President's Cancer Panel Meeting

Meeting Minutes

IMPROVING CANCER CARE FOR ALL: APPLYING RESEARCH RESULTS, ENSURING ACCESS, ENDING DISPARITIES

A Roundtable on the Issues

March 8, 2000 Bethesda, Maryland

Overview

The President's Cancer Panel was chartered to monitor and evaluate the development and execution of the National Cancer Program (NCP) and to report to the President on barriers to Program implementation. This meeting is the first in a series to explore issues that affect the ability of communities to provide cancer care - including prevention, education/communication, detection, treatment, diagnosis, rehabilitation, palliative, and end of life care - to people in the diverse neighborhoods of the Nation. This meeting brought together 11 Federal and private sector discussants to examine in a roundtable format the issues to be pursued at the regional meetings.

Meeting Participants

President's Cancer Panel: Harold P. Freeman, M.D., Chairman; Paul Calabresi, M.D., Frances M. Visco, J.D.

National Cancer Institute: Maureen O. Wilson, Ph.D., Assistant Director, NCI, and Executive Secretary, President's Cancer Panel Otis Brawley, M.D., Director, Office of Special Populations Research

Discussants:

Dr. Charles Bennett, Veterans Administration Chicago Health Care

Dr. Otis Brawley, Office of Special Populations Research, National Cancer Institute

Ms. Susan Butler, Ovarian Cancer National Alliance

Dr. Ralph Coates, Division of Cancer Prevention and Control, Centers for Disease Control and Prevention

Dr. Peter Greenwald, Division of Cancer Prevention, National Cancer Institute

Dr. Robert Hiatt, Division of Cancer Control and Population Science, National Cancer Institute

Dr. Jon Kerner, Lombardi Cancer Center (now of the Division of Cancer Control and Population Science, National Cancer Institute)

Ms. Suzanne Reuben, Progressive Health Systems

Dr. Allan Rosenfield, Mailman School of Public Health, Columbia University

Dr. Donald Sharp, Office on Smoking and Health, Centers for Disease Control and Prevention

Dr. Edward Sondik, National Center for Health Statistics, Department of Health and Human Services

.Opening Remarks

Dr. Harold Freeman

In opening the meeting, Dr. Freeman reviewed the work of the President's Cancer Panel leading to its upcoming series of meetings, stating that: annually to the President, and to

bring to the immediate attention of the President any delays or blockages in the rapid execution of the Program.

- The purpose of today's meeting is to discuss and refine the premise for a series of public meetings extending into 2001. These meetings will focus on how to ensure that research advances are incorporated into routine practice.
- The upcoming series of meetings is an outgrowth of several meetings in 1999 that focused on evaluating the National Cancer Program (NCP). The Panel heard testimony on the genesis and evolution of the NCP and on social, political, demographic, economic, and scientific changes since the Program was established by the National Cancer Act of 1971. The Panel also heard testimony on disparities in cancer care access and on the disconnect between advances in research findings and the delivery of the benefit of those findings to the public.
- Through these meetings, it became clear that the NCP has from its inception been weighted heavily in favor of research, with inadequate emphasis on effective delivery of research results to reduce the burden of cancer on the American people.
- Much of the testimony provided to the Panel in 1999 supports the conclusion that the NCP has suffered from a lack of coordination and a lack of clarity as to its definition and scope.
- Many speakers also agreed that it is probably impossible, and perhaps not desirable, to coordinate either cancer research or cancer care delivery through a centralized agency. Instead, the Panel heard that better coordination is needed between the discovery and delivery components of the NCP.
- Research is not sufficient to address the national cancer problem. Actions are
 needed to apply research findings to improve cancer care access, delivery, and
 quality. Research agencies, including the NCI, are being asked to answer for the
 consequences of insufficient and inequitable delivery of cancer care they cannot
 solve this problem.
- As a Nation, we need to find ways to balance our efforts to address: the application of research findings; access for all Americans regardless of geography, economics, or culture; education and communication; primary and secondary prevention; cancer control; cancer care delivery (including screening, diagnosis, treatment, rehabilitation, symptom control, and end of life care); and quality of life for cancer patients, survivors, and their families.
- There are actions to be taken at the national level, but solutions to cancer care access and delivery problems must occur at the local level, tailored to our diverse populations.
- To give direction to the Panel's deliberations on these issues during the upcoming series of regional meetings, the following questions have been proposed:
- What must be done to ensure that the benefits of research are incorporated into routine practice?
- What must we better understand to address the critical issues and to implement solutions at the national (macro) and local (micro) levels?

- What are the social and economic forces that need to be influenced at the national, regional, and local levels to make a significant difference in the quality and consistency of cancer care?
- Who is underserved for cancer prevention, cancer control, and cancer care?
- What infrastructure, legislative, policy, and organizational/system changes are necessary to implement solutions?

Today's participants are asked to advise on the adequacy of these questions, and on how the Panel should interpret the information it will receive in the coming year in view of social, cultural, political, and other biases in reporting that it may encounter.

Dr. Richard Klausner

Dr. Richard Klausner, Director, NCI, indicated that:

- In considering the issue of coordination between research, public health, and medicine, we need to examine ways in which these components can be integrated to help assure application of the fruits of research and to improve our capacity to conduct research within the public health and health care systems. Such an integrated approach has the potential to bring some of the values of research (e.g., orientation to seeking improvement) to these other systems.
- We do not yet know the full capacity of the knowledge-seeking system. Integrating research across the health care and public health spectrum has significant potential for disseminating advances, and could drive change through outcomes and public health research.
- To better understand access issues, we need to move from anecdote to data (i.e., we need to capture information on access issues in a systematic, routine manner).

Discussion

- There has always been a tension between the public health-oriented model of care and an individual-oriented approach to care, which extends to the types of applied research that are conducted. There also is some debate as to the extent to which NCI should be involved in applied research.
- It is a disservice to the research process to separate types of research; instead, we should categorize by type of inquiry. Applied research, as it is traditionally defined, is well within NCI's charge.
- Pediatric clinical trials offer a model for the integration of research across the continuum of research and care. Seventy percent of children with cancer participate in trials, which integrate the practice of medicine with a system of protocols.
- Remarkably little data exist on patient outcomes; this shortcoming is recognized.

With regard to cancer health disparities, we need to define and describe groups
experiencing disparate care and outcomes; this will be a moving target. It is
critical to collect data about disparities, including cultural and access factors that
contribute to disparities, in order to generate research questions that may lead to
solutions. We also must improve our ability to communicate the results of
research on disparities, and other research results, to influence individual and
health system behavior.

