported research and medical education, some types of medical service, for decades. This to the point where the only modern medical school in the Far East was Peiping Union, which was established sometime shortly after World War II and totally supported by the Rockefeller Foundation. So this is important background, because in supporting internationally some research activity, even on budgets that were rather rigidly controlled initially, one was following a pattern that was long accepted as a good pattern.

Disease problems [and] disease models don't necessarily obtain easily available suitable population groups within the United States, and it's quite frequently necessary to move out of the United States to obtain the population group for the problem. A very good example of that right now that I think will pin this down very specifically [is that]

this country today is terribly concerned about hunger, poverty, starvation and its influence on human development. We have been concerned with this as a problem of research, I would say, for better than ten years. A great deal of animal work has been done, and this led about five years ago to setting up a series of studies in Guatemala and some of the villages north of Bangkok where it's possible to supplement the food of some individuals and not the others, dealing with the whole village groups. This is possible because you don't do positively wrong to any group, but you do go in and do positive good to others.

Now the purpose of this is to find out whether you could find, in terms of measurable human development, a difference in that group that was supplemented as opposed to those that were not. This was very easy to show in animal experimentation, very difficult to show in human experimentation. Now I say that those studies will not be in for another couple of years, but we expect they will indeed show that food deprivation and, more particularly, specific protein or specific amino acid deprivation, as well as caloric deprivation, will manifest itself by a delayed intellectual development. Now this type of thing could not be done in the United States. This is an example of going outside the United States for specific population groups. So as I say, NIH has been involved fairly extensively in international activity since the beginnings of its grants program.

Then in the late fifties there was new legislation that made available what are called Public Law 480 funds. These are U.S. owned currencies for purposes of education and research. This permitted us to use U.S. owned currencies rather than hard dollars to substantially expand the program. Now that legislation had its initiation in a bill

submitted by Senator Hill, Lister Hill from Alabama, that proposed the establishment of an international institute for medical research within the institutes of NIH, very broad authorizing legislation. But as it went through first the Senate and then the House, the attrition of authorities was so great that the only thing that ended up was the authorization to use U.S. owned currencies.

G: With no appropriation?

S: Oh, no. These funds were appropriated by the normal appropriation process. There was no limitation on the appropriation. Now, the programs that developed out of that made it abundantly clear that the application of modern biomedical science could be greatly facilitated in this country, as well as abroad, if we had further knowledge of specific situations overseas, and indeed if we were able to engage the interest in a collaborative fashion of some of the world leaders in the medical sciences. Now this was discussed with Mr. [Melvin] Laird. Mr. [John] Fogarty, Mr. Lister Hill, oh, I would say as early as the fifties, and was made the subject of a serious speech proposal by Congressman Fogarty some four or five years before his death. I might say all of this history is available in the appropriation discussions that led to the authorization and the establishment of this center within a very broad, general authorization to NIH.

The department at that time was not inclined to press for this, nor indeed was the Congress. But with Fogarty's death, actually the first day of the opening session of the last Congress that met in 1967, there was an upsurge of interest in trying to find some way to memorialize the very substantial contribution that Fogarty had made to health, Fogarty having been chairman of the Appropriations Committee, except for a period of

two years during the beginning of the Eisenhower Administration, from the later forties right through the time of his death. The one who pressed for this hardest was Congressman Mel Laird from Wisconsin, who was the ranking Republican on the Appropriations Committee, or the subcommittee dealing with NIH, but he had the complete support of Congressman [Daniel] Flood, who again was a very close friend of John Fogarty's. So that out of these discussions before the appropriation hearings there emerged the desire to do something for Fogarty which crystallized in the form of an international center for advanced study. The Appropriations Committee report carried language in it that directed the NIH to establish such a center and provided a small amount of planning funds.

The mechanics of government are such that when you set up a new operating division this obviously has to have the approval of the executive branch, and in the fall following Fogarty's death we made such a proposal, calling it the John E. Fogarty International Center for Advanced Study. We made a proposal for a construction program for a substantive program that would contain funds that would permit us to obtain the benefit and advice of visiting scholars, to conduct conference programs. And when I say conference programs, the idea was to select topics of broad interest and make these working sessions out of which program actions could be taken, where groups would meet sequentially over a period of three or four years, and then, the subject having been brought to a point that seemed adequate, it would be dropped and other subjects would be picked up. Then finally it was to serve as a center for the staff services that were utilized to ride herd on our international commitments.

This basically replaced an office of international research that had, in addition to some of these functions never fully defined by congressional intent other than through making funds available, a number of international activities. We thought it was wise to transfer those operating programs to other divisions and leave the center a fairly clean-lend operation, without undue operating functions. It does conduct a fellowship program, and it does conduct a conference program. Actually the first conference, one on medical education, is going on today, and it is serving as a focus for information and monitoring of international commitments.

So this went forward as a proposal, was accepted by the Bureau of the Budget and subsequently by President Johnson. It was announced in one of his messages to the Congress. It then, since that time, has had a formal place in the budget of NIH, and although the budgets currently are very stringent, it has enough operating funds to get its programs off the ground during the coming year. It will immediately be housed in a place called Stone House at NIH, which is the house of one of the owners of half the property which now constitutes the National Institutes of Health, and it has planning funds to develop a suitable structure for a conference building.

Now, I might say that the Washington area in general, with the position of the U.S. as it is in world affairs, is far too lacking in this type of general enterprise. I don't suggest that this will satisfy all the needs, but at least it will go a long way to satisfy certain of the needs for a conference center that is dedicated to a very broad program of great social importance to the world at large. At the present time these conferences are held in motels, in Airlie House in Virginia or Williamsburg, and this is a very

unsatisfactory arrangement. So that I think this will go forward and should make a very substantial contribution. So that's about the present stage of it.

G: When this--

S: Can I ask, now is this the type of [information you want]?

G: Surely.

S: Okay.

G: I'd like to press on a couple of points that you suggested. When this proposal went to the Bureau of the Budget--and I gather that this is the normal process, that they would screen these kinds of things before taking it to the President--was this accepted unequivocally?

S: Oh, no. I think the initial reaction of the Bureau of the Budget [was that], this was just another NIH gimmick to get more money. I think it took a fair amount of persuasion to get them to accept it, and part of the argument that we used was that they had to make a decision. They either accepted it, or the Congress would force it on them anyway.

G: When was the first proposal brought to their attention?

S: I can't be sure, but it was some time during the calendar year of 1967, which is the year Fogarty died. I suspect we must have discussed it with them informally during the spring and summer and made a formal proposal in the fall. It would have been included in the preliminary April budget for the following year, submitted in April 1967. That budget is just a general outline of goals and objectives and without particular restriction on dollars, because it's assumed that you cover all the programs you'd like to further in that initial budget. Then the hard bargaining comes in the summer and fall when you finally get down to the working budget. So it would have been uncovered probably in April and

discussed in summer and fall. I would suspect when things that are contained in the budget receive special presidential attention these discussions go right on up through December, but I can't recapture the time better than that.

G: Were you involved in any way in negotiating with the Bureau of the Budget?

S: Yes. Oh, yes.

G: In your capacity as director?

S: Yes, yes.

G: Could you describe the process that one goes through?

S: It changes with time, and its undergoing another change under the new director. Actually, it depends entirely upon the style of the director. I'll give you examples. I first became involved with the Bureau of the Budget as associate director of NIH, which, as I say, I became in 1952. At the time Henry Sebrell was director. He presented and discussed the budget for 1953 and 1954, 1955, and then I took over in 1956. Well, during the budget hearings in the Bureau of the Budget in 1953 and 1954 this appeared to me to be a catastrophe, because at the time, Dr. Sebrell brought down all the Institute directors and they all claimed everything. It was a very disordered hearing both years. The Heart Institute generally took a very broad view of the vascular system and its influence on organ function, and consequently elected to assume that their area went far beyond the vascular system. Neurological disease and blindness, contrariwise, took a very broad view on the central nervous system, both the voluntary and involuntary. And insofar as the involuntary nervous system has a profound influence on circulation, distribution of the circulation, relationships of the cardio and respiratory systems, they

would encompass large areas of that. So that the whole proceeding was ridiculous.

When I became director of NIH in 1955 I made the unpopular decision that the budget hearings had not been very profitable as I had seen them operate over a three year period. There was squabbling among the Institute directors, in a nice way but nonetheless squabbling. Out of this did not emerge any broad goals for the operation that really had substance and could be discussed in a serious manner that would raise the argument to quite another level. That is, "What would be the total resources that should be available for the pursuit of science, be it research or graduate education?" And only when one had some concept of the total resources, then, "How should this be allocated among the operating divisions?" So that in the thirteen years that we negotiated with the Bureau of the Budget when I was director, all the negotiation took place between my staff and the staff of the Bureau of the Budget. Well, that answers your specific question.

