Accelerating Successes Against Cancer: Recommendations from the NCI – Designated Cancer Center Directors

August 2006

Presentation to the
National Cancer Advisory Board
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Why this report?

- Confusion over goals and expectations with regard to the 2015 target.
- Blueprint for achieving what is possible.
- Frustration over reduction in NCI funding at a time of great opportunity for increased successes.
- Recognition by NCI-Designated Cancer Center directors of the advantages of increased collaboration and joint activities.

OUTLINE OF REPORT

Statement of Purpose	J. Mendelsohn, MD
Executive Summary	J. Mendelsohn, MD
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Early Detection	S. Gerson, MD
Treatment	M.Abeloff, MD
Survivorship	W. Dalton, MD, PhD
Collaborations	L. Hartwell, PhD
Dissemination	R. Herberman, MD

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STATEMENT OF PURPOSE (1)

Keypoints:

- NCI-designated Cancer Centers have implemented programs that lead the way in each of the three initiatives of the NIH Roadmap.
- Cancer Centers, unlike the NCI, have dual missions: research and dissemination of improved care to patients.
- We can substantially reduce deaths from cancer just by broadening the application of knowledge we have today. Cancer Centers can lead the way.
- The promise of “personalized” medicine is achievable.

STATEMENT OF PURPOSE (2)

Goals of Cancer Center Directors' Working Group:

1. Reduce the burden of cancer through research in the areas of prevention, detection, treatment, and survivorship, and create a strategy for success.
2. Identify ways in which NCI-designated Cancer Centers can enhance collaboration with each other and with other stakeholders in the pursuit of our shared mission.
3. Suggest initiatives that will enable the Cancer Centers to extend their research beyond their local communities and to provide leadership in the wide dissemination of best practices in cancer and prevention.
4. Create a realistic vision of the potential for future successes and identify the roadblocks that must be dealt with.

STATEMENT OF PURPOSE (3)

Progress:

- ACS has performed a midpoint analysis of goal of 50% reduction in deaths 1990-2015: projected success is 23%. *
- Projected decrease in breast, male lung and colon cancers is tracking at 50%!
- Prevention and early detection more important than treatment in these successes.
- More can be achieved by increased participation.

* Byers et al, Cancer 107(2):396-405, 2006.

STATEMENT OF PURPOSE (4)

Collaboration and synchronization:

- With other Cancer Centers
- With care providers in the state
- With professional organizations
- With governmental agencies and the U.S. Congress
- With pharmaceutical and biotech companies
- With patient advocacy groups

STATEMENT OF PURPOSE (5)

This exercise has succeeded in energizing the directors of NCI-designated Cancer Centers to collaborate in research and dissemination of best practices, and to advocate aggressively for increased public awareness and governmental funding.

PREVENTION (1)

- Need for uniform dissemination
  - 41 million uninsured Americans
  - Uneven access
- Need for an educated and motivated public.
- Because cancer is a disease that starts as a premalignant clone of cells and progresses, early interventions should be effective.
- Endorsement of the recommendations of the National Cancer Policy Board.

PREVENTION (2)

Immediate strategies:

- Importance of acting on risk factors that reflect life style:
  - Tobacco use
  - Obesity
  - Physical inactivity
  - Diet

PREVENTION (3)

Immediate Strategies:

- Importance of intervention by health care providers
  - Colon endoscopy, mammography, PSA, Pap smear
  - Vaccination (HPV)
  - Chemoprevention (breast cancer)
  - Smoking abatement: counseling and nicotine replacement

PREVENTION (4)

Long Term Strategies:

- Clinical trials to discover molecular targets for early detection of high-risk and precancerous lesions and identification of targets for chemopreventive therapy.
- Chemoprevention clinical trials: risk based interventions.
- Clinical research in behavioral sciences.
- Need for databases and powerful informatics to establish risk profiles for individuals and for high-risk populations.

PREVENTION (5)

Other considerations:

- Clinical studies are long in duration and very expensive. Any side effects are objectionable. These issues deter faculty, pharma, and governmental sources of funding.
- Epidemic of childhood obesity – a cross-NIH issue.
- Disparities in provision of and payment for healthcare.
- Scientific knowledge does not guarantee clinical implementation!

EARLY DETECTION (1)

- Early cancer is far more curable.
- Research results will come faster if focus is on high risk populations: cancer survivors, genetic predisposition, environmental exposure, family history.

EARLY DETECTION (2)

Technology:

- Genomics, proteomics, immunohistochemistry
- X-ray and MRI imaging
- Molecular imaging
- Informatics and computational biology

EARLY DETECTION (3)

Immediate Strategies for Cancer Centers:

- Partner with governmental agencies and health care providers to expand clinical use of validated screening methods.
- Partner with advocacy groups to pursue payment from CMS, insurance and health plans (and dealing with the uninsured).
- Partner with state public health departments and health care providers to disseminate information on health benefits and points of access.
- Partner with other Cancer Centers to share tissue resources and advanced technology platforms.

EARLY DETECTION (4)

Long-term Strategies for Cancer Centers:

- Collaborate in large-scale clinical trials to discover and validate biomarkers.
- Expand application of new technologies: genomics, proteomics, immunohistochemistry, molecular imaging.
- Continue fundamental, basic research on genetic and molecular abnormalities in cancer.
- Through NCI and governmental agencies, create a standardized electronic database of medical and scientific information and patient medical records.