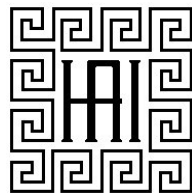


**DIVISION OF CANCER PREVENTION**  
**ORAL HISTORY PROJECT**

**INTERVIEW WITH**

**Dr. Barnett S. Kramer**

**DECEMBER 2, 2008**



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**Dr. Barnett Kramer**

**Biographical Statement**

Dr. Barnett S. Kramer currently serves as the Associate Director of Disease Prevention, National Institutes of Health. A native of Baltimore, Maryland, Dr. Kramer earned his undergraduate degree from Johns Hopkins University in 1966 and his Medical Doctorate from the University of Maryland Medical School in 1973. From 1978 to 1986, he served as an Associate Professor of Medicine and then as the Associate Chief of the Division of Medical Oncology at the University of Florida College of Medicine. In 1988 he joined the National Cancer Institute as the Director of Medical Oncology Training and moved to the Division of Cancer Prevention and Control in 1990 to serve as the Associate Director of the Early Detection and Community Oncology Program. In 1994 Dr. Kramer became the Editor-in-Chief of the *Journal of the National Cancer Institute* and then became the Division of Cancer Prevention's Deputy Director in 1996. Dr. Kramer transitioned to the position of NIH Director of the Office of Medical Applications of Research in 2000 and simultaneously serves as the Director of the Office of Disease Prevention.

This interview covers the increasing attention placed on prevention research and the role of the Division of Cancer Prevention and Dr. Kramer in encouraging this transition. Dr. Kramer also discusses his interaction with the DCP following his appointment as Associate Director for Disease Prevention of the NIH.

April 2009

**National Cancer Institute  
Division of Cancer Prevention Oral History Project  
Interview with Barnett Kramer  
Conducted on December 2, 2008, by Philip Cantelon**

**PC:** Thank you very much for participating in this.

**BK:** No problem; my pleasure.

**PC:** Okay if I tape the call?

**BK:** Sure.

**PC:** Okay; thank you. It is actually digital but the same difference.

**BK:** All right.

**PC:** What I'd like is to start out with a bit of background; why you moved from Florida up to Bethesda in Public Health?

**BK:** Well it was a combination of professional aspirations and family reasons. First the family reasons that made it attractive were that I had a young son in Florida and my wife and I are both from Baltimore. Our parents were alive at the time and there was a professional opportunity to move back to the area. I wanted my grandparents to know my son and I wanted my son to know my grandparents, so that was the family reason.

The professional reason was that while at the University of Florida I had developed an interest in Public Health. I thought that clinical medicine although extremely important and gratifying, it was not the complete picture. I had the desire but was limited in my education about the larger medical issues, including Public Health and Statistics. So I was thinking around that time that I would take a sabbatical and get a Masters in Public Health, but unexpectedly a position came up at the National Cancer Institute in the Branch which I had trained years before. I thought that would be an opportunity to be in the area and be at the National Cancer Institute. It also opened up so many more educational opportunities, like getting a Masters Degree. I came here and started in the Division of Cancer Treatment. In a couple years after arriving, I asked for permission to get a Masters Degree in Public Health. My Branch Chief endorsed it and I embarked on the educational path that I had desired for quite some time, toward a broader understanding of the health profession and Public Health in particular.

**PC:** And—and your training had always been in Cancer and Oncology?

**BK:** That's right. I did an Internal Medicine residency and then trained at the National Cancer Institute in a Medical Oncology Training Program and so most of the first part of my career was spent in Therapeutic Research. But for the reasons I've already mentioned I really wanted a deeper understanding of Public Health and Population Science and Population Based Interventions that are used in prevention. I made the switch after getting formal training in Public Health.