G: Have you been able, in those thirteen years, to observe any changes in the response, either by the Bureau of the Budget or by the President himself, to the interests of NIH in terms of its program requests, money requests, and so forth?

S: I think I can quote maybe three episodes and one general circumstance, or two general circumstances. I was convinced when I became director of NIH that support of biomedical sciences was pitifully small in relation to economic and social costs of disease, and that science had a great deal to contribute, indeed was the only source of information that could curtail these inordinate costs. I was extraordinarily fortunate, because at that time Marion Folsom had just replaced Mrs. [Oveta Culp] Hobby as secretary of HEW [Health Education and Welfare], and after the budget was apparently

closed out in August of 1955, Dr. [Leonard] Scheele, who was then surgeon general, and I went to Marion Folsom and pointed out that this was a very unsatisfactory budget. Folsom had been treasurer of Eastman Kodak and as such in their organization had responsibility for research and development.

I recall in our first discussion with him, he said, "You know, Shannon, I don't know how good your operation is, but I do know this from my own industrial experience, that the greatest waste there can be in the science-based industry is poor research and development." He said, "Before I'll even listen to any discussion about increased funds, I have to find out how sound the operation is. Because for all I know, and I'm being perfectly frank and honest, maybe it ought to be curtailed rather than increased." We said this was fine with us. I don't know what we would have said if we didn't like it, but we would have done it anyway. But our attitude was, and my impression has always been, that the programs were so good that almost to inform was to convince. So we were delighted with the opportunity.

He had at least two, it may have been three, groups to come in and spend a day or two looking at different parts of the program. These people were primarily people drawn from industrial research and development, some from the pharmaceutical industry but also others from other elements of industry, who he had reason to believe could reach mature judgment on the net worth of the program, the net worth of our estimation of opportunities. Meanwhile, we were carrying on a dialogue with Folsom, who had an interesting approach to a problem that he considered seriously. He would pick it apart like a terrier does. You'd find yourself coming back repeatedly to the same problem, as

though he wasn't completely convinced and wanted to clear it up before he'd be able to go on. I saw Folsom with Surgeon General Scheele or alone I would guess on the average of once or twice a week for the next six to eight weeks. Meanwhile, he's having the operation looked at by external consultants.

So in September of that year, he said, "Well, I think you ought to know that my consultants tell me that the operation is good, the programs are well conceived. They're inclined to agree with you that the amount being spent for research is much too low as contrasted with the problems it's seeking to solve." And he said, "I would propose that we go forward with an attempt to remedy some of these deficiencies. What I would like you to do is to develop a budget that might be the first step in this direction. There's no point in trying to solve all the problems in a single year, but let's make a substantial beginning."

So he reopened the budget, which at that time had a base of about ninety-seven million, and in round figures added about twenty-nine million to it, which was an unheard of increase at that time, close to 30 per cent. In presenting the budget to the congressional committee he said himself that this was the first step in correcting a deficiency that he felt badly needed correction, and that for now and the years immediately ahead that the limitation on funding should be more the limitation of opportunity rather than the limitation of dollars made available, but he wanted the Congress to understand that his proposal was one step. Now this really opened the gates, because the total presentations were so convincing on that round that between the House and the Senate they increased the budget that Folsom had presented by some additional fifty to sixty million. So in that one year there was close to a doubling of funds available.

Now the second thing I want to say is Eisenhower's reaction to that as reflected in the Bureau of the Budget. This really irritated him, because he thought he had been very generous in letting Folsom ask for this, and then the Congress tops him by fifty or sixty. We're talking about small sums at that time. But that established a pattern for all of the period of the Eisenhower Administration and the beginning of the Kennedy Administration, the administration proposal was identical to the previous year's appropriation. It set up a situation wherein the Congress took over, and they increased the budget to the extent that they felt was [necessary]. In other words, the executive branch abandoned all leadership and left it entirely in the hands of the Congress. It was because of this that people like Fogarty and Hill then became so important in the development of the program.

Now, the second episode and the third episode--first, I pointed out our relations with Folsom that kicked it off, then the response of the Congress and the response of the executive branch to congressional action. When Kennedy came in, and by this time we had Jerry Wiesner as science adviser to Kennedy, we had an Office of Science and Technology and the President's Science Advisory Committee. I had been sitting with the President's Science Advisory Committee as a consultant for about four years, three years maybe.

I might say and pick up from here, after Folsom left [Arthur] Fleming came in. Flemming was not helpful in evolving more dollars, but he was in broadening authority, because at the time Folsom left, he had commissioned a very broad report on NIH called the Bayne-Jones Report. I can't recall its technical title. He passed that over to Fleming

for implementation, and I might say, without comment. The thing that Fleming did was to pick up where Folsom had left off and broaden the authority of NIH, one, to make grants in support of the general operation of institutions of higher education, so-called general research and training grants; [two], to implement research facilities construction at a new level of activity under specific authorization. While he was generally supportive of the activities of NIH, he was not much of a help in increasing dollars.

Actually, I remember Folsom--he had a very mild stroke in 1956 or early 1957--was terribly upset by the unwillingness of the executive branch to take leadership in the further development of the field. I think one of the reasons why he left was because he could make no impact on Eisenhower or the Bureau of the Budget of these programs that he was so interested in. Now, realize that this was an extraordinary thing. Folsom's know-how in the Treasury Department was largely related to such broad general social programs as the evolution of a sound Social Security system. The brief experience as secretary committed him to health, and he has been involved in health ever since and has done some of the better work in lending his name to the examination of community health programs and the like. He's never left that field since he was secretary. But he really resigned, I think, more because of a feeling of frustration in not being able to do what he wanted to in health than because of his stroke, although this was the reason. The stroke really had very little residue.

Then Flemming came and followed through, not with dollars but with further programs. When Kennedy came in we pointed out that we had programs that were now getting quite large, really were very difficult to manage on a year-to-year basis with

simple Congressional increases. We felt that many of them ought to be replanned, but this would require executive initiative. So this fact and Kennedy's interest in mental retardation which led to the creation of a Child Health and Human Development Institute, we took advantage [of] then, also, to set us over an institute for general medical sciences and to recast some of our other programs. This is some of the executive planning. We had every indication that he would indeed take leadership, but when it came down to the hard nut of dollars what happened, beginning in 1962, is he would indeed provide some additional money for these new programs but not for the general programs that are already established. So [from] 1962 through 1965 or 1966, the Congress maintained domination of program substance.

You see, when Kennedy came in, that was 1962, the total budget was somewhat more than five hundred million [dollars]; when I became director it was ninety-seven [million dollars], so it had taken about a five-fold change in that period of time. And we had added general research and training authority; we had added construction grants. We had begun collaborative research on medically important problems, some of the applied and developmental type activity, and by that time the bulk of the internal mechanics of the program were very well established. But through 1965 or 1966, 1966 being the first Johnson year, there was not much of a different approach to the problem than had been before. The programs, both in terms of total dollars and program emphasis, was as a result of negotiations with appropriations committees rather than within the executive branch.

Now--

G: Could I interrupt for a moment?

S: Yes.

G: Can you offer any explanation for this lack of executive initiative?

S: I really can't. I couldn't at the time. We pointed out to Jerry Wiesner repeatedly--I knew Jerry personally very well so this is a little bit easier--why couldn't Kennedy take credit for increasing the budgets? The budgets are going to be increased anyway, but let us have a more orderly approach to budget increases where we could have good staff work that would support the mechanisms, the field of operation and the like. It probably, I think not probably, it was totally because of attitudes that developed in the Bureau of the Budget that just precluded them looking at NIH rationally. I know that NIH was an irritant to them, and they would have nothing to do with trying to contain it by positive action. They tried to contain it by negative action. This wasn't because of a dislike or a lack of understanding of science, because meanwhile they gave very preferential treatment to the National Science Foundation during the same period of time.

