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NCI To Advise Women In 40s To Ask Doctor About Mammography, End Routine Screening

NCI's proposed new guidelines for breast cancer screening recommend that women in their forties seek advice about mammography from a health care professional.

The Institute's proposed guidelines, discussed for the first time publicly this week, would eliminate a five-year-old recommendation that all women ages 40-49 receive routine mammography screening.

NCI officials said the proposed change was based on a lack of evidence from screening trials of mammography's benefit for women under

(Continued to page 2)

In Brief

Holland Retires As Center Director, Replaced By NCI's Aaronson; Lab Chiefs Leaving NCI

JAMES HOLLAND has retired as director of the Jerold H. Ruttenberg Cancer Center, Mount Sinai Medical Center, and as the Jane B. and Jack R. Aron Professor, Mount Sinai School of Medicine. He was appointed Distinguished Professor of Neoplastic Diseases earlier this month. Holland said he will continue to conduct research and clinical activities. **STUART AARONSON**, chief of the NCI Laboratory of Cellular and Molecular Biology, Div. of Cancer Etiology, retired from the Public Health Service to succeed Holland as the Ruttenberg Center director and Aron Professor. At NCI, **Steve Tronick** was appointed acting laboratory chief. . . . **NCI STAFF LOSSES:** Also in DCE, **Peter Howley**, chief of the Laboratory of Tumor Virus Biology, resigned to become professor and chairman, Dept. of Pathology, Harvard Medical School. **Carl Baker** was appointed acting laboratory chief. And, **Takis Papas**, chief of the Laboratory of Molecular Oncology, retired to become director of the Center for Molecular and Structural Biology at Hollings Oncology Center, Medical Univ. of South Carolina. **James Lautenberger** has been appointed acting laboratory chief. In the Div. of Cancer Treatment, **Stephen Brown**, director of the Radiation Research Program, resigned to become corporate medical director, Oncology Services Corp., State College, PA. **Michael Stellar** was appointed to head the Surgery Branch's Gynecologic Oncology Section. . . . **CLINICAL TRIALS** conference is planned by the American Cancer Society for Nov. 3-5 in Atlanta, GA. Objective is to review advances in science and practice of clinical trials for cancer, and increase understanding of clinical trial research. Contact ACS, Tel. 404/329-7604. . . . **VOLUME NUMBER** printed on the front page of the past two issues of **The Cancer Letter** was incorrect. The issues were Vol. 19 No. 35 and 36, Sept. 10 and 17, 1993. Our appologies to librarians.

NCI: Facts Don't Support Screening Mammography For 40-49 Year Olds

(Continued from page 1)

age 50. That view is controversial among proponents of mammography (see Letter to the Editor, page 4).

"Physicians and members of the public are not robots and you can't treat them as such," NCI Director Samuel Broder said at a meeting of the National Cancer Advisory Board Subcommittee on Women's Health and Cancer. The decision to undergo mammography "can only be worked out between an individual doctor and patient," he said.

A physician's advice may be different from a public health officials', Broder maintained.

"What I would do as an individual is recommend annual mammograms," he said to the subcommittee. "But I can't recommend it to the public because I don't have the facts."

"Dramatic" Change Questioned

Some NCAB members said they saw no need to change the current breast cancer screening guidelines developed jointly by NCI, the American Cancer Society and other organizations in 1987-88 (**The Cancer Letter**, Sept. 17).

"I agree that the data are controversial," NCAB member David Bragg, chairman of the Dept. of Radiology, Univ. of Utah School of Medicine. "But is now the time to take a dramatic change in course and say mammography is dangerous in women under age 50?"

NCAB member Walter Lawrence, past president of the American Cancer Society, had planned to propose a resolution asking NCI to delay implementation of the proposed guidelines. The NCAB had not taken up the resolution by **The Cancer Letter**'s press time this week.

"Driven By Science"

NCI's re-evaluation of the 1988 guidelines "was driven by the science," Peter Greenwald, director of NCI's Div. of Cancer Prevention and Control, said to the NCAB subcommittee. "There was no consideration that it had to do with the [Administration's] health care plan."