**PC:** What was the eureka moment that turned you to Public Health?

**BK:** Well I can't say it was a eureka moment although if there was one it came as an acute awareness that I had a limited understanding of Statistics and Clinical Trial Design. While I was at the University of Florida I went for a course; it was a week or two weeks at Harvard in Bio-Statistics and in Clinical Trial Design. And it was there that I really was hit squarely with the limitations in my understanding of Statistics and Population Sciences. I loved the course but when I came back to Florida I decided that I was just too limited in my understanding of Public Health and Statistics. That's when—if there was a eureka moment, that was the point at which I decided I needed much more training than I had. And that sense of need was confirmed when I entered the School of Public Health at mid-career. I often like to say I didn't learn a single thing in the School of Public Health that I shouldn't have been taught in Medical School and yet it was all new to me. And so I came to the conclusion that my education had been constricted by simply going to Medical School and that the Public Health training was very important. And then the Public Health training itself gave me a wider window or looking glass through which I knew Public Health and Prevention was the field for me.

**PC:** And now I noticed you gave a talk last spring on was it *Lies, Damn Lies, and Medical Statistics*? [*Laughs*]

**BK:** Yes so I began to develop and I did a lot of outside reading. Retooling your education requires lots of self-preparation and self-examination of what you need to know. Both

informally and in the School of Public Health, I developed a deeper understanding of Statistics and Public Health and Epidemiology, which really positioned me for a new path.

**PC:** And what—what took you into the Division of Cancer Prevention?

**BK:** Well midway through the Masters Program in Public Health, which took me about a year and a half to complete since I was doing it part-time, I decided if I could ever get a position—it was all well and good to apply these skills in Therapeutic Oncology but it would be more fulfilling if I were in a program devoted to Prevention. At that point one of my colleagues, who was negotiating a position in the Division of Cancer Prevention and Control with Peter Greenwald, said that there was an open position for—for an Associate Director in one of the programs in the Division. I looked at the content area and it was extremely interesting to me on so many levels. It was the Early Detection and Community Oncology Program and that Program was involved in community hospitals that were doing both therapeutic research and cancer control and cancer prevention research. And so that I thought was a good fit with the skills that I had already and the skills I was developing in my Public Health Program. I had also acquired a strong interest in early detection and screening tests for cancer and wrote some papers in school on that. Cancer screening was part of the research spectrum in the Program to which I applied. And it was a wonderful opportunity to work with Peter Greenwald. He is one of the pioneers in the field of Cancer Prevention. And so I applied hoping that my

background in Therapeutics and my new educational skills in Public Health would make me attractive. I fortunately got the position and the rest is history so to speak.

**PC:** In—this was in 1990 I guess?

**BK:** Yes; in the fall of 1990 I switched from the Division of Cancer Treatment to the Division of Cancer Prevention and Control.

**PC:** Now Cancer Treatment at NIH I understand; you know it's disease oriented and treatment is—seems to be where the big dollars are.

**BK:** Yes.

**PC:** Prevention isn't?

**BK:** Well, prevention is perhaps an unsung player or hero as a field. There's a lot of Prevention research that goes on at NIH. I'm no longer in the Cancer Institute; I'm in the NIH Office of the Director and the Office of Disease Prevention, but I can tell you that relatively constantly over the years that about 25 percent of the NIH budget is devoted to Prevention and Prevention related research.

Within the Cancer Institute, largely because of Peter's efforts over the last two and a half decades—almost three decades I think, there's been increasing attention to Prevention

and I think he brought stronger science As a result there have been some notable large important Cancer Prevention Studies and Cancer Screening Studies going on under him. I think people tend to underestimate the efforts of the NIH in Prevention.

**PC:** Even people within NIH?

**BK:** Oh yes; even you know it's—

**PC:** Or perhaps more so at NIH?

**BK:** —a well kept secret but there are a lot of Prevention people spread—you know Public Health people spread throughout the—the NCI—NIH. Despite the fact that people think of the NIH as purely biomedical and disease oriented and organ system oriented, we almost certainly spend more on Prevention Research than any other Research agency in the country, which means than any other Research agency in the world.

**PC:** Uh-hm; but then you spend probably more than anyone else anyway.

**BK:** That's right; yes, so even [*Laughs*] a relatively small portion of one of the biggest budgets is a lot compared to other individual agencies. It is true that Prevention is only one of many areas of Research and thrusts of the NIH, but I think it's fair to say it's been an important one. There are some Institutes that stand out for their Prevention research you know. For example, I would say the National Heart, Lung, and Blood Institute has



for years and years been very strong in Prevention. The National Institute of Allergy and Infectious Diseases, the Drug Abuse Institute, Alcohol Institute; there are a number that have pretty substantial long-term efforts. Deafness and Communicative Disorders have the Wise Prevention Program. There are many, many Prevention programs around the Institutes, and I actually think it comes together to form a rather impressive portfolio. I think the NIH has been a major player in doing important prevention. The Women's Health Initiative of course is one of the most famous, so I think we do well as an Agency.