We saw a great deal of Flemming. This is the interesting thing. You see, when I was director I had an extraordinary intimate relationship with Secretary Folsom, Secretary Flemming, with [Abraham] Ribicoff and, indeed, with [Anthony] Celebrezze, and this carried right through John Gardner and [Wilbur] Cohen. So that this was not because of lack of access to departmental leadership, and by and large they repeatedly proposed to the Bureau of the Budget very substantial increases in the budget and repeatedly were cut back. So this is not NIH trying to go it alone, external to the structure of the department. This is an action of the Bureau of the Budget. Although

administrations change, such as going from Eisenhower to Kennedy, the forces in the Bureau of the Budget are the same. Whereas Kennedy, as I said, provided funds for new programs specifically, he did not provide for the others, despite our pleas and the support of Jerry Wiesner, pleas to Kennedy directly.

I knew the Kennedy family. I knew Kennedy as a senator. I advised the Kennedy family on the creation of their foundation, so that there was a [connection]. I knew Sarge Shriver intimately and his wife, Eunice, very well. Alice and I had been to their home for dinner. I mean this was a very informal [relationship]. All of the bureaucratic lines were clear; the personal contacts were available, so that you could argue as persuasively as you're able to. You come down to the hard nut of it: the director of the budget, who sets forth the fiscal policy of the nation and how the resource allocations ought to be made, just was not convinced that this was wise. I still think it was a terrible decision for them to [make]. Well, I'm prejudiced, obviously.

G: Does this characteristic that you describe in the Bureau of the Budget continue regardless of who might be its director or associate director?

S: Pretty much so. It still obtains today. Let me move on to Gardner, who followed two very nice people and two very effective administrators but two very poor secretaries; that is, one, Ribicoff, and the other, Celebrezze, Ribicoff being a former governor, Celebrezze being a former mayor. He was followed by Gardner, who was a foundation executive and basically a Republican. Gardner left about a year ago last February. We had planned over the whole fall, and Gardner was intellectually and emotionally committed to really broaden the science base, not in an undifferentiated fashion, but we had picked out five

areas that really warranted expansion.

He felt that the time was right for a broad program of departmental research in the engineering sciences. We had enough experience with the behavioral sciences to establish really broad programs that were desperately needed there. You felt that NIH could be used to spearhead the federal establishment's approach to development of population policy and fertility control and the like. There were certain areas that are broadly deficient, such as the environmental health sciences. Again, the logical place to start is there. Then having had prior legislation in heart disease, cancer and stroke, it was perfectly obvious that the project system of support that we had made available in these important areas was not going to give us the answer. What we needed were some large organized programs, which is tantamount to setting up some additional research institutes.

During the fall, we gave Gardner enough information so that he was able to grasp these program designs and see their net worth. He said, "Let's let the budget go through the normal process of the Bureau of the Budget, and then I'm going to make a special plea to Johnson himself on these things." He said, "I can't fight this through the hierarchy within the Bureau of the Budget." He had, together with these, programs in the biomedical sciences, and he viewed it as a long-range thing. If you're going to cut health services, you have to be able to deal with disease in a more definitive fashion, which means you need organized research of a developmental and applied nature superimposed upon the undifferentiated base to provide this type of information. I can't recall what his education programs were. But the budget was really delayed last year, incidental to this

fuss between the President and [Wilbur] Mills on a surtax savings and things of that sort, so Gardner didn't get a chance to sit down with Johnson to talk about his budget aspirations, his program aspirations, until fairly late in January of last year. He went down and spent a weekend at the Ranch and called me.

I came down to see him on Monday, and I've never seen such a depressed man. He didn't get a dime for the health programs he was pushing. Instead of getting some additions in education, he had some of them cut further, and I think it was this experience that probably led him to leave. Now he fully appreciated that Johnson was in a box, with Mills on the one hand and a budget getting out of control on the other. With the war in Vietnam [and] increasing costs of programs of a domestic nature, he just couldn't [get the money]. So the man was in an impossible situation. But in summarizing it in his own mind, as I try to recall the conversation that I had with him, he just had had it. He didn't see how he was going to accomplish the things he felt he ought to accomplish within the structure of the federal establishment. He felt that maybe if he left . . . And I'm sure that this position with the Urban Coalition was available to him any time that he wanted it, so he left as secretary and directly took on that. So that this lack of executive initiative and the inability of secretaries to influence the Bureau of the Budget, I think, lost the federal establishment two of the best secretaries HEW's ever had.

G: Is it a matter of weighing of priorities?

S: Oh, yes. It's more than that, though. I think I can view the thing a little bit more objectively now. I'm not fighting for specific programs that offer a specific budget. I've traveled much more since I left in September than I was able to there, because I'm fairly

footloose at the present time. While I'm terribly distressed at what is happening in our universities, what's happening in the support of science, I've come to the conclusion--it's an oversimplified one, I realize--that the basic problem we have today, and the basic problem that our secretaries of HEW had to operate over that ten or fifteen year period was that there were no firm decisions on very broad social policy. There were no national commitments other than to do good. There were multiple programs, but we haven't been able to devise a framework within which one can view these programs intelligently. I would say that this is one of the main deficiencies of the Johnson years. His record in social legislation was fantastic, [but] we should have come out with more than we did. I ascribe that not to deficiencies in Johnson, but as he interpreted the priorities he must have been obsessed with the disastrous situation in Vietnam and what it was doing to the country.

But as I see it now, as they say, a year later after he made his decision not to run, a hell of a lot of water's gone over the dam since that time. Talking to disenchanted students at the university and at a medical school, if I can interpret their unease, they're basically an uncommitted generation, and they have a broad appreciation of the increasing involvement of the federal establishment in almost all the things they do. They don't see emerging out of the federal establishment a broad philosophy that can really be visualized by them as a series of related causes that they can adhere to, so their tendency is to float. They've been hearing for three or four years about all the needs of the cities, but there are no programs. And indeed, in the legislation there were no programs and no priorities. There were authorizations, but very little follow through.

Like health research facilities construction, there was an authorization but no follow through.

So we find in the universities--and I think this is the deepest source of concern I have--a new left that is out to destroy beyond any doubt. At least this is my conviction. We have always had a right. These are committed people. They have a firm purpose of what they want to do. But the bulk of the students are in the middle, and I think they become disenchanted because they cannot visualize in their own mind what our government is going to do with them, for them, or what opportunities there are going to be. So that they tend to be swayed very easily.

This is true in health. I got together for John Gardner one time all of the federal agencies that had programs [on health] and, God, they're all over government, all of the agencies that have medical research programs. Let me give you this. (hands interviewer a paper) But the important thing is there's no way of pulling science together, or even more important, science and education together for central decisions by well-informed people. But rather our programs in any one year tend to reflect what happened the year before, with no ability to take a totally fresh look at it. In education, we have programs at every level of education from Head Start programs to post-doctoral education, the whole gamut.

G: Except, as has been recently suggested, there are very serious gaps between the Head Start program--

S: Well, there are gaps all over. I'm just saying as a federal establishment we have not looked at education and tried to find out what are the unique roles that the federal

establishment can play in education, viewing education as part of a very complex system. But we've done a big patchwork job, and, as I say, this isn't enough. (reads a document) Oh, this is the distribution of the different departments and agencies involved in biomedical research. If you take medical services it's even broader, because you add to that, of course, all of the programs, the Office of Economic Opportunities, Social Security and the like. But I don't think that our bright youngsters are unaware of the fact that we have not made a selection of priorities, and that they don't perceive how these programs are viewed.

The structure of our government is such that the allocation of resources should be possible from some type of central source. We should be able to look at the eighty billion being spent for defense and see what the relationship of that is to programs for health, for education, for welfare and the like. We should be able to take a very hard look at the programs in support of research as opposed to the programs in support of education, the programs supporting individuals in research as opposed to the programs supporting institutions that are at the heart of the education process and produce this audit. But except for a harried and overworked and highly structured and highly fragmented Bureau of the Budget, it's impossible to do this. So these programs leave the executive branch as individual programs. Then they are spanned out or fanned out to the Congress, and they are viewed by individual congressional committees. There's no ability to provide any sort of overview.

Now, I happen to feel that when you use large amounts of public funds it should be possible to tie these to public purposes, social purposes. But these funds are allocated

by the Bureau of the Budget, and with some understanding that they have a social purpose. They are viewed in the congressional committees, again, with someone to say that they have a social purpose. But [with] an NIH budget, which constitutes the largest single budget for biomedical research but which is only about 40 per cent of the nation's effort, its ridiculous to try to assess the net worth of 40 per cent as contrasted to the--it would be possible to assess the net worth of 100 per cent and then view it.

