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

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

HPV Vaccination as a Model for Cancer Prevention
July 24, 2012

The President's Cancer Panel commenced its 2012–2013 series, *Accelerating Progress in Cancer Prevention: The HPV Example*, on July 24, 2012, in San Francisco, California. During the first workshop in this series, *HPV Vaccination as a Model for Cancer Prevention*, invited participants from the academic research community, pharmaceutical companies, and government agencies provided expert testimony on the state of the science of the human papillomavirus (HPV) vaccine and discussed challenges and opportunities related to vaccine uptake and research. Participants uniformly agreed that promoting access to and adoption of existing HPV vaccines in the United States and around the world should be the highest priority. Additional discussion focused on the roles of research, surveillance, communication, and monitoring in expanding use of HPV vaccines, developing improved vaccines, and integrating vaccination and screening efforts.

Participants presented data on the burden of HPV-associated cancers in the United States and globally. HPV causes virtually all cervical cancer cases and a substantial portion of vulvar, vaginal, anal, penile, oral cavity, and oropharyngeal cancers. Currently, cervical cancer comprises the largest number of HPV-associated cancers; oropharyngeal cancers likely will account for the largest proportion of HPV-associated cancers in the United States within the next 15 years. This is due, in part, to successful prevention of cervical cancer in the United States through screening programs that reach a large proportion of the eligible female population. There is a substantial knowledge base regarding cervical cancer development and clear evidence that licensed vaccines are safe and effective in preventing these cancers. However, participants emphasized the need to address gaps in knowledge about the natural history of other HPV-associated cancers, particularly oropharyngeal cancers, and confirm the efficacy of vaccines in preventing these cancers or the infections that lead to them. It would also be useful to conduct additional research on HPV infection and vaccination in males, who are more likely to develop HPV-associated oropharyngeal cancers and, to date, have undergone HPV vaccination at far lower rates than females.

Participants discussed research with potential to improve HPV vaccination efficacy and administration. They expressed strong support for monitoring ongoing research and vaccine implementation in the United States and abroad to determine whether fewer doses or different dosing schedules of currently available vaccines afford the same protection against HPV infection. Second-generation vaccines also are under development: pharmaceutical companies are testing a vaccine that targets nine HPV strains and considering ways to ease vaccine administration and improve dissemination through formulations that could be delivered orally and/or without continuous refrigeration.

Workshop participants emphasized that optimizing the benefit of current and future HPV vaccines will require active monitoring and surveillance. Established vaccine safety monitoring efforts within the United States will continue to provide information on the safety of HPV vaccines, which, if communicated to health care professionals and the public, may help to increase uptake. Surveillance data are needed to measure the clinical impact of HPV vaccination and inform adaptation of cancer control efforts for HPV-associated cancers. Although individuals who undergo vaccination likely will benefit from needing less frequent screening, compiling the evidence necessary to change screening guidelines will be difficult and have a long time horizon. Investment in vaccination and screening registries would facilitate collection of data to support rational integration of vaccination and screening practices, which could provide optimal benefit to patients and enable judicious use of resources.

The Panel will summarize findings and recommendations from this meeting, along with the other meetings in the series, in its 2012–2013 Annual Report to the President of the United States.

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