And in the Cancer Institute, again largely due to Peter's efforts, there have been some really big and important trials—the Breast Cancer Prevention Trial, the STAR Trial (Study of Tamoxifen and Raloxifene) to prevent breast cancer as well, the Prostate Cancer Prevention Trial, and two of the world largest Cancer Screening Trials—the PLCO—the Prostate Lung Colon and Ovarian Cancer and also the National Lung Screen Trial of spiral CTs. So that probably would come as a surprise to many people even in the biomedical community that the NIH and the NCI are so heavily invested in Prevention Research.

**PC:** Now the NCI has not always been heavily invested?

**BK:** No; this would be before my time. My understanding from the discussions with Peter that—Vince De Vita who was an NCI director years ago, decided that prevention was a really key part of Cancer Research and he is the one who recruited Peter Greenwald as Head of the Division. So that probably turned an important corner in the history of

Cancer Prevention Research at the National Cancer Institute as well as at the national level.

**PC:** And—and how long—my other studies of NIH, I tend to—I've learned that things change slowly there.

**BK:** [*Laughs*]

**PC:** I should say attitudes change slowly.

**BK:** Well perhaps; I think it's no different than human nature everywhere.

**PC:** Oh I assure you; historians are even slower.

**BK:** Right. [*Laughs*] So yes; it is hard to make sudden changes but over a period—since I've now had the luxury of seeing things unfold over 20 years, I can see change. Certainly Peter has even a longer view, and I think in large measure due to him there's been better, increasingly high-quality Cancer Prevention Research and Cancer Screening Research and mechanisms to conduct the Research through programs that he set up, such as the Community Clinical Oncology Program.

**PC:** And—and has money always been easy to come by to do these Programs?

**BK:** No; you're always under scrutiny when you are proposing large studies, and many Prevention Trials tend to be quite large because you need a very large study population given that you're often studying relatively healthy participants. Cancer is still an uncommon event in healthy people compared to many chronic diseases like heart disease. So it takes very large study populations. Whenever you propose a new initiative or a new large trial, you're put under the microscope.

**PC:** By whom?

**BK:** Well, by leadership and by the constituencies and their representatives on the National Cancer Advisory Board. Often those Boards are dominated by people who have been trained in Cancer Therapeutics primarily or in Molecular Biology or Bench Sciences. The price tag for prevention often looks enormous to them. And as soon as they see it they start making quick calculations of how many individual Investigator Grants could have been funded instead of a large Prevention Trial. So you're always up against that—both a philosophical issue, the inertia of the Research Program in general, since NIH is, you know more basically oriented in some regards, and the issue of the price tag. I think that reality has served to create strong teams within the Prevention community because they know that they have to make a very strong case in order to get large trials and Prevention Trials approved.

**PC:** Who—who are the—if it's the Advisory Boards and the leadership at NIH and maybe NCI as well that will question this or put it under scrutiny, who are the allies who will push it?

**BK:** Well of course some of it depends on who the Director happens to be at the time and sometimes it's constituencies on the outside. Increasingly the breast cancer community, prostate cancer community and other disease oriented communities feel like Prevention is as important and in some cases they feel it's more important than some of the molecular efforts and some of the treatment efforts. Some feel it's better to prevent cancer than it is to have it in the first place and then treat it, and so for different types of proposals, different constituencies will sometimes rally. And also I do believe that Peter has gathered over the years people who know the field well, who take a very rigorous approach and can make a very good case. And then there are people on the Boards—again it depends on who has been appointed for the Board, but often there are enough people even if they've been trained in Therapeutic Oncology that realize the limitations of therapeutics in cancer and feel like you need a diversified research portfolio. No one knows where the next big victory is going to come from and so often people will see the value in a Prevention Trial when the supporting evidence is strong enough.