Russ Harris, Univ. of North Carolina Lineberger Comprehensive Cancer Center, and Barbara Rimer, director of cancer prevention, detection and control at Duke Univ. Comprehensive Cancer Center, spoke to the subcommittee about the NCI workshop on breast cancer screening held last February.

Data from seven randomized screen trials were evaluated at the workshop, Harris said. "The bottom line seemed very clear: First, there was no benefit for screening women ages 40-49 after seven years," he said. "At 10 to 12 years of follow-up, there was an uncertain but no better than marginal benefit."

To make a screening guideline, Harris said, officials must balance the benefits with risks and costs.

Risks of mammography screening, Harris said, include: false positives resulting in unnecessary biopsies and fluid aspirations; anxiety created by false positive results; detection of carcinoma in situ unnecessarily early; and if screening detects "truly positive breast cancer, it is not clear whether finding it early would make a difference at all" in outcome; and false reassurance.

Costs of mammography screening are estimated at $1 billion to $1.5 billion a year, Harris said. Another issue is credibility, he said. "We need to tell women the truth."

Rimer told the subcommittee that if she had a bias prior to the NCI workshop, it was in favor of screening women ages 40-49.

"We all want it, for ourselves and for our relatives and patients," Rimer said. "What other procedure would we have continued to recommend if it showed a lack of benefit?"

The workshop convinced her that "the consistent lack of benefit for women 40-49 is inescapable," she said.

"Many people said do nothing until something

THE CANCER LETTER

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better comes along," Rimer said. "But NCI owes it to the public. We know too much to accept the status quo. Screening programs can be justified only if they decrease mortality."

Rimer said she was concerned that NCI's guidelines not create a inequitable system in which middle-class women get mammography while disadvantaged women do not. Also, the Institute, she said, "should carefully prepare doctors and women for the more complicated communication" the new guidelines will require.

Unwanted Effects Feared

Some NCAB members said they feared that NCI's proposed guidelines will be misunderstood by consumers.

"The only course that will be heard by the public is: Mammography is wrong," Bragg said. "That will take years to overcome."

NCAB member Robert Day, director of the Fred Hutchinson Cancer Research Center, said mammography among all age groups in Seattle dropped noticeably following the release last spring of data from the National Breast Screening Study of Canada, which was not supportive of mammography screening for women in their forties.

"I am concerned that those women who need mammography will not get reimbursed," Day said.

"We don't want to be HCFA [Health Care Financing Agency]," Broder said. "Our job is only to convey scientific knowledge. The best course is to acknowledge where we are. We can't protect the public from the fact that science may change things."

If a woman has a mass in her breast, the

NCI's Proposed Breast Cancer Screening Guidelines

Women ages 50 and above: There is a general consensus among experts that screening with mammography and clinical breast examination will save lives for women ages 50-69, reducing breast cancer mortality by up to 30 percent. Screening intervals from 12 to 33 months have been shown to be effective. Therefore, NCI recommends screening with mammography every one to two years for asymptomatic women ages 50 and above. (Mammography should be coupled with clinical breast exam.) Studies have not identified an upper age limit for screening, however medical judgment suggests that women ages 70 and older be screened unless otherwise indicated by health status.

As discussed below, NCI recommends annual clinical breast examination and monthly breast self-examination as prudent practices for women 50 and over. These examinations are complements to screening with mammography, not substitutes.

Women ages 40 to 49: Experts have not reached agreement on the value of breast cancer screening with mammography or clinical breast examination for asymptomatic women in this age group. NCI recommends that women 40-49 discuss with a health professional the advisability of screening with mammography, taking into account family history of breast cancer and other risk factors.

As discussed below, NCI recommends annual clinical breast examination and monthly breast self-examination as prudent practices for women in this age group.