Dr. Edward Sondik

- Currently, we do not understand health disparities very well. Our conceptual basis is still weak, and we need to identify action points at which outcomes will be sensitive to change. Two kinds of research are needed: short-term research to determine what disparities exist and how they can be changed across the continuum from prevention through rehabilitation, and long-term research (i.e., longitudinal studies) that examines the effect of factors such as poverty and class.
- However, we cannot wait for the results of research to address disparities. A quality control approach should be taken, consistent with the increased focus over the past few years on quality of health care. Feedback is an essential component of such an approach; when someone performs an action, he or she needs to get feedback to understand how that action fits into the spectrum of activity. This is different from simply measuring one's adherence to a research protocol. We now have the technology to enable physicians to record their actions and receive feedback on how their actions in a given situation fit with the actions of other physicians in the same network, for example, or treatment guidelines or protocols. This type of quality control, especially if managed by peers, could have a significant positive impact on treatment and rehabilitation.
- Quality control in prevention and early detection is more difficult. We need to
 better understand the barriers in these areas. Short-term research is needed in
 these areas, as is the help of individuals and organization from outside the cancer
 community. For example, "Today Show" host Katie Couric's efforts to raise
 awareness of colon cancer and colon cancer screening appear to be breaking the
 barrier to public discussion of these topics.
- To better understand the nature of disparities, we need to increase health services research, which heretofore has been only a small part of the National Cancer Program. This research should be focused on specific population groups, to better understand their knowledge of cancer, the knowledge level of the professionals with whom they deal, and the points of sensitivity at which actions and behaviors can be changed.
- We need to know the effect of specific actions on cancer outcomes, in the same
 way we know the lung cancer level of a population that does not smoke.
 However, for most cancers, we do not have this sort of information, and do not
 know what action(s) will produce a desired effect. In part this is because we do
 not know the influence of factors (e.g., poverty, education, childhood events) that

- are not under our control. Only longitudinal research will provide some of these answers.
- In addition to short-term research to focus on actions we can take now, long-term research on cancer and other diseases, and exploiting information technologies to improve quality, we also should use technology to ensure that individuals are aware of treatment options and their right to full information.

Dr. Allen Rosenfield

- As a community obstetrician/gynecologist, Dr. Rosenfield's perspective is that of a public health practitioner. Of late, discussion has increased about the interactions between medicine and public health. Medicine treats the individual and provides personal services; its intent is curative, focusing on diagnosis and treatment of disease. Public health practitioners treat populations as their patients and look at broad issues of population-based care; their focus has emphasized prevention of disease and promotion of good health. Public health interventions tend to be aimed at environmental, behavioral, and lifestyle factors, and at preventive medical care.
- When the Mailman School of Public Health and the Harlem Hospital Center
 collaborated to implement the CDC-funded Harlem Health Promotion Center, the
 Central Harlem community to be served was vocal in its belief that the
 community did not need more research; it needed programs to bring to residents
 those services already known to be missing.
- In developing new public health goals (Healthy People 2010), the Federal government has for the first time designated single goals in identified areas for the entire population, rejecting the legitimacy of different goals for people of color and the white population.
- Interest in translational research appears to be growing. Among NIH institutes, NCI is one of the best at examining the preventive and population-based issues that grow out of its research. In addition to disparities in health care for people from different backgrounds and cultures, there is an extraordinary disparity in research funding for preventive and population-based research compared with other types of research. For example, CDC's extramural prevention research program is minute compared with NIH basic research funding levels. Many in public health support the NIH budget increases, but would like to see comparable increases in the CDC budget. Similarly, the budget of the Agency for Healthcare Research and Quality (AHRQ) is smaller than all but one or two of the NIH institutes; this agency needs far more funding to adequately study outcomes and health services research questions.
- At this time of unprecedented economic growth, it is unconscionable that we now have 44 million uninsured people in our country people who are getting nothing but emergency room care. These people have little access to preventive services, and disparities in mammogram, Pap smear, colonoscopy, and prostate cancer screening rates are dramatic between groups with and without insurance.

- One of the most important areas of research is on how to increase access to services known to be effective. Nearly a decade ago, Dr. Freeman and Dr. McCord published a paper comparing adult male life expectancy in Bangladesh, one of the poorest countries in the world, with that in Central Harlem. The study showed that adult male life expectancy was higher in Bangladesh. The difference was due to inadequately treated chronic diseases such as hypertension, diabetes, and cancer, not to violence or crime. This embarrassing, disturbing finding is a condemnation of many aspects of our health care system. We need a variety of population-based research efforts, but we also need to refocus our national attention on the problems of those who are underserved, uninsured, and/or not receiving the benefits of effective, available interventions.
- In addition, where access has been improved, we need studies to assess utilization rates and identify cultural and related behavioral factors that interfere with optimal uptake.
- In preventive education, we need to use public media and find ways to make information culturally adaptable and culturally understandable by working with local groups in developing media efforts. Moreover, it is important to work not only with physicians, but all health and health-related professionals who interface with patient groups, and with community organizations that interface with people in the community.
- Refocusing efforts in these areas will begin to make a difference in cancer care
 and health care more generally. However, until we deal with the basic issues of
 access to care, poverty, and the inadequate allocation of resources in the public
 health arena, we will have difficulty meeting established goals and answering
 some of the questions the Panel has raised.

- Integration of effort is easier in a Federal agency if various components are clear about their roles. Both within and between agencies, integration and collaboration are easier if budgets and other resources are adequate, which enables people to be less concerned about protecting their "turf."
- Currently, there is no uniform approach to collaboration among NIH institutes. Issues that affect collaboration and integration of effort differ at various agencies. For example, the Food and Drug Administration (FDA) suffers for lack of a unified campus. In addition, the agency needs a stronger science base, stronger programming in both the food and drug areas, and the authority to address tobacco issues, particularly concerning smoking and children. The National Center for Health Statistics (NCHS) is seriously underfunded for the essential work it does. NCHS statistics enable us to identify disparities, monitor our progress in addressing these and other health issues, and refocus programs. Moreover, securing funding has been difficult for the agency, and its programs have had to be modified to fit the wishes of those providing funding. The President's Cancer Panel could assist NCHS by emphasizing its importance.