So these are deficiencies that, as I said originally, probably lead to an unsatisfactory operation of the Bureau of the Budget, at least as I've seen it as a program operator. As the lack of these broad philosophical conceptions continue to be absent from the federal scene, I feel sorry for the youngsters of this generation. I can understand why, having no causes to adhere to, they are restless. Of course, I think that what's going to happen in a couple of years is going to be forced upon them. Very hard decisions are going to have to be made on this military-industrial complex that is becoming so horrendously large. Now I think that the students are going to be concerning themselves with that rather than Vietnam or no Vietnam. I think this is going to be brought out as a terribly important issue.

G: From the students' point of view--if I can interject a moment coming back to this weighing of priorities as well as the other things that you've suggested--viewing areas such as research and health, research and demonstration, program implementation and so forth, these vital social areas, in terms of the morality or in terms of the social values of students and other concerned, idealistic people, weighing this against the kind of expenditures just in sheer money terms in the so-called military-industrial complex or the

Defense budget, which has reached gigantic proportions of eighty billions of dollars, I would offer that this is at the crux or at the heart of a good deal of the kind of dissatisfactions you talk about.

S: Yes. But the thing that troubles me, you know, is the students really seem to be totally ignorant of either what the crux of the matter is or what they can do about it, and the result is they become confused and they strike out. I've been particularly troubled about it because I've agreed to give two commencement addresses. One I was roped into. My daughter's on the staff of the medical school at the University of Oregon, so this I have to do. This won't cause me any trouble. It's a professional school and so I have no problem. I accepted another incidental to a degree at the University of North Carolina. Now, when I accepted initially I thought that this again was the professional school. It turns out not to be. It's the university.

I've been searching around in my own mind the last two or three weeks trying to find what the hell I can talk about. I don't have broad competence beyond the biomedical sciences, and particularly in education, and you're in a situation where you have these kids that are totally dissatisfied without really knowing what they're dissatisfied with. Really, they're dissatisfied with the vacuum rather than anything positive, I'm convinced.

G: Possibly also what they might feel to be the unresponsiveness of institutions to more pressing needs. I'm thinking, for example, of the peace movement continually, after long months of very hard work of organization, spending of money, printing up of pamphlets, and bringing together vast numbers of people which are constantly underestimated by the newspapers and so forth, either in Washington or in San Francisco or in New York, and

then to have absolutely no change, to have the same platitudes, the same kinds of reasons and rationales given time after time after time after time. The dissatisfaction is that people are not being listened to, that the kinds of discontents, which are not, after all, represented simply by the people who will go out and march in the streets and so forth. That's just the top of the iceberg.

S: No. There's a general unease, general dissatisfaction. This is what troubles me, and I think that the federal establishment is in a unique position to provide the programs that can set these kids on fire instead of having uneasy, discontented people who are fighting with their own administrations. Hell, it's the only thing they have to fight with. If you can't come to grips with your own administration, you can't come to grips with the federal establishment.

But I don't think there's any doubt that one of the things that draws the fire of the students are these controversies over black students, black study programs, things of that general sort. I think this is unfortunate. It's true. [There was] a very interesting editorial in the *Washington Post* that said the Negroes want black study programs that will produce for them a glamorous past. Well, it's not there. Now, we may have downplayed as whites the contributions they have made, but assuming that all those things are taken into account, then we're not going to be able to create for them a past that will emotionally satisfy them.

G: Except, as a historian, I don't think that they're unique in this attempt to use history either for propagandistic or other purposes.

S: No. This was an editorial incidental to the University of California at Berkeley setting up

not a black studies program, but an attempt to set up a department of ethnic studies, which would be substantially broader. Granted it's needed, but this will not satisfy the black militants, so this is not a resolution.

G: Well, if I can bring this back to NIH specifically, you might like to make a general comment on this question. That is, in terms of the kinds of response or unresponsiveness of institutions, what is your comment regarding this from within the structure, within government? Are the channels generally open? Do proposals get to where they're supposed to get to?

S: The channels aren't open for broad reform. Now, I was led into a concern for general education primarily because as I saw the programs for medical education, allied health personnel and the like, it seemed to me that this money was being misused. NIH was assigned the general manpower bureau last April 1, so I had a chance to look at this for about five or six months before I left and made very broad recommendations for modification, which the then-secretary of HEW, Wilbur Cohen, felt were not politically expedient at that time.

This is the thing that really gets me down. I don't believe in such sharp narrow judgments that are so time dependent. So that in times of stress and in times of curtailment of budgets, when you should have the most courageous use of allocation of national resources, as I've seen the federal establishment operate--first, when Mrs. Hobby came in, which was then during the Korean period, that was a Republican administration, and now more recently under Johnson, and the same pressures are there--it seems that in a massive bureaucracy such as this, the courage isn't there, or the clear-sighted

implication of actions isn't there, or the ability to move is hampered by this thing that is called political expediency. Too many of our national actions are taken because of expediency.

Now, I realize we live in a political situation. There's no point in proposing something that just won't be sold or that has no chance, unless if by proposing something that you know won't be sold you can change the philosophical base of the residue. So that sometimes it's worthwhile to fight a losing battle that you know will be lost because of its impact on collateral areas. In the Eisenhower reign and the Kennedy reign and the Johnson reign, the only one who really seemed willing to fight a losing battle, and he didn't make many victories, was Kennedy. Johnson won most of his battles. He won all of his small battles. He didn't win some of the big ones. Well, I don't know. I don't want to--I wonder if this is in any way related to what is called the politics of consensus, where these kinds of issues which are politically not feasible perhaps, or at least they're not assumed to be feasible, require additional caution in approaching these kinds of problems. I've also seen this label of consensus applied to Kennedy as well as to Johnson.

S: Oh, I don't think this is uniquely [Johnson]. I think Johnson's been labeled this way, and I think all of our presidents in recent years have tried to operate by a consensus. But when you operate by a consensus, you operate by compromise. As I say, I'm convinced, viewing the federal establishment from the standpoint of an operator, that we do better if we operate with a broad, sound philosophical base. Make the assumption that we're going to lose a lot of battles, but there's a war to be won. So that never having had to

fight for elective office, I can take this attitude very easily. I mean, but I couldn't care less about--that's not true; I would be bitterly disappointed at the loss of a battle, but over the long run these things wash out.

As I say, I take health, I take education, take social programs in general. Let me put it this way: there seems to be no agenda that will allocate resources in a fashion that, instead of trying to do everything will, "This year we'll emphasize this and see if we can't establish these programs on a sound base. Then the next year we'll pick up this area and the next year this area." This is what I mean by sensible allocation of resources against the establishment of a broad, philosophical base. Now, basically this is the way we ran NIH for the fifteen years, sixteen years I was in the front office. But I'm talking now from the standpoint of an operator. But the office of the president is an operator, you know? So there are certain parallels there.

Gee, I think the legislative history of the Johnson Administration was so superb. If we had that additional element, namely some central appreciation of a planned allocation of resources, some type of systematic agenda that would reflect the central thinking in a fairly objective and not necessarily a wholly popular way--I realize presidents have to be elected, but they're elected on the basis of their aggregate activities and accomplishments, not because of the individual one. While I don't think any president can ever get a consensus on all of what he wants to do and how he wants to do it all, nonetheless I think in the absence of that, we have fragmented activities that are relatively nonproductive, which I think we had from Eisenhower, I think we had from Kennedy, I think we had from Johnson.

G: Isn't what you're talking about within the proper domain of such institutions as the Council of Economic Advisers? While it may not be their primary function, certainly it could come under them.

S: That I can talk about.

(Interruption).

[I was asked] to give the distinguished lecture of the AAAS--that's the American Association for the Advancement of Science--this Christmas and chose as the title, "Science and Social Purpose: Some Reflections on Current Issues from the Biomedical Point of View." You can take that. (gives interviewer a copy of the lecture) That's not as it was given, but I rewrote it in Dallas. It doesn't have the figures. Most of the figures are in that book. You'll find them very easily. But I don't think you need the figures to understand the philosophy, because the figures are mentioned enough in the text. But this is the thrust of what has happened in the biomedical sciences, what's wrong, and I think all of which are remediable by it.

Now this proposes for science and education several broad propositions: one, that the health and vigor of the nation as we look forward to coming decades is largely going to be in good or poor shape depending upon how effectively we utilize our intellectual resources. We're past the point of exploitation of material wealth derived from national physical resources. A second proposition is we have no way at the present time of looking at educational programs that nurture the development of intellectuals or utilized intellectuals in terms of research. What is needed is not to assign this to the Board of Economic Advisers, who basically will be politically oriented because they'll support one

or another type of central philosophy, but [to] a group on the same level that will address themselves to the broad issues of science and education. This [should] be composed of full-time people, very well staffed, with limited terms, who would look at national priorities, and out of this attempt to develop federal aims that are reasonable and the phasing of programs.