Clinical breast examination and breast self-examination: Although the value of clinical breast examination and breast self-examination have not been established through clinical trials, NCI believes that annual clinical breast examination for women age 40 and over and monthly breast self-examination for all women are prudent practices toward early detection of breast cancer. Women should consult with a health professional on proper breast self-examination techniques.

Brief Version

Ages 50 and older: NCI recommends women be screened every one to two years with mammography and receive an annual clinical breast examination (a breast physical examination by a health professional). Women ages 70 and above should be screened unless otherwise indicated by health status.

Ages 40-49: NCI recommends women discuss with a health professional the advisability of breast cancer screening with mammography, taking into account family history of breast cancer and other risk factors. NCI also recommends annual clinical breast examination as a prudent practice for this age group.

Breast self-examination: NCI recommends as prudent practice monthly breast self-examination for all women, along with consultation with a health professional on proper breast self-examination techniques.

woman is no longer asymptomatic and the mass would require evaluation, Broder said.

"There is no example of a therapeutic regimen that we would recommend without clinical trial data (showing a benefit)," he continued. "Whatever advice you give us should be informed by that basic philosophy."

The NCI Executive Committee reviewed the proposed guidelines last August, according to Greenwald. Following that review, Greenwald met with ACS representatives twice, as well as Assistant Secretary for Health Philip Lee. The draft guidelines also have been reviewed by selected NCI workshop participants.

NCI's plans to hold workshops in October with other agencies in HHS, practitioners, and members of the public to review materials being developed to explain the new guidelines, Greenwald said.

From October to December, NCI will circulate the proposed guidelines to public and private agencies for review. NCI then would review and reformulate the guidelines if necessary, Greenwald said.

The final guidelines would be released in January. NCI plans to send physicians packets of information, including the NCI workshop report, a summary geared toward health professionals, and sample materials developed for the public.

Letter to the Editor

Evidence Supports Screening Younger Women, Expert Says

To the Editor:

The recent article in **The Cancer Letter** (Sept. 17) provides women and physicians with a detailed, but nevertheless, incomplete summary of the data relative to screening women ages 40-49 and of the effort by some at the National Cancer Institute to withdraw support for screening.

The Cancer Letter might recall that NCI officials repeatedly denied that they were in the process of changing the guidelines several months ago when it was clear that that was exactly what NCI was planning to do. The NCI workshop on screening was a mere formality to permit the development of a "consensus." its lack of objectivity is obvious in the selection of participants, and in the fact that the chairperson, Dr. Suzanne Fletcher, and principal author of the workshop report, had already written and published an editorial opposed to screening younger women.

The conclusions of the workshop were preordained. The few of us who were invited to present data in support of screening found that our concerns over the use and interpretation of the data were ignored or unanswered. By involving the media at that workshop, NCI has been successful in promoting its analysis such that many physicians and organizations are now discouraging women ages 40-49 from screening.

Dr. Fletcher's revised summary will be published in the "Journal of the National Cancer Institute" in its entirety of more than 30 pages. Dr. Edward Sickles, professor of radiology at the Univ. of California at San Francisco, and I, participants in the workshop, have been permitted 2,500 words of rebuttal to enumerate the multitude of omissions and biases in the "Fletcher" report.

The inference by NCI officials as reported by **The Cancer Letter** is that PDQ is somehow independent of the Institute when it is NCI that determines what advice is included in PDQ. It is not surprising that PDQ is mirroring what NCI wishes. It is disingenuous to suggest that PDQ is not trying to establish guidelines when it is stated: "There is insufficient evidence to make an informed decision regarding screening women ages 40-49 years old."

It is not that there is "insufficient evidence," but merely that NCI has chosen to ignore data that support screening women ages 40-49. There is, in fact, good evidence that screening can benefit women ages 40-49 just as for women 50 and over. It is merely the fact that NCI has decided to not accept any data other than those from randomized, controlled trials. If proof from randomized, controlled trials is required to support guidelines, then recommendations for Pap tests to screen for cervical cancer must be eliminated since these have never been shown to reduce mortality in randomized, controlled trials.