- Though public health issues require much greater research attention, the reward system in academia does not encourage attention to disparities, public health questions, or collaborative effort. Few research universities give tenure to researchers who do community outreach work or even applied studies in the community. Rather, tenure and promotions are awarded for being first author on a paper on which the lab chief's name does not appear (i.e., showing independence, not teamwork). To get the level of involvement needed to address public health issues appropriately, the reward system may have to be changed. It was noted that at some universities, applied and translational researchers who do quality research with epidemiologic, sociologic, or anthropologic tools and are published in well-respected journals will be promoted. It was agreed, however, that community service-oriented individuals doing primarily service work do not fare well under the existing system.
- Funding for extramural research at CDC, the principal public health agency in the country, is grossly inadequate. Similarly, funding at AHRQ, the primary health services research agency in the United States, is inadequate to support the work the agency is charged to do. AHRQ's budget has not grown over the years, and its purchasing power has dropped markedly over the past 20 years. At the same time, the health care system has become far more complex.
- The power of providing statistics on the state of health in a population has been amply demonstrated. Such statistics cannot be generated, however, without a critical mass of people and resources to do the work; this critical mass is not currently being supported. We could learn an enormous amount if we focused resources on understanding disparities and following sizable populations (children, young adults, middle age, seniors) over a long period.
- Gathering data on populations in greatest need is extremely difficult; many do not have telephones and are not available for interviews except in the evening. In addition, these populations are tired of being studied while disparities worsen; they must be made partners in the research in ways not previously contemplated both to define the questions and to participate in answering them.
- The gold standard for tracking cancer trends has been the Surveillance, Epidemiology, and End Results (SEER) program, but as currently configured, it is incapable of measuring, for example, how racial segregation impacts cancer incidence, morbidity, and mortality. Many of our systems were designed with the assumption that such issues would be addressed at the individual level. As we move toward addressing health disparities and examining how influences such as system factors, local economic disparities, and racial segregation affect disparities, we will need to determine how we might measure these factors within existing systems, or how data collection must be expanded to provide the needed information.
- At the CDC, the research questions of interest generally are generated from within the agency, rather than by the community. Currently, there is no mechanism equivalent to an NIH investigator-initiated R01 grant to support the study of questions arising from communities or individual investigators. NCI is about to launch perhaps the first partnership research model that requires participation by the community in developing research questions and designs. This model holds

- great promise and will need to be evaluated to see how it can be transferred to other research areas.
- When funding is scarce, communities particularly needy communities have
 little incentive to participate in research. To secure greater funding for
 participatory research, the public must understand the value of research and be
 engaged in defining the questions; the community's demands for funding will be
 more persuasive than those of the researchers who conduct the studies. In
 addition, community leadership must be made part of the research system and the
 research conducted must supply information of use to the community.
- It is necessary to recognize the difference between applied research and delivery. The point exists at which populations do not need more research to understand the barriers they face; they need services and other interventions that meet their needs for care. Documenting the situation may be a part of research, but ensuring that an individual can and does receive needed care is not.
- The Panel has grappled with the issue of tension between medical and public health approaches to meeting the health care needs of the population. There has been far greater funding for medical approaches than for public health approaches. Politically, little attention has been paid to health system issues that affect access among poor and uninsured populations.
- This country in general subscribes to the notion of equal opportunity (e.g., in education) but not equal outcome, which in part may explain why it has been difficult to focus attention on eliminating health disparities; the emphasis has been on equal access to care, not the outcome of care received. This philosophical dilemma likewise becomes clear when arguments are made for the elimination of economic and educational disparities.
- Significant social change can occur when the public becomes sufficiently concerned about an issue that it drives the political system. The issue is how to create public concern and cohesion to stimulate that process. The key is to inform and empower the public.
- Access to quality health care should be considered a human right. The U.S. is the
 only industrialized nation in which health care is a privilege rather than a right.
 However, it was noted that other nations provide basic care, but not sophisticated
 cancer care, as a part of their national health systems. It was further noted that
 comparisons of outcomes in these national systems have to date been extremely
 difficult.

Dr. Charles Bennett

Key Points

• Dr. Bennett's work with Veterans Administration (VA) health care beneficiaries suggests that access alone is not sufficient to ensure the provision of (quality) health care. In prevention studies, including the Prostate Cancer Prevention Trial, low literacy has been found to be an important barrier to health care in a population that has good access yet remains underserved. The importance of

- literacy levels to health care delivery has been under-discussed and under appreciated.
- Achieving access to prevention efforts is difficult; there is resistance in the form
 of cultural, social, and economic barriers, even if financial reimbursement is not a
 barrier. Informing patients about studies and about opportunities for prevention
 and early detection also is challenging. Informed consent is becoming more of an
 issue, not only in research, but in clinical care. In addition, retention is an issue in
 prevention efforts, which require long follow-up.
- Recruitment and retention efforts in prevention studies involving minority and
 low literacy populations must take into account factors including social support,
 family involvement, and literacy levels. Cultural appropriateness also is an issue
 in recruitment to prevention trials, perhaps particularly so in Hispanic
 populations. The Institute of Medicine (IOM) panel evaluating NCI efforts for the
 medically underserved included educational level and financial position, in
 addition to race and ethnicity, in its definition of factors contributing to or
 defining underservice.
- The VA experimented with a shared decision-making model that used CD-ROM technology. The veterans enjoyed using the technology, but most improved neither their comprehension of prostate cancer nor their understanding of treatment options as a result of using it; this was determined to be a literacy issue.
- Among prostate cancer patients at the VA centers, African American men present with more advanced disease than white men, despite equal access to services. It was found that the low literacy rate was 55 percent among African American men compared with 10 percent among white men. When the data were adjusted for differences in literacy, the racial difference in stage of disease at presentation was no longer statistically significant. These findings suggest that low literacy is an important and overlooked barrier that affects when patients access the system.
- Other studies have suggested that physician choice of treatment for prostate
 cancer patients is affected by type of health system (e.g., fee-for-service or
 managed care). Willingness to participate in quality assurance committees is
 affected by physicians' perception of impact on referrals if they are critical of
 another physician. There may be greater willingness to participate in continuous
 improvement programs when reimbursement is provided under a capitation
 arrangement.
- Culturally sensitive efforts are needed to improve access and address low literacy, financial, cultural, and bias barriers. In the VA setting, randomized clinical trials seem to be the most effective way of determining which interventions work best.
- Unlike some European countries, the U.S. the medical and social health systems are not integrated. The 44 million uninsured in this country reflect in part the social differences in the U.S., which are greater than those in many other nations. Our government, however, is currently unwilling to consider global changes to address the problem of the uninsured; therefore, we must use incremental approaches to make progress against this problem.