**PC:** When—when you interviewed for the job did Peter interview you?

**BK:** Yes

**PC:** And—and how did that interview go? What was he looking for?

**BK:** You know I don't remember the specifics and so I'm not sure I could tell you that. I know that he is one of the people who pioneered the real science of Cancer Prevention. Prior to that I think the science in the field was a little softer. And so I was impressed by his rigor and that he really wanted to have a strong Research Program—not just a feel-good approach to issuing health messages and Public Health Education Campaigns. So it struck me that our interests really aligned. I had just been trained in the science and I learned some of the rigorous methods that could be brought to bear in Prevention. We definitely were in sync in that regard.

**PC:** In—in terms of his allies did DCP also get Congress behind it? Was there lobbying or did the groups lobby Congress for DCP?

**BK:** There are constituencies that really like Prevention; perhaps not as powerful as the disease oriented and treatment oriented groups. But there are some Public Health groups out there. I don't think traditionally they've been as numerous or as empowered as the treatment oriented groups. Traditionally more money has gone into the Therapeutic end of things than to Prevention and so even the size of constituency groups often is correlated with the amount of money that's been invested over the prior decades.

**PC:** What has been the impact of genetic and genetic screening on Cancer Prevention?

**BK:** Well I would say so far it's been more theoretical than realized. Obviously the potential is great. If you could identify at-risk populations to target specific therapies that would be ideal; if you could make strong predictions of what someone is likely to get that would be ideal. To date with a few notable exceptions of very high penetrant gene mutations that affect a very large proportion of the people that have the mutation, I can't say that there have been a lot of genetic information has made a major impact in the area of prevention for the general population. That may change as we learn more and more about the human genome, but I think for now we are left with relatively low penetrants gene for the most part and therefore when we come up with interventions they tend to be broad-based.

**PC:** Is there an ethical issue here about learning more than you can possibly treat?

**BK:** [*Laughs*] Well there are very complex ethical issues when you get into genomics and try to predict at the individual level what could happen and labeling them, burdening them with information that is not necessarily going to benefit them or could even be of harm to them. So there are definitely ethical issues. You know you have to be very careful when you are gathering the information and when you're talking to people about the information you've gathered.

Having said that, it remains an important area of research.

**PC:** Can that be done on a community basis?

**BK:** Well yes; you can do large-scale trials and collect information for subsequent genetic testing research. I don't think it's ready for primetime as practical intervention; I don't think it's ready for Clinical or Public Health application yet on any notable scale. But you can do the research in large populations.

**PC:** And—and what about the Tobacco Settlement a couple of years ago?

**BK:** Yes; well by the way before I forget, what needs to be kept in mind is there are some very sticky ethical issues about assuming that the genetic information is sufficient to use. Sometimes we have to be very cautious about selling these genetic tests and promising the public more than the tests can deliver.

**PC:** And—and DCP has not been very terribly involved in that then?

**BK:** That's right; DCP certainly has not been involved in endorsing some tests that are sold to the public at considerable cost and have not yet been validated. I think that's one of the advantages and strengths that Peter brings through his leadership. He—he really is very meticulous about evaluating such tests.

**PC:** And—and DCP has evaluated them then?

**BK:** They're ongoing; I mean we collect samples and blood in some ongoing studies with that in mind. And there is an Early Detection Research Program that is devoted to study of early detection bio-markers including genetics tests. So the answer is they're involved in Research but to my knowledge nothing is ready yet for primetime.

**PC:** And—and I raise the issue of the Tobacco Settlement and the use for prevention there.

**BK:** Oh yes. I don't know much more than the layperson about this but I read in the newspapers that most States have not spent even half of what was to be allocated for tobacco control efforts and prevention efforts. A large amount of money hasn't gone for direct cancer prevention or even tobacco control efforts.

**PC:** And—and was Peter and the Division interested in trying to guide that in any way—the use of that money?

**BK:** Well Peter is always, irrespective of availability of tobacco money, thinking about promising areas for research and bringing them before the Board. As members of the Executive Branch, we cannot lobby the Legislative Branch. But I think the Division and Prevention scientists have been very active in trying to come up with innovative ideas for research. And we're no different branch from the rest of NIH. There are many research opportunities that go unfunded and so whenever more funding becomes available there are plenty of opportunities to use it for Public Health Research.