This in turn would require two things: one, the setting up of cognizant agencies to provide the information and the analysis in broad areas of science and education; and [two], the ability of staff to repackage this type of information in a fashion that is useful for the centralized group, who can look at science and education in terms of the extent to which it tends to satisfy or not satisfy definable social purposes. I think in its own right it should be at the highest level of government, which would be in parallel with the National Security Agency and the Board of Economic Advisers.

G: Would this be in any way similar to what was originally the intent, in another sphere, of the Office of Economic Opportunity, its coordinating function and given the kind of super-cabinet position? You know, it was supposed to have dealt in a coordinative way, in a planning function and so forth. It never achieved that, but its original intent was that.

S: I never really understood it and I never really saw what it did, so I'm just not in a position to comment. On the other hand, I think the Board of Economic Advisers I do understand. I know how it works. The important thing is that once some such central mechanism is set up, then automatically the Congress has to respond by its counterpart, even as they had to respond to the Board of Economic Advisers. So that you can bring into focus, not only in the executive branch but also in the legislative branch, groups that can look at

these things very broadly. I don't think these should be made up solely by scientists and educators. I would like to see some very wise, very broad-gauge industrial statesmen also brought in, because I think the issues, if they're presented in terms of how programs contribute to social purposes, are understandable by non-technical people.

I don't believe in the scientific state, if you will, and I don't believe that the establishment of a department of science is going to solve any of these problems any more than I believe the establishment of a department of health would solve the health problems. The federal establishment had great flexibility to provide for how it implements programs. What it lacks is a capability of developing a broad philosophy of operation. This is the need I see, and I don't think that this ought to be part and parcel of the cabinet. I don't think it ought to be manned by departmental secretaries. I mean, again, these are political creatures. These are people who are going to have short term desires in relation to their own programs, and there's a fair amount of infighting, you know. It's all right; I did enough of it myself. I think that as a program operator in a relatively narrow service, unless you really fight for your programs, they're going down the drain. This is a very stiff competition for the federal dollar and requires this type of approach.

But I think that none of the federal agencies, I believe, if given a chance to appear before this group, to provide this group with information, if properly set up and properly staffed and properly manned, would in any way object to these decisions. Then you have OST [Office of Science and Technology], PSAC [President's Science Advisory Committee], Bureau of the Budget and the like. These then become part of the

implementing mechanism and the integrative force. I think that the main problem is that you have to remove yourself from the field of operations as such to get this more abstract approach to policies and problems. So there's a fair amount of support for this conceptually, and it may be that legislation will be introduced.

[Donald] Horning, who was Johnson's science adviser, has proposed that OST and the President's Science Advisory Committee be recast. To my mind they've operated so poorly that it's much easier to start from fresh, without all the personalities, without all the commitments. I think I see a role for PSAC as an adviser to the man who advises the president, which gives him the breadth of vision so that he can do it. I see OST as becoming really a staff arm of the Bureau of the Budget, rather than an independent agency with unfortunately either no responsibility or no authority. Now this is a hell of a thing. You can't afford this type of freewheeling segment that high in the federal establishment, so that I would say a fresh start [is needed]. And basically that is what is proposed. I won't talk any more. This takes in some of the things I've said before and tries to sketch in the evolution of some of the forces that lead to . . . (hands interviewer a paper).

G: We can use this as a complement to the transcript. I have two questions.

S: I have a feeling you're not getting what you want.

G: Oh, no. This is fine. In a vague sort of way, you as director of NIH came in at the Sputnik era and left in the Vietnam War situation, both of which have had an impact in dollar terms on various social domestic programs. Is this the kind of bracket that you see?

S: No. I think it's important to look at budget cycles, because the basic decisions that led to the modern NIH came almost a year and a half before Sputnik I. The basic decisions were made by the executive branch in the summer of 1955, by the Congress in the spring of 1966 [1956?].

G: Although Sputnik had been predicted about that time as well.

S: Oh, no. Sputnik really came as a [surprise]. It caught the Eisenhower Administration really off base. The response . . . When was that, 1957 or 1958?

G: 1957.

S: 1957. It was the fall of 1957, so that we were well on our way before Sputnik happened. This I like to point out, because you just look at the curve and you say, "Oh, it's a whole Sputnik phenomenon."

G: But that did have an impact.

S: It did have an impact. It loosened up and permitted the further growth of the program beyond 1957, 1958, up through 1963 to 1964, so there's no doubt it had an impact. I think that there are other brackets. I would say, and I will say that Vietnam had very little to do with health programs if you look at them in a slightly different way. When we went in through Flemming for health research facilities--that would have been in 1967, I think--we proposed a program of the health research facilities and for health education facilities. Interestingly enough, it had no support from the universities, because they felt health was being taken care of all right. They wanted free money, they didn't want earmarked money. It was knocked out, and we ended up with health research facilities and nothing more.

It wasn't until 1962, with support from the medical schools, that it was possible to reapproach health education assistance, and then only in terms of building programs. This has taken so long to get adequate funds in, that educational programs in medicine are at a crisis at the same time as other things are happening that place medical services at a premium. The shortage being due to, for the first time, our trying to satisfactorily handle the health needs of economically deprived people by Medicare and Medicaid. So we would have been in this position of having to fight for a continuation of supportive research, and indeed its expansion, regardless of what happened in Vietnam, primarily because of the too late appreciation of very broad educational needs and the too late appreciation of the desperate need to restructure the medical service systems.

So the immediate thing we see it in the state budgets, you see, where state after state has cut their health education programs, primarily because of the high cost of Medicaid. I think the health dollar is a fairly protected universe of its own, and the competition for dollars here between research, education and service [is fierce]. It's true that the high defense expenditure precludes the federal establishment, under its present system of allocations, to do what its leadership has repeatedly said over the years it would like to do. That eighty million spent for defense affects all programs. But what I'm saying is there are other forces, internal to health itself, that would have brought on some of the elements of the present crisis, and these are just made worse by the very high defense expenditures.

G: I'd like to turn to Johnson specifically, or the Johnson years, and there are a number of things that you might like to comment on. One of them, to begin, is the President's

Committee on Heart Disease, Cancer and Stroke in 1964, which led to the regional medical programs of 1965 in NIH.

S: Those programs were long in the making, and that report that finally came out has a very interesting history in itself. In the first place, the pressure to do something in those areas came from the private sector, voluntary agencies, American Heart Association, American Cancer Society and the like, and probably found a focus in the advice that Mary Lasker gave the President more than any other. If you want to ascribe to any one individual [the credit], it would be she that brought that into being.

Tape 2 of 2

S: Well, to understand that commission on heart, cancer and stroke, you have to realize that in 1962 or 1963--this was when Ribicoff was secretary of HEW--Kennedy set up a commission on heart, cancer and stroke. I forget what it was named, but something like that. The dominant people there were Mary Lasker of the nonprofessionals, Dr. [Michael] DeBakey, what's his name, the chief of laboratories in the Children's Hospital in Boston--the name escapes me at the moment [Dr. Sidney Farber]--and Irving Wright in New York, professor of clinical medicine at Cornell. They prepared a report for Kennedy that was really an atrocious document. You know, when a presidential commission prepares a report there's always a big whoop-ti-do about its reception. This was prepared by an outside group of the general character of the subsequent DeBakey group, and we went down as invited guests to present it and discuss the major impact, to see John Kennedy.

We arrived at the appointed time, which was eleven, were greeted by Ribicoff and

no Kennedy. We waited around for about an hour, and he still didn't appear. So Ribicoff decided to go ahead, and this was the most fantastic thing. He made a political speech to these professionals, saying basically he understood what the report said, and what it meant really was large expenditures of a wide variety and for a number of purposes. Budgets were political decisions, and if these people wanted these budgets, then they ought to go out and politic for Kennedy. It was a most unfortunate thing, I mean totally uncalled for. I don't understand Ribicoff doing it, because he's a fairly sophisticated individual. I think he must have gotten on a line and couldn't see where the hell he was going, and he just kept going. But the group never did see Kennedy, and it turned out the next day or two we knew why. That was the morning the Bay of Pigs broke, and you could imagine that Kennedy had more important things to do.