Dr. Otis Brawley

- Responding to the IOM report, *The Unequal Burden of Cancer*, the NCI has held a series of meetings over the past year in part to define the term "medically underserved." Participants in these meetings who treat patients felt this term referred only to people who did not get medical service once diagnosed. It was decided that a more encompassing term was simply "underserved." Though the precise definition of this term is still under discussion, it is meant to recognize that many of the factors that contribute to disease (including, but not limited to cancer) come from the environment, with deprivation or poverty being one of these factors or perhaps being a surrogate for some environmental factors. These have been referred to as "upstream" factors that must be considered if we are to prevent disease. Thus, the underserved include not just people who do not receive treatment after diagnosis, but people who are diagnosed late and who present with disease only after having symptoms for a protracted period.
- Disparities in quality of care received have been and continue to be documented.
 Drs. Brawley and Freeman recently published an editorial on this subject. In
 1993, Congress mandated that NCI conduct subset analyses in its clinical trials to
 determine any differential effect of a drug or treatment on whites, blacks, and
 other minorities. These subset analyses (completed for all major cancers) have
 shown that equal treatment yields equal outcome.
- SEER patterns of care studies, however, document disparities in care. Twenty years ago, mortality rates were equivalent for black and white men with colon cancer, black and white women with colon cancer, and black and white women with breast cancer. By 1995, rates in all three groups had become clearly disparate. At the same time, SEER has noted increasing disparities in the number of black women getting or completing radiation after lumpectomy. Similarly, disparities are increasing in the number of individuals captured in the SEER data (one in 20 black women, one in 50 white women) who are diagnosed with breast cancer but then do not get at least minimum quality treatment (e.g., mastectomy or lumpectomy). Until relatively recently, this growing treatment disparity was unknown, although increasing disparities in mortality were recognized.
- Because of the American obsession with race, it often has been assumed that mortality differences are due to biologic differences in the disease itself in individuals of different races. A number of studies show that the pathologic differences commonly observed in black women with breast cancer (e.g., increased grade within stage, decreased estrogen receptor positivity) also are more prevalent in poor white women in Cleveland and in London compared with wealthier white counterparts with breast cancer. However, it is never suggested that there is a genetic difference between rich and poor white people. The above underscores Dr. Sondik's statement that there are factors associated with poverty that influence the pathology and biologic behavior of disease. These factors remain to be elucidated.

- In the military's TRICARE health insurance system, the mortality disparity between black and white women with breast cancer was halved simply by making care available. At the same time, other studies indicate that despite having access, many women did not utilize the available care.
- As we set a research agenda, three major areas will need to be addressed: access
 to care, the reasons why people with access still may not avail themselves of care,
 and physician-patient communication.

Dr. Robert Hiatt

- Two basic observations are driving the concerns of the group: (1) health disparities exist in cancer incidence and outcomes, but these disparities are poorly understood, and (2) the translation of research results into application has not taken place consistently or sufficiently.
- The research agenda needs to be broad enough to encompass some of the fields that focus on the sociologic and public health issues involved in prevention and early detection, as well as those involved in treatment. It is understandable that those in the treatment arena are more likely to focus on effecting change in the area with which they are most familiar. Focusing on access and outcome improvements is laudable, but it also is important to address the larger, more broad-based research agenda that includes the social and cultural determinants of disease.
- NCI has established a four-point quality of cancer care research agenda that will focus on: (1) developing quality of care outcome measures and process measures based on a review of published measures and guidelines and input from the extramural community, (2) developing an empiric base of information about how process in cancer care is related to outcome, an area about which we currently know little, (3) using the restructured NCI clinical trials system to improve the capacity of clinical trials to provide information about quality in terms of both traditional and patient-centered outcomes, and then translating this information into practice, and (4) employing the revolution in informatics and information technology to improve cancer communications at all levels (e.g., between patients and providers; between the scientific community and providers).
- Secretary Shalala has endorsed the idea of using cancer as a model for how to
 translate research into application. NCI believes the patterns of care and other
 quality-oriented studies conducted over the past decade, and the existence of
 established cancer registries, provide a firm foundation for current and planned
 efforts to measure and track quality and optimal methods of translating discovery
 into delivery. Dr. Klausner is highly enthusiastic about this effort, and NCI is
 collaborating in these areas with colleagues at CDC, NCHS and the American
 Cancer Society (ACS).

- A 1993 study conducted at a national VA hospital found that compared to white men, black men were significantly less likely to receive a full work-up (e.g., including cardiac catheterization) for reported chest pain. A 1999 follow-up study conducted by Dr. Bennett and colleagues likewise found disparities in the use of laparoscopic gall bladder surgery between black and white patients in the national VA health care system. Because of these striking racial disparities in care within an equal-access system, the VA has launched a major initiative to determine and rectify the causes of the disparities. It currently is thought that while differences in literacy levels may be one contributing factor, literacy may not be the major operative factor. It is speculated that social and cultural factors, including distrust, may also have a role in observed disparities, particularly in the form of poor communication between patients and physicians of different races. In addition, Dr. Bennett has observed in his work with prostate cancer patients a reluctance among some VA African American patients to embrace new medical technologies or surgical techniques, and an aversion to surgical procedures more generally.
- Data from studies of general and family practitioners in community practice
 indicate that physicians form stereotyped views of their patients based on skin
 color, income, and insurance. Those views may alter the communication of
 treatment options, patient choices, the actual treatment received, and outcomes.
 Though such bias issues are difficult to confront, it is important to do so if
 disparities are to be understood and ameliorated.
- In the coronary care study previously mentioned (Schulman, et al.), even after controlling for racial attitudes, the differences in care were not eliminated. This finding suggests that other factors were at play that were not readily apparent from the data.
- In Finland, the medical and social health systems are integrated and administered by a department of public health. The Finnish culture is quite different from that in the U.S.; a much higher taxation rate supports a philosophy of equal access and equal opportunity. It is unlikely that this approach could be transferred to the U.S. health and social welfare systems.
- Research findings can be incorporated quickly into routine practice. Dr. Bennett cited a 1990 study on the use of corticosteroids to control pneumocystis carinii pneumonia (PCP) in HIV-positive individuals. By 1995, a follow-up evaluation showed that 80 percent of patients were receiving corticosteroids for PCP. Another study conducted by Dr. Bennett and colleagues and now under review for publication found that African American patients treated in urban hospitals received 30 percent better care and had better outcomes for HIV-related PCP than white patients treated in suburban hospitals. This may represent one of the first documented situations in which black patients received better treatment and had better outcomes than white patients. The study also found that African American patients were far more likely to have a risk group (e.g., gay or bisexual,