**PC:** I noticed when you went over to the Director's Office what—in 2001?

**BK:** Two-thousand.

**PC:** Okay; that—that would that have been possible 10 years before, someone from the Division of Cancer Protection—

**BK:** Cancer Prevention?

**PC:** —coming into be the Associate Director of Disease Prevention?

**BK:** Bill Harlan, who preceded me as the Associate Director of Disease Prevention, certainly had a strong devotion. He, like me, came out of Therapeutics, although he was in Cardiovascular Medicine, and then developed a strong interest in Prevention. And so I would say that he also had a strong Prevention orientation.

**PC:** Well I would think the hold up is you would all be Prevention-oriented but—but as you—you pointed out earlier some of these Institutes have perhaps a long tradition of being in Preventative and more so you know—I got the impression for many years Peter was sort of laboring in the vineyard alone.

**BK:** Yes; I would say that's a fair assessment and a lot of credit is due to him for building the science in the field that he has. I don't know exactly how to answer your question. You

know I was interested in the job and—and they obviously were interested enough in me that it was a fit. But I couldn't tell you if the same fit was impossible before—

**PC:** Earlier depending on who the Director was and I take it this was a Zerhouni appointment?

**BK:** No; I moved when—when Ruth Kirschstein was the Acting Director of the NIH. Bill Harlan was still the Associate Director for Disease Prevention and first I moved into his office as the Head of the Office of Medical Applications of Research and I think that interested me of course because of my strong orientation to research methodology and applications of Research. And then Bill retired soon after that and Ruth asked me to takeover his position as Associate Director.

**PC:** Ah okay and then—and then you stayed on under—?

**BK:** And then let's see; she was the Acting Director for probably a year or two after that and then Dr. Zerhouni

**PC:** Zerhouni yeah; uh-hm.

**BK:** Yeah; uh-hm.

**PC:** And—

**BK:** And Dr. Zerhouni is very supportive—I should say *was very supportive*. He's left the NIH. But I always felt like we clicked and I had a sympathetic ear when we were discussing science.

**PC:** Now does—does the Division of Cancer Protection work—Prevention, I'm sorry—work with other NIH Institutes?

**BK:** Uh-hm.

**PC:** So you know besides NCI, for example the Institute of Environmental Health Sciences?

**BK:** I'm not aware of any strong connections with Environmental Health Sciences. I do know that they have had studies in concert with NHLBI and right now just by circumstance my Secretary is setting up a meeting between Investigators in NCI and NHLBI, one potential idea for you know for a Prevention Trial. Because of my personal connections, I now know people in different Institutes and so I'm able to link people. And so the answer is yes; it doesn't go on all the time but personal connections help and—and with the road map that Dr. Zerhouni set up there's a more formalized approach to getting Institutes to work together.

**PC:** Uh-hm; and—and was this something you learned from Ruth Kirschstein who always had good connections everywhere?

**BK:** Well she had more connections than anybody I'm aware of except for maybe her husband. [*Laughs*] That's a real power couple and I did learn from them. Ruth certainly has that quality—think broadly and involve as many people as you can from a broad spectrum of backgrounds and expertise to get the job done.

**PC:** And when you were heading up the Early Detection Community Oncology Program, what—what would you estimate or say would be your great contributions there?

**BK:** Gosh I did my best to try to get all the individual branches working together and collaborating and I think there were some notable successes there. I brought my—

**PC:** On the studies you mean?

**BK:** Yes; We introduced more molecular studies into the ongoing Public Health Studies and Community—the CCOP Studies. I think that my research background—by then—

**PC:** When you say CCOP?

**BK:** The Community Clinical Oncology Program.

**PC:** Okay, okay.

**BK:** And I was able to champion some of the studies before the Boards including the PLCO and the Breast Cancer Prevention Trial. I think I was able to bridge the two worlds of Therapeutics and Prevention because I could speak to people in Clinical Therapeutic Oncology with Knowledge of the types of issues they face and then the study designs that would appeal to them and also to the Prevention community. And so perhaps that was my strength but it was certainly what I enjoyed the most being able to draw on my experience in both worlds when I was discussing and planning large studies.

