

P R E S I D E N T ' S C A N C E R P A N E L

NATIONAL CANCER PROGRAM

NATIONAL CANCER INSTITUTE

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

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The Future of Cancer Research: Accelerating Scientific Innovation December 14, 2010

The President's Cancer Panel held the third meeting of its 2010-2011 series, *The Future of Cancer Research: Accelerating Scientific Innovation*, on December 14, 2010, in Bethesda, Maryland. The meeting included expert testimony and discussion regarding opportunities to facilitate progress within the National Cancer Program (NCP), including those made possible by the Internet and other technological advances.

The Panel heard about the dramatic rise in access to and use of the Internet among Americans over the past several years. The upsurge in households using broadband Internet and mobile devices, even among minority and underserved populations that have traditionally had less access to emerging technologies, has created unprecedented access to health information. Although new technology has potential to aid in health communication and education, there is a risk that users may rely on misleading and/or incorrect information. In addition, targeted efforts will likely continue to be necessary to effectively reach minority and medically underserved populations.

Multiple organizations, such as the Love/Avon Army of Women, have capitalized on the Internet to reach out to both healthy individuals and those diagnosed with disease to engage them in clinical research. This model of participatory research has the potential to transform the way clinical research is planned and conducted. Adaptive approaches in which clinical trial designs are modified based on interim data collection may also help increase the efficiency and success rates of clinical trials.

Speakers discussed the potential of technological advances to address public health challenges and the need to invest in cancer research. However, it was noted that knowledge and technology are not sufficient to improve health outcomes. The accumulation and application of knowledge take place within a societal context that is tied to certain institutional arrangements, values, and norms. These values and norms influence policies and decision making. For example, the quest to secure vast resources to minimally extend a patient's life illustrates the enormous value society places on the ability to "rescue" patients. This importance overwhelms economic discussions about treatment cost effectiveness, particularly regarding emerging cancer treatments. To make sound health policy and treatment decisions, the difficult conversation about medical resource allocation must take place. In addition, physicians should be encouraged to not only present patients with factual options but to support patient decision making—including decisions to forgo medical treatment—in part by providing insight based on professional experience.

Several speakers discussed outcomes that may be used to measure innovation. These include changes in public health or patient experiences, increased knowledge, development of tools, number of students trained, and creation of new jobs. Importantly, the NCP should evaluate the productivity of its investments, particularly large, resource-intensive initiatives. Evidence was presented suggesting that multi-institutional collaborations created to promote multidisciplinary team science are associated with significant challenges and may not be optimal to support productivity.

The need for increased coordination within the NCP was emphasized. Current fragmentation results in duplication of effort and inefficiency. In this regard, efforts must be made to address privacy issues and other challenges associated with data sharing so that clinical information collected in institutions across the country can be used to help address important research questions.

The Panel will summarize findings and recommendations from this meeting, along with the other meetings in the series, in its 2010-2011 Annual Report to the President of the United States.