

Preparing for Bioterrorism

Biodefense Budget Debate

Senators, led by Bill Frist (R-Tenn) and Edward Kennedy (D-Mass), introduced a bill on November 15 that calls for \$3.2 billion to be spent on the nation's defense against bioterrorism. In October, Bush had proposed a budget of \$1.5 billion for bioterrorism preparedness, of the total \$40 billion proposed for general defense against terrorism.

The Frist-Kennedy proposal, like Bush's, calls for \$509 million for purchasing enough smallpox vaccine for the country's population and for \$643 million in funds to be spent on beefing up the nation's stockpile of drugs for use after bioterrorist attack. The key difference in the plans, however, is the amount to be funneled into state and local governments. Whereas the Bush plan proposes \$300 million be allocated to bolstering local preparedness, Frist and Kennedy call for approximately \$1.1 billion in aid to states, which includes \$670 to fund grants for bioterrorism preparedness.

Sen. Frist remarked at the introduction of the bill that one of its primary purposes is to "expand research on biological agents and toxins as well as new treatments and vaccines for such agents and toxins." Another aim of the proposed legislation is to require the government to improve tracking and control of biological agents and toxins that could pose a threat to public health and enhance regulations regarding possession, use, and transfer of such agents or toxins. The priorities in this plan differ markedly from the those represented in the Bush plan, which is more focused on simply providing existing vaccines in mass numbers to the population.

Henderson Named Head of New Office of Public Health Preparedness

Health and Human Services (HHS) Secretary Tommy Thompson announced in November the appointment of Donald A. Henderson, MD, to the position of Director of the Office of Public Health Preparedness in the HHS. The mission of this office, which was newly created in response to the September 11th terrorist attacks, is to manage the nation's response to public health emergencies.

Before assuming this position, Henderson served as the founding director of the Center for Civilian Biodefense Studies at the Johns Hopkins Bloomberg School of Public Health and as a Distinguished Service Professor in the Departments of Epidemiology and International Health. He is noted for his leadership of the World Health Organization's (WHO) successful campaign to eliminate smallpox worldwide by the year 1980. He also helped launch a worldwide WHO immunization program for children in 1974. From 1977 to 1990, Henderson served as the Dean of the School of Public Health at Johns Hopkins. He currently chairs a national advisory council on public health preparedness, a position to which Thompson appointed him back in October.

Thompson also announced that Phillip Russel, a retired US Army major general and former director of the Army's Medical Research Institute of Infectious Diseases, would serve the new office as a special advisor on vaccine development and production.

Anthrax Scare Prompts Flurry of Drug Research Efforts

The series of Anthrax-laced letters that began to appear in October of last year has prompted government officials and researchers alike to take

immediate action to ensure the protection of the nation's population. Although a vaccine for Anthrax exists and is in use, it is administered by painful injections and can lead to serious side effects. Thus, many researchers are scrambling to produce a safer, more tolerable vaccine for use against this biological agent. Iomai Corporation of Gaithersburg, Md, for instance, is developing a skin patch vaccine for Anthrax that would greatly facilitate administration.

Although the threat of further Anthrax attacks has evoked national fears, the danger posed by smallpox is far greater. Therefore, HHS has contracted with Acambis, Inc, to manufacture for the government 155 million doses of smallpox vaccine for the price of \$428 million. This, when added to the government's current stockpile, theoretically would provide enough smallpox vaccine for the entire population of the country.

Smallpox was declared to be eradicated from the planet in the late 1970s, but two repositories of the deadly virus, one in the US and one in Russia, have been maintained for the purpose of developing new vaccines in the event of a future outbreak. Although both repositories are purported to be guarded under the tightest security, some believe the virus could fall into terrorists' hands.

In addition to the vaccine for smallpox, some researchers are also working on treatments to administer to individuals after virus infection. Gail Cassell, for example, a researcher at Eli Lilly & Co, sprung into action shortly after September 11th and began working with existing drugs produced by Lilly to devise a treatment for smallpox. Samples of the proposed treatment are now being tested for efficacy against the virus.