**PC:** Uh-hm; and when—when you left DCP to—was it—well I always say you know Peter's alumni move on. Has that helped strengthen the program as well—that is the DCP's Program?

**BK:** [*Laughs*] He was [inaudible-00:37:23]—did my departure substantially strengthen the Division I left? I don't know. [*Laughs*]

**PC:** No; that's—that's not quite what I mean. If alumni go out they sort of spread the good news. [*Laughs*]

**BK:** Right; yes, I have certainly been a walking advertisement for the Division and Peter's area of Research and I also learned a lot from Peter and the others there. So to that extent I remain a champion and supporter of them. And I actually still work on some of the same trials that I was involved in before I left. Because I believe that research that they're doing is so important I remain very actively involved in two of the very large

Trials. I feel like I benefit them. I see an opportunity to collaborate with Research in another Institute I can bring that up as I'm doing currently.

**PC:** Uh-hm; and when you say you *learned a lot from them* what—what pops into mind as two or three of the substantial—?

**BK:** Well I'd say I learned the rigor of Prevention science from Peter and enjoyed the support of trying to maintain the rigor of the research. I learned another thing from Peter and that is how to engage a very broad spectrum of opinions and perspectives. He was very good at listening to divergent viewpoints and even strong points of disagreements with him and was very good at learning from those discussions. I've tried to do the same. I've learned how to run large trials; all the trials that I had previously been involved in were on a smaller scale. Therapeutic trials tend to be. And I've learned from Leslie Ford and the people in her group what it takes to run a very large trial. I've learned from John Gohagan the same thing; He's another one of my heroes in terms of his skills in organizing large trials. So I think that I learned both the theory of Prevention and the practice of Prevention especially the very hard practical issues involved in launching large trials. I've named several people that really were high points in my career and being involved with them. Peter certainly, Leslie Ford, Lori Minasian, the statisticians; they have a very strong Statistics Group, Phil Prorotz—I learned a lot about the Statistical Design of Studies; David Byar who passed away but was really a giant. It was a delight.

**PC:** How do you spell that?

**BK:** B-y-a-r—and I mentioned Leslie Ford, John Gohagan; it was you know just a delight—Martin Brown, the Economist. I learned an amazing amount from him about cost effectiveness analyses and how to be really rigorous about the economics of cancer. And all of that I think also helped me as a journal editor. You may know that I'm the Editor in Chief of the *Journal of the National Cancer Institute*.

**PC:** Yes;

**BK:** The journal, oddly enough has no connection whatsoever anymore with the National Cancer Institute or with the Federal government. All of those early connections I think were positioning me to become a better Editor in Chief. Once you become an Editor you can continue the self education process. Every night I learn more and more by going through new manuscripts. I would say that those connections in DCP and in DCT before that, gave me the background to continue the learning process in my current job and as Editor in Chief.

**PC:** And—and the—the Editorship you say is no longer attached with NIH at all so this is an outside professional involvement?

**BK:** Right; it's an approved outside activity. The JNCI used to be owned and published by the National Cancer Institute. When I first became its Editor in Chief I was on the staff of the National Cancer Institute and I did it as an official duty. But the Director of the

National Cancer Institute back then, Rick Klausner felt that the *Journal* would be vulnerable to economic vicissitudes and some might question why a Research Agency funded a journal. So he wanted it privatized. And so Oxford University Press, which is a non-profit academic publisher, took over the *Journal*. They have since reappointed me as Editor.

**PC:** Uh-hm; and—and the—so the—the application of what you've learned at—well both at Maryland and at Hopkins, how—how much of that still applies?

**BK:** All the time every day in almost everything that I do, so I think that learning the theory in the School of Public Health and learning the practice in the Division of Cancer Prevention and now where I am make a perfect match. It all comes together every night when I go to the *Journal* because I have to judge the strength of studies and designs and the nitty-gritty of the trials and of the studies. So it's a very happy circumstance since I use so many of the skills that I've picked up along the way in jobs that I've had as well as formal training.