Well, the report itself was so bad that we advised OST--and Jerry Wiesner was the President's science adviser at the time--just not to accept the report. It was ridiculous. It was poorly done. All it said was it wanted more of everything, really. So then subsequently, with Kennedy's assassination and Johnson's ascendancy to the presidency, in the first round of presidential messages again the forces that led to the development of the first group regrouped around Johnson. He made a commitment to the Congress that he was going to establish this commission to look at these diseases.

You see, they're rather frightening if you quote deaths or disability statistics. About a million people die a year. That's not important. You have to die from something, you know. The important thing is too many of them die young, and this is not frequently stated clearly. You're more concerned with premature disability and death

than you are the fact that a million people die. You are concerned with the fact that about thirty million people at any given point in time have cardiovascular disability that imposes some limitation on their capabilities to a very large degree. Then when you add strokes and the like and cancer you have the major disablers, the major killers, and all of these operate in too large a proportion at a very early age. So in developing this second commission--I can't even recall who headed the first commission, it's unimportant--DeBakey was made chairman, I'm sure in part because he is from Texas. But he was a public figure, and it was a good thing.

They realized that the prior document didn't make sense. It was developed by a very small group and without consultation with the operating agencies in terms of what was feasible and things of that sort. And then that went to work. They divided it among three areas: heart, cancer and stroke; and really developed a lot of good background information. Their approach was as much toward service of these people as it was toward research and education. I might say that I remember talking to each of these three groups, outlining the deficiencies of current programs, where they could go, both in research, education, information processing, libraries and the like, and service.

They came out with a very reasonable report that actually had about, as I recall, some forty-two recommendations. It really covered all of the deficiencies within a very broad frame of reference in all of the areas that related to medicine, and it wasn't too different, really, than some of the things that we presented to Folsom in the mid-fifties. It was more than a laundry list. It was really a call for an action program, and it really laid it out reasonably well. The trouble is the aggregate figures, when you added them up

without some type of phasing that would look at a program over a ten year period, carried with it the connotation of a laundry list, and with no priorities.

Well, the regional medical programs that emerged from that report as a piece of legislation implement the first three of the forty-odd recommendations. I remember very well that as this went through the Bureau of the Budget and the President's office, it had a very strong support. Basically what it sought to do was not to present a straightforward subsidy to all of these important areas, but rather to provide funds that would permit a restructuring of important services to diseases that were characterized by about the highest cost in terms of disability and death. Now it was presented by the department. The legislation was worked up by a man by the name of Walter Dempsey, who was a person on leave of absence from Washington University, in a very highly stylized fashion that would put the federal establishment much too much in the role of the program operator in too many elements of the program. This was not meant in the original DeBakey document, and it wouldn't work in our society, but nonetheless this is how it was presented. So it was extensively rewritten in the House.

The AMA [American Medical Association] made a direct appeal to Johnson. Johnson found merit in what they said and instructed the department to work with the House Interstate [and] Foreign Commerce Committee and encompass some of the more important program modifications recommended by the AMA. And indeed they did, and it came out as a very effective piece of legislation. It was eventually assigned to NIH primarily. Well, first it was assigned to NIH by the Congress and by congressional pressure and from pressure within the White House from the forces within the DeBakey

commission. These had our full support. We didn't want to get into a program with service connotation, but we knew that what had to happen here was the creation of resources that, unless handled very carefully, might indeed destroy some of the NIH programs.

Opposed to that, this program that would have its primary professional base within the university structure had a firm base within NIH if it wished to take off in the development of a community oriented program. We felt this could be done with a great strengthening of the program rather than create a jurisdictional fight. Our recommendation, when it was assigned to NIH by the Secretary over protest of the Surgeon General, was that it should not stay at NIH forever. But we felt that a five-year period probably would be required to bring it to the point of operation, and if it were assigned to NIH during that period of time we would develop the organization with such completeness, that when it was moved laterally it could be moved as a totally operational program without sacrifice of any of its component parts. We specifically built in planning programs, personnel programs, things like that that we normally wouldn't build into a division operation of NIH, so that, as I say, it would last.

Now, what's happened is with the creation of this new administrative frame of reference for the Public Health Service; regional medical programs was moved out of NIH too early, I think. Right now some of the conflicts that we anticipated are already arising, and it's a very specific example of the devastating effect of this federal rivalry. I don't often interfere, but after a long talk with the director of the Heart Institute I am going to fuss with them. Because what is happening within the regional medical program

[is] they are setting up a competitive organization, competitive on many levels, with the aims and program objectives of the Heart Institute.

Now this is ridiculous. This is the very thing we knew would happen if it were set up as an independent agency. We said five years, because by three years the bulk of the planning would be [finished] and by five years we would be two years into its operation. Its character would have been set by that time. But being moved when it was, which was scarcely three years after it had been established, with some shortage of funds so this delayed some of the things, it was moved before the program really got into operation. Now the result is--this was moved out of NIH about a year ago--during this past year, which is the year they just moved into operations, they have not been able to do what should have been done this year, and that is view the program, find out what the deficiencies were, and then mount some demonstration programs that would show how these deficiencies should be overcome. But, having funds, they're undertaking primary research that normally should be carried by the Heart Institute, because this is the easiest thing to do. You see, with the shortage of research funds a scientist doesn't care where the hell he gets his money from; he just wants support. So they have an array of applications for research because of the availability of funds in RMP [regional medical programs] and the lack of availability of funds in the Heart Institute.

So, I think this program is in trouble now, but it's not in trouble because of the Office of the President. It's really not in trouble because of Gardner, who is secretary. It probably is in trouble because of Wilbur Cohen, who became secretary after Gardner left. A fantastic individual, Gardner had made some general decisions on reorganization of the

health function, and Wilbur decided to implement them as soon as possible, but to do it with as big chunks as possible. Our advice was, "Leave RMP where it is for another year or two, and then move it over into the health service areas at a later time." His political decision was that this would add glamour to the research area, and he would move it.

The second reason that made him move it was, the director of regional medical programs at the time was [Robert Q.] Marston, and Marston went over as chief of the health services area. So it seemed the logical thing to move at that time. Philosophically, I still was opposed to it happening at that time. I didn't protest too much because Marston, having been brought up within the NIH structure. I felt could do it. But then shortly after that he moved over as director of NIH, and now it's freewheeling. But this is some of the bureaucratic nonsense that goes on in the federal establishment. This is why, as I said before, the individual departments, program operators, really have to fight for their own programs in a very vigilant fashion. They tend, therefore, not to be very objective.

G: You at least once--I'm not sure, maybe even twice, 1966, 1967--have had contact with Johnson. Perhaps you'd like to explain that. There was a visit to NIH and so forth.

S: Johnson had a peculiar set of advisers in the health area. Some of them I know, others I don't know. [Dr. J. Willis] Hurst, the man who took care of him in the navy when he had his first coronary, and Mary Lasker from New York, who reflected forces within society, and I can't recall the name of the man from Mayo who is on his inner councils relating to manpower utilization and the like, these are the people he really listened to rather than his own science adviser or [Ivan] Bennett, who was a deputy. They didn't see him much.

Johnson used Hornig very effectively on technical missions overseas but very little on, as I can gather, program advice within the federal agencies. Bennett wasn't used at all.

I saw some of the written material that was given to the President, and basically it said something like this: "These jokers out at NIH are just doing science for the sake of science, and meanwhile the great medical problems are being left unsolved. They ought to be jolted and forced to be more realistic in their distribution of allocation of resources to the developmental and applied area, and let this science for science's sake go by the by." Now, I saw some the staffing documents later, and this is the basic thrust of it. This is all he had to go on. This would have been 1966, I guess.

In June, in a rather preemptory fashion, we were invited down to discuss our programs with the President. No written documents were prepared; he just wanted to talk to us. He had a script prepared for him--I think I know who prepared it, but I won't say because I'm not certain--and his attitude really was very alarming. Because basically his message was, "You know, I'm interested in science and in support of science, but I'm more interested in results than with science." Well, that's a very reasonable approach by a lay person, impatient, realizing the social cost of the disease and wanting to know where the hell the results are. But having the type of preparation for the conference that he did, he approached it from a very biased point of view.

Now the interesting thing is that this meeting was supposed to be for thirty or forty-five minutes, and he held us there for about an hour and three-quarters. The longer we stayed the more interested he became in the broad program philosophy that underlay the program development. What it amounted to [was] I had told the Institute directors to

be prepared to make capsule versions of the major thrust of important programs, and I had put them on notice that I was going to feel very free to step in and comment on the thing, which indeed I did. Johnson seemed to be sufficiently impressed. We talked to Doug Cater and some of the others afterwards, and we know this to be the case. We came out of that meeting with a resolution of this conflict that the people who had been advising the President never expected, and that is [that] he asked for a general report on the total activity of NIH, which permitted us to lay a very rational base for the activity.