- intravenous drug user) recorded in their file compared with white patients. Failure to determine risk was linked to inappropriate treatment for PCP.
- Relatively few people with cancer are uninsured (approximately seven percent), since 70 percent of people with cancer are over age 65 and therefore Medicare beneficiaries. Many of these people may be underinsured, but the proportion of uninsured with cancer still is better than the uninsured rate of the general population.
- The IOM report on quality of care included ten recommendations. Approximately half of these are approachable with research methods improve surveillance, establish data systems, develop core data sets, study how best to intervene in communities with health disparities. The remainder (e.g., individuals should go to hospitals that perform a high volume of high-risk surgeries or treatments for rare conditions; patients should be provided a complete list of treatment options at the time of diagnosis) are not amenable to research and require action from the broader community involved in providing care and information. Professional societies need to play a large role in improving quality and accepting the idea that research provides evidence that should be incorporated into practice.
- The initiative to make cancer a model for translating research into practice will call for NCI to collaborate closely with HCFA, CDC, the Department of Defense (DoD), and the VA. NCI is challenging itself to do a better job of applying research observations to improve quality of care at least within the Federal health care payer and provider agencies. This effort will, for example, require efforts to influence through research evidence HCFA's Medicare medical coverage decisions. Impacting Medicare decision making may be particularly important, since other public and private payers typically adopt Medicare reimbursement and payment policies. Dr. Jon Kerner is joining NCI as Deputy Director of Diffusion and Dissemination to help lead its research efforts to more quickly turn discoveries into delivery improvements.
- Ensuring that research findings are used to improve care has been a cancer control issue since at least the early 1900s, principally because doing so has never been the clear responsibility of any one, or any specific group, of organizations.
- Discussions about shifting the research paradigm to include more translational and applied research often stop short of addressing ongoing delivery issues. Even demonstration programs implemented by CDC are of limited duration unless they are subsequently institutionalized through legislation. The issues of how to improve access to and delivery of interventions known to be effective to all populations remain unsolved. Dr. Brawley related a relatively typical situation at a Midwest hospital serving a largely poor and minority population in which a participant in a CDC breast and cervical cancer screening program received a mammogram, but the film was not read until three months after it was taken. The woman, once located again, waited all day to see a doctor and receive a painful biopsy, after which she was told to return in two weeks for the result. In cases like this, many patients, though they have access to care, do not return and are never treated for their disease because of the inaccessibility and inconvenience (i.e., long waits, missed work, long distances to travel to receive care). Moreover, many such facilities have outdated radiation and other equipment, so that in order

- to receive conservative treatment, for example, patients must find another source of care.
- Research has a role in resolving delivery problems in describing the problems, and in demonstrating and documenting the effectiveness of new treatment, counseling, and educational interventions but it is not the answer to delivery problems such as those described above.
- It is not clear how far into the realm of delivery NCI's activities should extend. Research evidence shows that when a physician puts a patient on a clinical trial, his/her other patients, though not on trials, tend to receive more up-to-date care, ostensibly because the physician is more open to new methods and approaches than peers who do not participate in trials. This influence is far different than, for example, NCI providing ongoing funding for Patient Navigator Systems in all community hospitals. Most would agree that such an action exceeds the role that NCI should take in the delivery arena. It is not clear, however, whose job it is to persuade hospitals, other providers, or payers to include a given service known to be of value in their budget or reimbursement scheme. In addition, we currently have difficulty getting proven interventions paid for; when new (and typically more expensive) interventions become available, securing the necessary budget or reimbursement is even more difficult.
- It also was pointed out that we sometimes pay for services of questionable benefit (e.g., bone marrow transplant in breast cancer). Such services may then become part of the standard of care; this should not occur. The impetus for payment for a particular service may not come from evidence, but from other sources (e.g., Katie Couric and colon cancer screening for people under age 50). A question arises as to whether the system currently in place to make these payment decisions is adequate to achieve desired results (about which there also is controversy).
- CDC works closely with health departments and other partners to address cancer
 control- related issues, primarily in the areas of prevention, environmental
 controls, and risk factors. CDC does not, however, have a defined role in
 translating interventions in cancer treatment or care for other diseases (with the
 exception of diabetes) into practice.
- No single agency or organization is solely responsible for dissemination and diffusion of cancer research findings. NCI is in part responsible, and the institute's commitment to do more in this area will in part take the form of increased collaboration with other agencies that share the responsibility of ensuring that proven interventions are moved into practice. In this regard, NCI is examining the utility of a partnership model described by Norman Anderson in his article, "Push-Pull and Infrastructure."
- It is seldom possible to have all of the necessary infrastructure in place before intervention begins. In the case of the Harlem CDC breast and cervical cancer screening and Navigator efforts, the interventions were initiated knowing that the infrastructure was not in place to provide treatment services to women with diagnosed breast cancer. This situation created a serious ethical dilemma, yet it was necessary to be able to demonstrate that patients were not receiving needed care in order to get resources allocated for that care.

- Disseminating information about new interventions is insufficient to ensure its
 application. Incentives are required for both the public and providers to apply it,
 and reinforcement is needed to sustain behavior change. In the current system,
 responsibility for such incentives and reinforcement is unassigned. In addition, a
 better system of feedback is needed so that practitioners, insurers, and the public
 can measure their actions against those of others or against standards.
- Delivery problems in many areas of the country (and in other countries) stem in part from a lack of funds and equipment in community hospitals. Funding to support the provision of optimal cancer care must be provided, and these funds should not be taken from research allocations. The community hospital system is in disarray, with many facilities closing clinics and lacking sufficient funding to provide even basic care.