Numerous Problems With Trials

There have been eight randomized, controlled trials involving mammography screening. NCI has chosen to ignore the methodology of the trials, their various designs and performance, and has based its analysis purely on results. In fact, the methodological problems with the trials are numerous, including too few women, failure to account for contamination and non-compliance, poor quality or inadequate mammography, screening intervals that are too long, thresholds for intervention that are too high, and faulty randomization.

Nevertheless, despite the fact that none of the randomized, controlled trials have been properly de-

signed or performed to evaluate women ages 40-49, five out of the eight trials show a benefit that ranges from a mortality reduction of 14 percent to 49 percent with success dependent on the operating parameters of the trials. Of the three trials that have not shown a benefit, one is the National Breast Screening Study of Canada in which, among numerous other problems, there were (statistically significantly) more women with incurable breast cancer allocated to the screened group than the control group; the Ostergotland trial in which a high percentage of deaths occurred among women who refused to be screened (they are still counted as having been screened); and the Stockholm trial in which single view mammography was performed at too long a time between screens.

NCI discounts the benefit seen in the majority of the trials as not being statistically significant, but fails to inform women and physicians that it is mathematically impossible for these results to be statistically significant since the trials did not include sufficient numbers of women ages 40-49 to permit statistical significance. A point that is avoided in the "Fletcher" report is that at most, only one third of the women in the trials were under the age of 50. In view of the breast cancer incidence and death rates for younger women, this is one sixth the number of women needed in the under 50 group to "prove" the same benefit as that in women 50 and over.

NCI has also discounted any benefit that does not appear soon after screening begins. NCI should explain why an immediate benefit should be expected from screening given the long natural history of breast cancer, and lead times of from two to four years for mammographic detection. The time at which a benefit appears is a reflection of how quickly the control group's cancers successfully metastasize (the screened group's cancers must be found before this occurs), and how quickly those metastases grow sufficiently to kill the control women. This process likely takes years. In fact, instead of dismissing the "delayed benefit" for younger women (who are known to live longer with breast cancer), NCI should be investigating the possibly important factors that permit the apparent early reduction in mortality for older women.

There appears to be a general reluctance on the part of epidemiologists to admit that the trials cannot, legitimately, be used to resolve the question, since none was designed with the appropriate statistical power or proper study design. It would be very difficult to admit, having spent millions of dollars on a trial, that is was not done properly, but this is certainly the case in the National Breast Screening Study of Canada, whose early results have precipitated this debate. By their own calculations that the trial was not large enough to "prove" anything less than an overly optimistic 40 percent benefit, and, due to major errors in the conduct of the trial, it cannot be expected to even "prove" that large a benefit.

Lack of Science Disturbing

The lack of science, logic, and consistency in the NCI's analysis is disturbing. Although they feel the data do not justify mammographic screening, NCI's recommendations for new guidelines suggest that high risk women should still be screened. Where are the data "proving" that screening high risk women has any benefit? NCI also neglects to point out that this approach will ignore the vast majority of women (60-75 percent) who develop breast cancer despite not being at high risk.

The lack of consistency and science behind their proposed new guidelines is further evidenced by NCI's recommendation that women continue to have a clinical breast examination. If there are insufficient data to support the use of mammography screening for these women, there are certainly no data to support the use of clinical breast examination, or for that matter, breast self-examination.

Proponents of screening have no illusions that mammography is the solution to the breast cancer problem. Clearly, increased research is needed to try to find a way to prevent breast cancer or devise a universal cure. What women, physicians, and reporters fail to realize is that women ages 40-49 are on the verge of losing, for apparently political reasons, the one method presently available that can reduce deaths from breast cancer. If the NCI's erroneous assessment of the available data is accepted, then there is no near term hope for these women.