**PC:** In the 1995 book on Cancer Prevention and Control, what impact has that had—well I guess over the past 15 years now in the profession?

**BK:** Well are you talking about Peter's—?

**PC:** Yeah; the one that you and he—.



**BK:** Oh that book—oh, oh yes, yes, the—the Reference Book?

**PC:** Yes.

**BK:** [*Laughs*] I couldn't say for sure; I have heard a lot of positive feedback about it so at least in some quadrants it is held in high regard. I'm very proud of the book. I wouldn't be able to point to anything absolutely tangible that I know happened as a result of it but I'm very proud that it's out there and I learned a lot from even editing that book.

**PC:** In the—now on what—almost 20 years since you've been—been in that office, what would you say are the major changes or as you look back—major changes that have taken place in that—those two decades?

**BK:** Well the number one change is I believe that increasing rigor and methodology has been applied to the field of Cancer Prevention. The means of judging evidence, the criteria by which studies are judged has changed in a good way and—

**PC:** What—what caused that?

**BK:** Well the tone is set from the top, so I have to say that was Peter's vision and he gathered people around him who shared that vision—me being one of them. So I think it was just the, evolution in the field which was led by Peter and the people he hired. Then

molecular and dietary research—got more and more sophisticated, so over that same era the actual mechanisms of the effects of dietary components on normal cells and on pre-malignant cells was evolving and again that was because of Peter's very strong background and interests in diet. It wasn't to the exclusion of the other Public Health Studies but the basic research that he brought into the Division I think enriched the classical methods of dietary research.

**PC:** Uh-hm; so those two—those two changes?

**BK:** Yes. I guess you might say the visibility that the Division gave the field.

**PC:** Uh-hm; and to the point where today it is—fill in the blank.

**BK:** [*Laughs*] A recognized strong component of the Cancer Institute's Research efforts. I think before 20 years ago or before 25 years ago I think it probably had to be considered a secondary thought—and not on the front burner. I think that the last 20 years or so have changed that.

**PC:** And—and has—has generally that changed with the people's view of cancer as well—the public's view?

**BK:** Well I think that the public has increasingly appreciated the importance of Research and Prevention. Treatment will always be a very important component of Cancer Research

because people in the public who are affected or see family members, they of course want the best therapeutic outcomes. But I think over the last 20 or 25 years there's been an increasing focus by the public and the elected representatives on Cancer Prevention.

**PC:** And—and—and this is also true with NCI itself?

**BK:** It varies; you know depending on the philosophy as always of the Director but I think that every Director feels at some level that Prevention is very important.

**PC:** Well you know I go back and I say well in my own history what was the first time I really started to think about it and I suppose it was when C. Everett Koop became the public voice for Prevention.

**BK:** Yes; I think that certainly was a very big boost to the field of Prevention and Tobacco Control as well.

**PC:** And I don't know; I've never talked to Peter about whether he—whether that had an impact on him but I suspect it did.

**BK:** I know that Peter thought very highly of C. Everett Koop.

**PC:** And—and you know in taking that and making it a—a Public Health issue for the first time and—.

**BK:** Yes; I think that's right. They got it onto the front burner.

**PC:** Though I think it was a—if I recall he was not the first to speak out—first Surgeon General to speak out. I think some—I think Kennedy's Surgeon General actually spoke out against it and mentioned it but it was putting it on the cigarette pack and—and making it public you know—it really—bully pulpit.

**BK:** Yes; but he really gave it a big boost. I think it might have been Luther Terry.

**PC:** That's right it was; you're exactly right.

**BK:** —started the ball rolling but C. Everett Koop certainly accelerated it.

**PC:** Well is there anything we have missed that you would like to mention?

**BK:** I don't think so. You've been complete.

**PC:** Well I—I hope so but I'd like to take the—always make the pre-invitation if you will to get back to you if there's some other questions that might come—come up.

**BK:** Oh it would be my pleasure.

**PC:** Terrific; well thank you very much. I appreciate your help today.

**BK:** Oh you're welcome.

**PC:** And I enjoyed the conversation.

**BK:** Thanks; same here.

**PC:** Thank you; bye.

**BK:** Bye.

[End of Interview]