Ms. Susan Butler

- Any plan to disseminate information to the medical community and beyond must be designed to require almost no initiative from its overworked, overcommunicated target audience. Instead, designs for information sharing should be accessible, timely, and reach into target communities using appropriate vehicles. It should not be expected that information will penetrate the target audience after a single attempt.
- However organizations like NCI and CDC currently disseminate information to
 practitioners, the intended audience does not appear to be getting the message.
 Moreover, it no longer is sufficient to disseminate information solely to the
 medical community. We cannot rely on physicians to absorb the vast volume of
 information they receive. Consequently, it is necessary to develop other
 audiences.
- Despite their requirement that information be packaged simply and briefly, the media represent the best hope for disseminating information about proven cancer therapies to the public. This communication should lead patients and families to additional information without a great deal of effort.
- Nurses, nurse practitioners, therapists, social workers, and other health care
 providers also should be the targets of cancer information dissemination efforts.
 Professional societies and advocacy groups are other natural vehicles for
 information dissemination. Information also should be available around the clock,
 seven days per week.
- The method of communicating information is as important as the content. NCI
 and other organizations should work more closely with external information
 specialists who know how to deliver messages.
- The notion of the informed patient should be embraced. Patients will only become more informed with time, and informed patients spread information, helping not just themselves, but others in their community.
- Economic need will always overcome medical need; this reality must always be taken into account.

- Change will come from the political, rather than the medical, environment. The importance of communicating ideas effectively, particularly at the national and consumer levels, can scarcely be overstressed. Change will come, as it always does, when misery levels caused by the present system reach levels that demand change. Politicians are vote driven; if the votes are attached to ideas whose time has come, change can ensue.
- People will seek and find answers to their health care questions one way or another. Currently, 70 percent of Americans are using what they consider to be complementary or alternative medicine (CAM) practices. Until very recently, the established medical profession has largely ignored this activity. Now, under political pressure, some CAM methods are going to be tested in clinical trials.

Dr. Ralph Coates

- CDC shares the Panel's concern about the current disconnect between research
 and practice. CDC finds this disconnect to be a general one, but most apparent
 when looking at disparities in underserved populations. Upstream factors are very
 important in addressing disparities in underserved populations and understanding
 why these groups enter the health care system with greater disease burdens than
 other populations.
- Public health provides some means of addressing such disconnects, since one of
 the purposes of public health is the translation of research into health practice.
 Disconnects in treatment are important, but those in preventive services and
 interventions for environmental controls and risk factors are equally important; all
 must be addressed.
- Colorectal cancer is the second leading cause of cancer death. Research indicates that screening can reduce mortality by 30 percent, yet less than 30 percent of the population is adequately screened. We are at a point with colorectal cancer screening equivalent to where we were with mammography practice 20 years ago. Disparities exist both in disease impact and screening availability. The colorectal cancer mortality rate for African Americans is twice that of the lower risk groups (American Indians, Hispanic Americans, and Asian/Pacific Islanders); the rate for white Americans is 70 percent greater than the lower risk groups. Screening availability for African Americans and Hispanic Americans is similar, but 15 to 20 percent lower in white Americans (DR. COATES: this is per transcript-is this correct?) Mortality reduction through screening requires appropriate followup and treatment. Treatment practices have been shown to vary substantially within and among communities and among populations. The visibility of colorectal cancer as a disease should be increased, as should support for the CDC/NCI/HCFA colorectal screening initiative and the programs this collaborative effort can produce to have an immediate effect on disparities. Support and funding for colorectal cancer screening and treatment should be increased.

- Surveys and specific research studies show a general pattern of disconnection between research and practice and many instances of disparities. Systematic, routinely collected data are limited and are needed. Cancer surveillance systems play a critical role in identifying and monitoring disconnects between research and practice, identifying disparities, and planning and evaluating interventions to address them. Surveillance data also can be used to increase visibility and public support for cancer control. Data are particularly needed at the community level, where many of the interventions need to occur. The existing quality cancer registries (SEER, and those funded by the National Program of Cancer Registries) cover only 21 states; quality data are not available in the remaining states. In addition, treatment data are largely incomplete except concerning surgery. Further, data linkage between patients and their diagnoses, treatment, and outcomes is incomplete. As a result, it is difficult to do outcom
- e studies. Local data on preventive services and risk factors also are unavailable, and data are limited on community cancer control infrastructure, interventions, and policies.
- In 1994, only nine non-SEER states provided complete, quality surveillance data. By 1996, with funding under the National Program of Cancer Registries, the number increased to 15. For 1997, the most recent year for which data are available, the number will be over 20, but program resources are limited and greater support is needed.
- The following are needed: increased population coverage; research on methods for collecting treatment data; more research using population-based patient samples; additional patterns of care studies; and feasibility studies for collecting community-level, treatment data, particularly in managed care organizations.
- States and communities employ a range of cancer control categorical funding sources, programs, and initiatives. These have been extremely valuable and have helped reduce the cancer burden, but these disparate programs can be difficult to integrate effectively into a comprehensive approach to cancer control planning and programs. CDC funds several states to do comprehensive cancer control planning, enabling them to assemble partners and the stakeholders in cancer control and develop more comprehensive programs. The purpose is to integrate the range of activities from surveillance through evaluation, to cover all of the major cancers, and to address issues across the continuum of care from prevention through treatment. The goal is to more effectively establish priorities and encourage collaboration, information sharing, and efficient resource use. At a national level, more support is needed for comprehensive cancer control planning.
- Much research has been published on specific cancer control interventions, but no evidence-based consensus recommendations exist. Building on the U.S. Preventive Services Task Force's Guide to Clinical Preventive Services, DHHS initiated the Guide to Community Preventive Services. Its purpose is to provide evidence-based recommendations for effective community interventions for disease prevention. NCI and CDC are collaborating on the chapter on cancer, which will emphasize creating change in communities. The chapter is being developed with a multidisciplinary writing group and consultant team who are evaluating evidence and making recommendations. It is expected that this

- information will be useful in planning, funding, and implementing population-based programs. The Guide should be supported strongly. A similar guide for clinical treatment services might be developed to help diffuse new treatments into communities.
- CDC does not have an official definition of the underserved; the Breast and Cervical Cancer Screening Program's priority populations include underinsured or underinsured populations, the poor, racial and ethnic cultural minorities, the disabled, and those living in hard to reach communities.