Unfortunately, good medical advice is being overshadowed by the desire to reduce the cost of health care. The economic questions are important, but women should be permitted to discuss the allocation of resources. The economic discussion should not be avoided by incorrectly pronouncing that screening doesn't work. If the new NCI guidelines are adopted, then only women who can afford to pay will be able to avail themselves of screening as was suggested by David Eddy in 1988 ("The Value of Mammography Screening in Women Under 50 Years," JAMA. 1988:

259 No. 10: 1512-1519).

All these questions and more were raised at the NCI workshop. There is a clear effort by NCI to avoid a discussion of the problems with their analysis. The effects of the various trial designs and the performance of the trials as they influenced the results were repeatedly discounted. I posed these questions again in two letters to Dr. Samuel Broder, NCI Director. He initially replied that he would have his analysts respond. My initial letter was sent in March, and his promise came in May. I am still awaiting the response five months later. The only reply I have received is from those at NCI who told me the Institute has done nothing more than to try to discredit me.

The only conclusion that can be drawn as to why NCI has not addressed these concerns is that those who have been promoting a change in the guidelines know that their analysis is not scientific and that they cannot satisfactorily defend their use of the data.

There is nothing mystical that happens to the breast at age 50 (including the mythical change of the tissues to fat). The randomized, controlled trials, with all their inadequacies, still indicate a benefit. Data from the Breast Cancer Detection Demonstration Project show that there is no significant difference between survival rates for women under age 50 and those ages 50-59 when tumors of similar size, grade, and stage are compared. The Swedish, Kopparberg trial confirmed that there is little difference in survival for younger women compared to older women when their cancers are collated by size, stage, and histologic grade. Older women have shown a statistically significant mortality reduction (because there have been twice as many older women in the trials) as a result of down-staging from screening, and the same is true for younger women when they are screened appropriately. Modern mammography screening trials show that breast cancer can be detected at similarly small sizes and early staged regardless of age.

It is remarkable that NCI, which champions the importance of properly designed and executed trials, would ignore the weaknesses in the basic statistical and technical underpinnings of the trials and use the data in such an erroneous fashion. It is unconscionable that a federal agency not respond clearly and forthrightly to legitimate questions when the interpretation of the data will have a significant impact on the lives of so many women.

If NCI officials wish to advise women and physicians based solely on the results of randomized, controlled trials, then they should be able to clearly state which trials have sufficient numbers of women ages 40-49 to be able to show, with statistical significance, an expected mortality reduction of 25-30 percent to provide the "proof" they require. The answer is that there are none.

Women and physicians should ask how NCI can withdraw support for screening based on the lack of statistically significant benefit when it is mathematically impossible for the trials to provide such "proof." If NCI requires absolute proof from trial data, then it should propose a trial that could provide the required statistical proof.

In the meantime, the inferential data are clear and women ages 40-49 should not be denied access to screening simply because analysts are unwilling to admit that the trials that have been performed have not been designed or performed properly.

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NCI Budget By Mechanism As Planned Under FY 1994 House Markup

	1993 Estimate	Annualized Pres Bud *	1994 House Mark	1994 House vs 1993 Est. Amount	Percent
Research Project Grants					
Noncompeting	$687,766	$689,505	$704,005	$16,239	2%
Admin. Supps	6,515	6,776	6,776	261	4%
Competing	221,241	210,853	221,253	12	0%
Subtotal	915,522	907,134	932,034	16,512	2%
Cancer Centers					
Core	124,228	129,087	126,587	2,359	2%
SPOREs	21,571	21,891	22,741	1,170	5%
Subtotal	145,799	150,978	149,328	3,529	2%
Other Research					
Rsrch Career Prog	14,291	14,386	14,386	95	1%
Cancer Ed. Grants	7,554	8,354	7,904	350	5%
Coop Clinical Rsch	74,592	77,558	77,558	2,966	4%
Other Rsch Related	15,258	16,159	16,159	901	6%
Subtotal	111,695	116,457	116,007	4,312	4%
Total, Research Grants	1,173,016	1,174,569	1,197,369	24,353	2%
Training-NRSA	$37,285	$37,491	$37,491	$206	1%
R&D Contracts	195,213	210,853	202,653	7,440	4%
Intramural Research	364,029	388,739	382,819	18,790	5%
Research Mgt & Supp	96,177	96,177	96,177	0	0%
Cancer Prev & Control	105,019	113,496	145,759	40,740	39%
Construction	7,602	19,999	19,999	12,397	163%
Total, NCI	1,978,341	2,041,324	2,082,267	103,926	5%

* The President's Budget adjusted to remove the future year cost of the Breast Cancer increase to provide comparability to the House Mark which excludes the future year Breast Cancer funds.