G: That was the subsequent, "The Advancement of Knowledge for the Nation's Health?"

S: Yes. So what started out as pretty hostile confrontation looking toward very broad deficiencies came out with what to us was a very satisfactory resolution. Because, again, the attitude with Folsom is that to inform is usually to persuade. A great deal of work went into the document, and it was sent down to him late that fall. The meeting was June or July, I forget which, and I went down. It was due November 1. We didn't have it finished, but it went down sometime in November. As you can imagine, he had other things to do. Regardless of that, eventually he got around to it, and I think it had to be in January or February or March of 1967 when he came out to NIH. The first meeting was in the Cabinet Room, the second was at NIH.

By that time the report itself had been read by OST, the President's science adviser, people in PSAC. He had a much broader input, and he gave a talk to his staff out there. The staff was very scary about what the hell was going to happen, and he had made a complete about face and pointed out that as far as he was concerned this was a billion dollar success. He thought that it searched for knowledge as he understood it, and

as these programs had been developed and were going on [they] were the greatest programs he'd ever seen.

This was after he came out and he sat down. We took about three Institutes and showed the relationship between the science base, the applied research, the developmental opportunities in what was going on in little five-minute presentations so that he would have a fresh view on what he'd been told. So what was an attempted assault by people who were too short term in their attitudes turned out to be a very fortunate series of relationships.

G: How did he--

S: Of course, along these lines it's very important to say also we had Gardner's total support. My relations with Gardner were extremely amiable, and he knew some of our staff. There was enough interaction so that when he talked about NIH, he talked about it in a very knowledgeable fashion. So I'm sure that in the time this report was being developed that Gardner had had a great deal of opportunity to discuss the program with him.

G: I have two questions. In the first meeting in the Cabinet Room were there any of his science advisers in attendance?

S: No, that was the funny thing. But this shows again, you see, he did not connect the NIH programs with his Science Advisory Committee. Neither Hornig nor Bennett were invited to that presentation, and it just was not good rapport between him and that advisory structure. He used it, as I say, very effectively on technological missions, but he did not use it as direct input to his own thinking on science programs, at least as I saw it operate. On the other hand, they had a great deal of influence with the Bureau of the

Budget.

G: Then you attribute his change and his reversal, his about face, to Gardner's influence?

S: I think the report. Gardner's influence, the impact of a number of people on very many of his staff. Really, I think the President's staff had a fairly liberal education in the intervening six or so, seven months.

G: Even those people who had advised him initially?

S: Oh, no. They didn't change their minds. No, they never did. But now we had more than a single point of view before him, and he elected to support the operation rather than drastically modify it.

G: Do you think that he had finally come to a genuine understanding, a real perception of the kinds of things that you were doing?

S: I think he understood enough of the specific examples to give him some confidence in the net rationale of the operation. I don't minimize at all the importance of his confidence in Gardner and Gardner's support of the operation. But I think he, himself, was able to see the importance of this science base for applied research, the high risk nature of developmental research and the absence of a science base, and see enough examples of wholly applied science where the base was there to . . . No, I think he saw enough, I believe, to have some inner conviction of his own. Then, of course, his environment supported that conviction as a result of their input there. This could have been catastrophic though.

G: This speech that he gave, if I recall--in fact I took some notes from it--is the same speech I would call the screwworm speech, where he points [out], "If we can spend millions on

cows and the problem of screwworms, why can't we spend millions in this other sector as well?" So he's still looking for results, hard and fast results.

S: Oh, yes. But he's nonetheless willing to realize that the mechanics of science are such that you just don't push a button and get results, however important it may be, in the absence of having laid the science base for the development. My own conviction about the thing--I make a point in that Dallas talk--is that the broad support of the federal establishment of science must be in terms of an understanding of the social purposes of the science. There's no quarrel here. On the other hand, there's a quarrel in terms of the mechanics of how you get from here to there.

G: He also said in that speech that the driving force in medical research today is government, and that government is the only agency that can provide that means. I think he cited that two-thirds of the total amount that's being spent comes from government.

S: If you take that book I can show you the pie diagrams.

G: Yes, here it is.

S: Page seven. Oh, no, page four and five there.

G: Sixty-four per cent.

S: Yes.

G: Is this indicative, or is this a reflection of the view that people at NIH took or take?

S: What do you mean?

G: That government is the driving force.

S: Oh, this is the facts of life.

G: I mean, going beyond the facts, this is the way it should be in your judgment?

S: Oh, I would much prefer that there be much more private money in that area, other than--industry puts [in] about 25 per cent of the total. But the devastating weakness of the thing is that there's industry; there's the federal government; then all others provide 10 per cent.

G: What are all others?

S: Endowment, voluntary agencies, private contributions, things of that sort. No, I don't think this is the ideal arrangement at all, but with the tax structure being such as it is, this is the way that it's going to be. I think it's up to us to accept that as a fact today, as a basic certainty tomorrow, and adjust our programs to reflect a very real situation. This isn't very different than U.K. or France. It's quite different, I might say though, from Japan. The main difference in Japan is not in the biomedical sciences, but it's in the physical sciences and engineering where there's much more private input. But in the biomedical sciences, again, it is dominated by the central government. So I'm saying the United States is not unique in this, in the biomedical sciences.

G: I just want to ask you about the 1966 and 1968 reorganizations of the Public Health Service and so forth. Just, if you would, give your comments on them as they related to you, or what you could see from NIH if they had any impact within the whole HEW structure.

S: The first reorganization in 1966 came about six to nine months after William Stewart became surgeon general, and to my mind, it really accomplished very little. It did have a profound influence on some NIH programs, because as part of that reorganization Stewart reacted to the social drive to separate mental health activities and develop

independent bureau status for them. But we told Dr. Stewart and [Stanley F.] Yolles. who was director of the new Bureau of Mental Health--that we probably overstepped our authority in saying this--that we would not tolerate mental health direct operations in the Bethesda area unless we had professional charge of them, that as far as budget and problems of program emphasis, this would be subject to discussion between Dr. Mita [?]. who was the associate director in charge of the direct operation, the scientific director of the Institute of Mental Health, and Dr. Yolles, the director of the Institute of Mental Health. But [we said that] once the plan of operation was set, we would insist that the normal discipline that applied to any institute program would obtain for mental health. If they didn't like it, they could just remove their programs from the area. As I say, we never could have made this stick.

I was talking to Gardner one day when he was leaving, and he didn't see how I could stay in government for so many years. He said how did I do it. And I said, "Well, probably because one of my most important characteristics is the ability to be completely unpleasant when necessary." I think this was one of the times when I was completely unpleasant.

So the Stewart reorganization had many things that would have torn the operation apart. He set up a series of special programs in such a fashion that, whereas heretofore division research grants serviced the entire Public Health Service, each of the operating divisions would have set up their own review and analysis methods, and this is a very costly operation.

Then, also, in attempting to gain control--and I say that in precisely the way it's

meant--over NIH, who he viewed was trying to go its own way, he not only moved out to the NIH campus but then attempted to set up a series of programs within his office that tended to replicate some of the things that we had in being. So that the better part of the period between that reorganization and the one instituted by Cohen last April was taken up with feuding between NIH and the Office of the Surgeon General. We were more loaded by reason, by very good staff work, and by a well-knit administrative setup, so we won the bulk of the arguments, but it was a God-awful loss of time.

Now in the more recent one this doesn't make much sense either. I like to be very explicit. The new NIH now encompasses the Bureau of Health Manpower, but the Bureau of Health Manpower itself has many things that could be done better elsewhere. The Bureau of Health Manpower is concerned not only with the education of physicians, dentists and osteopaths, but also about eighteen to twenty other professions and occupations--nurses, optometrists, podiatrists, therapists and the like. It was our conception that the role of these people will change very rapidly in the coming four or five years in order to respond to the shortage of professional care, and in professions, the content of which are going to change, that they should be associated with the forces that are going to change their responsibility; namely, they should be in the health care area and should have been attached to the Health Services Research Center, which was in the Health Services and Mental Health Administration. This was not deemed to be, as I used the expression before, politically expedient, so they're all together at the present time.