- Partnership is the key to success in communities' efforts to create political change. For example, when the AIDS community began to work together effectively and their numbers were sufficiently great, change began to occur. In the case of cancer, the partnership between the medical and health care provider community and the advocacy community is the key to success. This partnership will require a short, intelligible, point-by-point analysis of what change is desired. This will require consensus between and among a considerable number of very strong-willed people.
- It was observed that political change comes when enough people have the same goal; in the cancer community, there may never be consensus about what changes are needed or desired. It may also be argued that by the time everyone speaks with one voice, too much compromise has occurred to effect really meaningful change. Possibly, change is more likely when those with outlying opinions become angry enough to demand something the majority of people consider inappropriate. In fact, the change that everyone agrees to promote may be a modified version of what was being demanded originally.
- One impediment to changing the health care system is that people lack a sense of what is possible, or of how things might be better. Many people do not realize the extent to which the current system is failing them, or if they are aware, they either attempt to work within the system rather than change it, or reject the system. In recent years, the pharmaceutical companies have begun advertising products in the media, raising the types of expectations that have driven the market.
- Historically and currently, "hot spots" of infectious disease receive high levels of public and governmental attention; in contrast, cancer or other chronic disease "hot spots" receive far less national concern, perhaps because there is no danger of these diseases spreading.
- Since the CDC became involved in chronic diseases over the past decade, its relationship with NCI has been evolving. The Breast and Cervical Cancer Screening Program was clearly programmatic versus research-oriented, and the registries program was developed essentially independent of NCI's surveillance efforts. Currently, new memoranda of agreement are being developed for specific additional projects and issues.

• The Breast and Cervical Cancer Screening Program was funded only to provide mammography services. It does not provide follow-up and treatment for women with suspicious findings; this responsibility has been left to the states, which because of funding restrictions, have had to cobble together largely inadequate means of providing treatment. In many cases, women with abnormal mammograms have been unable to secure treatment. This is a serious ethical and moral issue.

Discussion

- In the current system, dissemination of research results to improve cancer control is needed; however, it is of little use if the state and local health departments and other community organizations do not have the funds to implement and maintain indicated programs and interventions.
- It was questioned whether injecting more funds into the existing system was the optimal course, since in some cases the system itself creates barriers to better care. In addition, the current system is fragmented clear connections exist between poor housing and poor health, and between poor education and poor health. Yet the system has divided these areas of concern, and there is little communication between those administering various agencies charged to deal with problems and programs in each area.
- Research funds must be distributed to a broader range of population groups than has been the case in the past, and the components of the current system should be evaluated critically. In addition, clear responsibility should be assigned for the distribution of credible health information.
- The established structure/process/outcome paradigm may not adequately address concerns that are more global in nature. Continued research is needed to better understand structure, process, and outcome in health care quality, but there also is a need to consider quality simply in terms of how well we are doing our job; the current concerns about medical errors should be a part of this analysis.
- The people now being trained in public health and preventive medicine are for the most part being trained at schools of public health that have turned away from a community- or even a state-level focus, choosing instead to focus at the Federal or international levels. It may be necessary to change the reward system to refocus public health training at the local level. In addition, while a number of states fund medical schools and have a clear vision of what a top quality medical school should be, a similar vision does not exist concerning public health programs. A near-term strategy may be to stimulate change by communicating a vision of what a first-rate program should be.
- It was suggested that the President's Cancer Panel might meet with state governors to discuss use of the tobacco settlement funds and perhaps, issues concerning the distribution of Federal wealth.

• Ideas for changing the system should not come from the top, but rather from the communities in which the problems exist. NCI is investing in Special Population Networks (SPNs) designed to increase capacity in communities to provide research training and infrastructure and develop relevant research questions. It is hoped that these questions will lead to novel solutions that can be implemented either in the current system, or in a modified health and social welfare system.

Dr. Peter Greenwald

Key Points

- The history of public health shows that a substantial portion of health and medical advances over the past century have been public health advances. Only limited progress is possible if only cost and access issues are considered. A public health bill of rights, in addition to a patient's bill of rights, is needed. Proposals for a patient's bill of rights should be examined to determine if, as a model for a public health bill of rights, they contain all of the required elements. Societal issues the right to information, to a good education, to living in a safe neighborhood may go beyond a public health bill of rights, even those these considerations clearly affect access and quality of care.
- As medical technology advances, disparities in care are likely to worsen because
 access to these technologies is likely to be limited and their cost will be higher
 than standard care. We must be aggressive in seeing that as interventions are
 proven through clinical trials, access is equitable.
- Greater community participation in clinical trials should be promoted. Trial participation is a continuing education process for both physician and patient, brings rigor and quality control to the process of providing care for trial patients and non-trial patients alike, and gives new interventions a "leg up" in terms of dissemination and adoption.
- Under the current system, big universities and other organizations familiar with
 the grant- writing process have the best success in competing for grant funds, but
 are not generally the places in which community-level problems are the most
 prevalent. Some steps are being taken to help ensure a more appropriate
 distribution of funding to address problems of the underserved or other
 communities with problems.

Dr. Donald Sharp

Key Points

• After three decades of increase, youth tobacco use prevalence rates appear to have begun decreasing (beginning in 1996). The most improvement has been in white youth; less improvement has been observed among African American and Hispanic youth. Rates have been low among African American females, but rates for African American males doubled between 1992-94.

- Better information is needed to understand youth trends not only in smoking prevalence, but in smoking initiation, brand preference, smoking intensity, cessation attempts, and other tobacco control issues. Clear racial and ethnic group differences also exist in adults, and more information is needed for adult populations as well as youth populations.
- Differences also exist in the health impacts of tobacco use. Lung cancer (**Dr. Sharp: incidence or mortality?**) is approximately 50 percent higher in the African American male population than in the white male population.
- The main goals of CDC's National Tobacco Control Programs are: preventing smoking initiation among youth; promoting quitting among adults; eliminating exposure to environmental tobacco smoke (ETS); and identifying and eliminating disparities among populations. States participating in the program have to show that they will be developing programs to address disparities. The Program has identified nine evidence-based components that states and other entities should include in developing a comprehensive tobacco control program: community programs, chronic disease programs, school-based programs, enforcement programs, statewide programs, countermarketing, cessation programs, surveillance and evaluation, and administration and management.
- Hard-hitting, comprehensive tobacco prevention and control programs are effective in lowering youth smoking rates, as shown by data from California, Massachusetts, and more recently, Florida. However, the tobacco companies are spending five to six billion dollars a year to promote their products and undo, point by point, tobacco countermarketing efforts. Tobacco control funding is minute by comparison. Currently, only a small proportion of state tobacco settlement dollars are being allocated to tobacco control and prevention efforts.
- Funding is needed for more in-depth, national studies of tobacco use. The last such adult survey was conducted in the mid-1980s. CDC is now providing technical assistance to enable all states to complete a youth tobacco survey by the end of 2000. These surveys will support state-level programming by providing a detailed profile on youth tobacco knowledge, attitudes, and practices. Unfortunately, these and other surveys do not have sufficient funding to allow targeting and oversampling of key special populations.
- Cessation, in tandem with prevention, is key to achieving rapid changes in tobacco use rates. Tobacco-related mortality is markedly reduced if cessation occurs rapidly; the ACS goal of a 50 percent reduction in overall cancer mortality is only reachable if tobacco usage drops. Currently, tobacco use prevalence is 25 percent among adults; this must drop to 18 percent by 2005 to achieve the ACS goals. Prevention will affect mortality in 30-40 years, whereas cessation will help far more quickly.
- AHRQ has published clinical guidelines on smoking cessation, which are due to be updated in 2000. System changes (e.g., improved insurance coverage, program accommodation within the system, smoker identification) are needed to help routinize and facilitate medical professionals' involvement in smoking cessation. Patients should be asked about smoking at every medical encounter and if a patient smokes, he/she should be given a brief intervention at that time.