Source: NCI Budget Office

Senate Emphasizes Balance In NCI Research Programs

The Senate Appropriations Committee has approved the HHS appropriations bill that gives NCI $2.082 billion, the same amount as the House bill approved last summer.

The proposed appropriation is $40.9 million above the President's budget proposal and $103.9 million above the Institute's FY 1993 budget.

Echoing the language of the House bill, the Senate bill called for a "balanced cancer research program." Neither bill contains earmarks.

The full Senate is expected to vote on the measure within a week, Capitol Hill sources said.

The bill's language, sympathetic to NCI, encouraged the Institute to pursue research in gynecological and prostate cancers and gave a boost to psychosocial interventions and research in cancer survivorship.

The bill's discussion of the cancer centers program singled out the Univ. of Iowa for becoming a fully designated cancer center. The Labor, HHS and Education Appropriations Subcommittee is chaired by Sen. Tom Harkin, an Iowa Democrat.

The language of the appropriations bill follows:

The Committee recognizes the value of, and the need for, a balanced cancer research program, encompassing basic and applied sciences, a strong network of cancer centers, prevention and control programs, information dissemination, and survivorship research which is becoming increasingly important as survival rates increase.

Basic research is critically important as it is the foundation for the translational activities supported by the clinical programs in cancer centers and community clinical oncology programs, as well as the development of prevention, early detection, and diagnostic tools.

The Committee is pleased with NCI's strong support for cancer vaccine development and directs that this continue. The Committee believes that cancer vaccines are critical to our long-term efforts in controlling and preventing many cancers.

Breast cancer--The Committee encourages the NCI to expand all facets of breast cancer research, including basic studies, epidemiology, prevention, detection, treatment, and rehabilitation efforts. NCI has proposed a trans-NIH collaborative effort with other NIH Institutes to address the broad spectrum of breast cancer research.

NCI's specialized programs of research excellence [SPORE's] support studies in tumor etiology, biology, diagnosis, therapy, quality of life, education, and prevention of breast cancer. Epidemiology studies assess the cancer risk associated with environmental and occupational exposures, including factors that may contribute to regional differences in breast cancer rates. NCI is working to develop new imaging technologies for breast cancer screening, pursuing promising new treatments in clinical trials, and is working on new prevention regimens, including a possible breast cancer vaccine.

Native Americans--The Committee is greatly concerned that cancer is the leading cause of death for Alaska Native women, the second leading cause of death for American Indian women, and the third leading cause of death in American Indian and Alaska Native men. Accordingly, the Committee encourages the inclusion of American Indians, Alaska natives, and native Hawaiians in the activities underway within the NCI leadership initiatives on cancer in order to establish culturally and linguistically credible and efficacious national community outreach cancer prevention and control programs.

The Committee also encourages the creation of programs aimed at reducing cancer incidence and mortality in native population subgroups. The Committee further urges NCI to continue and expand its efforts to address the incidence of cancer among American Samoans.

Nursing--The Committee strongly urges the NCI to continue to collaborate with the National Institute of Nursing Research on symptom management and prevention of breast cancer and prostate cancer.

Cancer centers--The NCI-designated cancer centers are a tremendous national resource and a vital component of the Nation's effort to find new diagnoses, treatments, and cures for cancer.

The Committee encourages NCI to use all available mechanisms to fully fund cancer centers core grants at peer-reviewed levels. The Committee also continues to support expanding the cancer centers network to geographically underrepresented areas of the country and other underserved populations.