The second thing is that contained in those manpower programs are certain things that shouldn't even be chargeable against the health dollar, in that as junior colleges and

community colleges develop a good deal of the development of paramedical personnel, [these] can be the responsibility of these new educational institutions. Their programs respond to local need, and it should be possible to develop stem courses in the biomedical sciences that can serve as an adequate base for multiple professions, so that there's little need to set up independent schools for every subprofessional group. But again, I don't think that this is well done in NIH, that deals with national issues, when these are largely local issues. So quite apart from plowing some of these health professions into the general educational base of the nation, having them properly run by a broadened office of education . . . You see, the physical sciences don't try to train electronic technicians. This is the general philosophy.

There are other programs in the health manpower areas that are straightforward, important social programs with overtones of welfare. These are called nursing opportunity fellowships and programs. My feeling is that these things should be supported for and in themselves, not simply tacked onto the health dollar. They serve an important function in providing upward mobility within the health professions for some people who start with inadequate training, but this is a general problem of our society and shouldn't be isolated to health. So that to my mind, health manpower as it's developed at the present time just doesn't make any sense.

The other thing that is really outrageous in the present organization is they have an administration called the Consumer Protection and Environmental Health Administration. This is run by a sanitary engineer, but contained within this administration is the Food and Drug Administration as a subunit. I think that the Food

and Drug Administration has too much of a contribution to make for it to be handled as a subunit of a very broad administration, the primary thrust of which is the physical environment. So I say it just doesn't make sense. And finally, in the Health Services and Mental Health Administration, you already have the forces at work that are going to separate mental health as a separate organization and are going to cause trouble. This tends to dodge the issue of whether the time hasn't come, and I believe it's long since passed, for us to run yet another series of hospitals for Indians, for merchant seamen and the like. I think the direct patient care services that are given in that administration, again, reflect an anachronism that should be dealt away with.

So that when you see what's wrong with the present organization, it's less what's wrong with specific elements [than that], to come back again, too frequently, a department will take a series of actions without a soundly conceived philosophical base. I would say that there was no thought given to these relationships. This is not an off-the-cuff opinion. We gave very thoughtful consideration to this and made some broad recommendations to Gardner two years ago last November. By and large he was inclined to buy most of them, and I think had he stayed one would see quite a different series of organizational relationships. But I can't help but come back, I mean this, "Do it now," or, "Do it quicker," or, "Do something," without some basis, some broad philosophy of what you're trying to accomplish and the hazards it has is too frequently characteristic of elements in the federal establishment that tend to give the whole damn establishment a bad name.

G: Well, my last question, really, I guess has two parts. The first part of it: did NIH have

anything to do with the development and the evolution of child development programs such as is embraced by Head Start, for example? I know that one of the national institutes that was brought under NIH, or brought to NIH, was the National Institute of Child Health and Human Development. I'm wondering if there is a relationship?

S: There could have been, but actually there isn't. If you go back over the establishment of the National Institute of Child Health and Human Development, this itself has an interesting history. As you know, one of the Kennedy sisters had mental retardation, and very shortly after Kennedy became president it was made clearly apparent through the Secretary that the President wanted a national institute of mental retardation. We objected to it, and a number of staff doctors pointed out where it didn't make sense, that our programs were grossly deficient in areas of child development, and what we were interested in doing and had just made a beginning in, was developing biological and behavioral aspects of human development, both as it pertains to the child and to the other extreme, the aging. Here are the times in life when rapid changes take place. We said that if you take a broad look at human development in these terms, then what you find is you have to be concerned, looking at the behavioral side of the child, with the development of cognitive faculties, with problems of learning, with problems of language development, with the entire early developmental aspects insofar as it could be seen by the educational people.

We pointed out, furthermore, that in our country nobody paid any attention to that. Fortunately, it's possible to point to a very good model in the kibbutz in Israel. You've had child development centers where--these had been operational for a long

time--they had problems not too different from us in this country. Because the children of European parents did rather well, the children of Asian parentage, who did not have the cultural heritage that the European Jews had were in deep trouble. We thought there was very persuasive evidence that it was possible [to achieve results]. The Institute of Mental Health, in looking at intellectual development as part of their basic program, has been able to show beyond any doubt that it is possible by modifying the environment to [do so], at least using intelligence quotients as checkpoints.

So we weren't, on the other hand, in a position to mount a program with the vigor that the Office of Economic Opportunity [could]. I would have liked it had they consulted with us. Because I think that the design of those centers, not all of them but some, could have been such as to provide a base of information so we wouldn't be where we are at the present time, to get us an example of trying to satisfy a critical need with some type of crash program without really trying to lay a base for the operation. I think we would have loused up the program if we were asked to do it. I mean, this is the Office of Economic Opportunity handling many of the poverty problems within the inner city, and we didn't have the staff, the competence or whatnot. But I think that we could have been of tremendous help if they'd turned to us for program design.

G: With your acquaintance and friendship with Shriver, did you ever make this view known to him?

S: The die was cast, and Shriver is an operator from the day go. When Shriver has a program to run--

G: You're not going to get it from him.

S: No, no. He's really a superb operator and did a very good job in the development of the program in the Kennedy Foundation, which is where I first came in contact with him. I suppose I saw Sarge, during the early days of Peace Corps, outside the country as much as I saw him in the country. He was on the plane half the time. On the other hand, we were able to give him some very good leads on very good people for some of his programs. This was the only input we had.

G: I see. Well, the second part of that question--I'm not sure that I can establish the relationship, but earlier you were talking about what you called a feud between the Surgeon General's office and NIH for reasons that you enumerated. The Surgeon General, as I recall--I can't remember off-hand the date, the precise date, but there was a point in time where he came out very strongly in favor of your latest research findings on the relationship between smoking and cancer. This became a public issue to the point where there was debate, there was dialogue, there were things that were being done.

S: That was during [Luther L.] Terry's residence as surgeon general, and that would have been during his last year. He terminated sometime the fall of 1965, I guess.

G: My question is, when there are public issues of the magnitude of that, do they have an impact on scientific research in these areas such as are conducted at NIH?

S: Oh, yes. In the first place, that report came out and immediately projected this area of controversy. It's a very solid report, and that was gone over word by word, sentence by sentence in all its implications by the Cancer Institute before it was ever published. In other words, the Cancer Institute was the primary adviser of the Surgeon General on that. The programs of the Cancer Institute and Environmental Health Sciences have been less

explicit in approaching the problem of the relationship between smoking and cancer because, again, they're more generalized, trying to understand the problems of carcinogenesis itself as a general problem. They have pulled out specific carcinogens in the light.

They have very broad programs in association with the AEC's [?] operation down South--the name escapes me at the moment--trying to interrelate chemical and viral and physical factors in this complex series of biological changes that ultimately lead to carcinogenesis. I think that to the extent that their programs can, they've tried to expand the basic knowledge, whether this be in their direct program or their support program, so that all of their activities were totally supportive of the view that that report came out [with], and indeed were supportive of it before that. Because this made public an attitude that was rather well established already from the standpoint of the science base. So there was no conflict there at all, nor has there been.

More recently, in the last year I've come to doubt somewhat the wisdom of an official government agency to propagandize the people. I think this is a normal role for the American Cancer Society and the American Heart Association. I rather doubt that this clearing house for smoking and cancer and heart disease that was set up by Stewart can stand without pretty serious criticism of some of the things they've done. Now the reason I say that is that cigarette lobby is a very intelligent lobby, and two of the people on the Appropriations Committee on the House side obviously have been prepared for hearings both last year and the year before. They took the attitude that they wouldn't argue the facts, but they did question the wisdom of a public agency propagandizing the

people. They point out that if it's going to do it, then it's got to be consistent, and what they were able to do is to show that some of the statements of the clearing house for--

(Interruption)

S: The statements of the Center went well beyond the published position of the Public Health Service, and indeed some of Stewart's speeches went beyond that. So this clearing house has the missionary zeal that is admired by those who are totally against it. Quite frankly, this is an issue. I don't know. I can't resolve in my own mind. Every time I discuss it, I think if I were surgeon general I don't think I'd mount that type of activity. I think I'd leave that to a non-federal agency to do. But there's no conflict on facts, there's no conflict on attitudes, there's no doubt that if the Surgeon General was asked of his opinion, as people have a right, he should state it flatly and to the point and be able to bring the evidence to bear. In this there would be no quarrel between him and the NIH or the National Cancer Institute, but I don't know where public education leaves off and propagandizing begins. This is the problem.

G: Is there anything that you'd like to add to this tape?

S: No. I think you're going to get a lot of hash from this.

G: Well, I think it'll provide some very interesting reading for some future historian. Thank you very much.

[End of Tape 2 of 2 and Interview I]

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