Paperwork and procedures must be streamlined to help identify, track, and assist smokers.

Discussion

Key Points

• The success of tobacco control programs must be more widely promoted. It was noted that a director of an NCI-designated Comprehensive Cancer Center testified before the Panel that all of the state tobacco settlement funds should be used for research since no tobacco control programs have been shown to be effective. Tobacco control proponents should be aware, in this respect, that the tobacco industry may not be their only enemy. Some research is still needed, but in the main, we know what works and now just need the funds to implement programs. Now that funds are becoming available through the settlement, it is necessary to get the word out that effective intervention is possible and worthy of funding.

Dr. Jon Kerner

- Much public health research remains to be done in collaboration with CDC and
 other organizations. NCI's mission in this research involves cancer surveillance,
 epidemiologic, and intervention research, focused specifically on communities
 that bear the greatest cancer burden and thus experience the greatest disparities.
 NCI also has a role in improving education and service, and helping to achieve
 the Healthy People 2010 cancer control objectives.
- We know the most about racial/ethnic, age-related, and gender-related disparities, because these currently are measured at least to some degree. We know less about disparities related to socioeconomic status (SES) differences because our data bases are less well equipped to track these factors and changes in them. When studied, however, these disparities have been found to be quite large.
- Most of the research to date has been focused on individual-related factors (e.g., risk, biological factors, illness-monitoring behaviors); much more work is needed to understand social, institutional, cultural, and environmental factors if we are to truly understand the basis of disparities. It is worth the investment to conduct research into these factors and their interrelationship.
- An inadvertent side effect of creating Cancer Centers has been that cancer researchers and clinicians can complete their entire training without working in communities with the greatest disease burden, even when the cancer center is located in such communities. Previously, people routinely trained in these underserved and high incidence/mortality areas. As a result, younger researchers and clinicians may never be exposed to the cancer and cancer control problems of underserved populations. There is a need to develop mechanisms by which to support training of cancer center investigators in community settings. To develop appropriate research questions and solutions, partnerships must be built between

- communities and individuals who have worked in, established relationships with, and are trusted by the community.
- At the NCI, there is an opportunity for participants in the Cancer Control Fellowship Program to have more community involvement than they do currently. Unfortunately, some fellows who come from underserved communities do not return to them after training because of financial disincentives.
- A Cancer Control Academy is being developed in conjunction with the Special Populations Networks (SPNs) to engage and train participants from the community to become partners in cancer control research. The SPNs also hold the potential to create more community demand for state-of-the-art cancer prevention and control.
- NCI has the opportunity to expand training opportunities for health services and
 cancer control research through collaborations with AHRQ. In addition, NCI is
 building dissemination/diffusion partnerships with foundations. For example, the
 Robert Wood Johnson Foundation has provided substantial support to
 complement NCI's Transdisciplinary Tobacco Research Centers (TTURCs),
 which are designed to quickly translate new tobacco research findings into
 community practice. Such partnerships provide an excellent model that may be
 applied to other areas of cancer control and prevention.
- A program for Translating Research Into Outcomes (TRIO) has been proposed at NCI. It would involve modeling and monitoring the impact of dissemination and diffusion on Year 2010 cancer control objectives. Experience with the Year 2000 objectives showed without question that simply publishing guidelines in professional journals is insufficient to achieve changes in practice. This might have been known from the outset, but it was amply demonstrated in this experience. We now have an opportunity to monitor dissemination and diffusion and work with external experts to track progress toward the 2010 goals. However, this is a job NCI must do in collaboration with CDC, HCFA, AHRQ, and the ACS to promote the adoption of evidence-based cancer control initiatives by local, state, and national service organizations. NCI is not a service organization, but it has a service to provide beyond its research mission. NCI and others need to take responsibility for eliminating health disparities in underserved populations.
- It is necessary to understand that cancer control dynamics may differ from one region or state to another, and tailor interventions accordingly.
- Dr. Kerner has proposed using the District of Columbia as a model community for eliminating health disparities. For more than two decades, the District has led the Nation in cancer mortality; it has huge health disparities and huge social inequities. It offers an enormous opportunity to work collaboratively with the District's department of health. As a Federal territory, DC lacks many of the resources available to states, but offers a unique partnership model.

Key Points

• Cancer control partnerships should be pursued not just with major national service organizations, but with the range of organizations within the advocacy community, which has important capacities to advance cancer control objectives.

Closing Remarks

In his closing remarks, Dr. Freeman highlighted aspects of the day's presentations. He also indicated that:

- We are at a crossroads in this country; our scientists have achieved discoveries that are mind-boggling hardly a week passes without an important advance in molecular biology or genetics. At the same time, we have not paid enough attention to the quality of care for all American people, or to the fact that some people have worse outcomes than others. We lack unifying principles that would be needed to extend the activities of the NCI, even within its purview, to achieve a balanced approach to research from basic through cancer control research.
- Little has been said about the disconnection between the discovery and delivery systems in the U.S., which are financed separately. Perhaps the biggest challenge for the future will be to establish a dialogue to achieve an effective connection between discovery and the delivery of health care.
- The Panel will use the testimony provided at the meeting to inform the planning process for the next several meetings as well as in its report to the President.

I certify that this summary of the President's Cancer Panel meeting, *Improving Cancer Care For All: Applying Research Results, Ensuring Access, Ending Disparities*, held on March 8, 2000, is accurate and complete.

Certified by:

Harold P. Freeman, M.D. Chairperson President's Cancer Panel