The Committee looks forward to the current cancer center planning grants recipients, including the Univ. of Iowa, becoming fully designated cancer centers. The Committee believes NCI-supported cancer centers should establish the standard of treatment for cancer.

Noting the increasing evidence that providing psychotherapeutic support services for cancer patients and their families is a low-cost, highly effective addition to other medical treatment, the Committee believes NCI should require cancer centers to provide supportive psychotherapeutic services to cancer patients at all stages of diagnosis and treatment, and to their families. Such services should include, but not be limited to, individual counseling and education, group therapy for patients, and individual and group support for families. Centers should also include in routine care for patients screening and treatment for concurrent psychiatric disorders such as depression and anxiety.

Leukemia centers--The Committee has provided funding to create new initiatives in leukemia, lymphoma, and related research. Funds provided will begin the development of a nationwide centers program which will be competitively peer reviewed. The Committee encourages nonprofit organizations to participate in the development, planning, and funding for these programs in an effort to more effectively serve the 89,000 children and adults in the U.S. who are stricken with leukemia and related diseases.

Cancer prevention and control--There is increasing evidence that psychological and social factors influence cancer incidence, morbidity, and mortality. The Committee commends NCI for starting to develop research programs in psychosocial intervention and strongly urges NCI to continue and expand this research throughout the Institute.

In particular, the Committee directs the Div. of Cancer Prevention and Control to increase funding for clinical intervention trials that reflect the concerns of cancer patients, survivors, and their families in coping with cancer, such as outpatient pain management; professionally led support and self-help groups; increasing treatment adherence; managing side effects such as nausea; and identifying and reducing other barriers to treatment such as financial, cultural, and geographic obstacles. The Committee commends DCPC for its cooperative research program with the National Institute of Mental Health on the psychosocial and social factors such as stress and support on physiological variables such as endocrine and immune function, and disease progression.

The Committee is concerned about the many adolescents, particularly minority and low-income teenagers, who are at high risk of cancer due to their use of tobacco, alcohol, and drugs and their involvement in high-risk sexual activity.

The Committee urges the Institute to support research on clinical interventions intended to reach this population. The Committee also encourages the Institute to expand the study of new screening and intervention strategies for familial cancers, such as neurofibromatosis.

DES--The Committee continues to strongly support increased efforts to support the study of and public education regarding exposure to the synthetic hormone diethylstilbestrol. NCI and other Institutes, along with the Office of Women's Health have developed a plan for expanded activities in these areas. The Committee has included sufficient, funds for NCI to significantly expand on its fiscal year 1993 levels of support for both its research and education efforts in this area. These funds should be directed at implementing the provisions of the DES Education and Research Amendments of 1992 and the recommendations of the action plan developed last year.

Prostate cancer--The Committee is encouraged by the steps taken by NCI to expand prostate cancer research in recent years. However, the growing incidence of prostate cancer, estimated to be 165,000 new cases and 35,000 deaths in 1993, and its disproportionate impact on minorities require even more aggressive actions. The Committee has provided funding increases to permit the Institute to make prostate cancer research one of its top priorities and expects NCI to use the full range of research programs to achieve improved early detection methods, develop new treatments, and ultimately find ways to prevent this most common cancer among men.

Consistent with the new resources provided, the Committee expects NCI to expand all facets of prostate cancer research, focus on including investigator initiated research projects, SPORE's, intramural studies, and clinical trials. The Committee also encourages NCI to establish stronger links between its clinical prostate cancer research and NIDDK's basic prostatic science program.

Proton beam--Proton beam research has been supported by NCI because of its potential in the treatment of inoperable cancers and certain vascular diseases. The Committee believes that this research should be continued based on the results to date. The bill includes sufficient resources to finance the next stage of this research initiative.

Coordination--The Committee urges NCI to work with CDC and other PHS agencies to develop a program of coordination to insure the best utilization of Federal resources for cancer research and control activities.