Since Fracastorius’ 16th Century writings, physicians have recognized that early detection and intervention limit the morbidity and mortality in a community exposed to a contagious agent. The earlier the detection, the less harm. Early detection is the goal of a computer-based system that has been developed by our school’s Dr. Michael Wagner and his colleagues. The “Real-time Outbreak and Disease Surveillance System” (RODS) sets off an alarm during a surge of reported symptoms in emergency rooms throughout this region that might reflect a bioterrorist attack; RODS was also installed in Utah during the Winter Olympics. The system allows us to determine, on an instant-by-instant basis, unusual increases in flu-like symptoms, respiratory illnesses, diarrhea, skin rashes, encephalitis, etc. A graph showing the incidence of each symptom is updated as soon as patients present themselves in a clinical setting, and a map on a computer screen demonstrates the number of such events reported within any given zip code. Soon, RODS will be linked to cash registers in drugstores, so we can be instantly aware of a run on aspirin, Kaopectate, and the like. On February 5, President Bush visited Pitt to learn about RODS, and he used this forum to inform America of his intention to spend $6 billion in FY2003 for programs to defend the nation against biological terrorism.

While we were pleased indeed with the president’s visit, and the international recognition which we received as a consequence (this was the first visit to Pitt by a sitting president), the fact is this country’s infrastructure for protecting the public health, whether assaults on that health are man-made or natural, has been woefully insufficient. The president’s budget proposes expenditures to support medical communications and training programs, strengthen health systems, build up the pharmaceutical stockpile, upgrade CDC labs, and increase the FDA’s capacity for ensuring food safety. The budget also proposes very significant funding for NIH and DOD research. Yet the weaknesses in our public health infrastructure are only partly addressed by this proposal. Consider the 45 million in this nation with no health insurance. These people ultimately become sicker than they would with proper access to care, and impose a significant financial burden on academic medical centers, which deliver more than half of all the uncompensated care in this country. Consider the extraordinary debt that most med school graduates now face, and the constraining effect that this debt (ultimately $250,000 for indebted students) has on career choice, i.e., the unlikely choice of a career in primary care, or in a rural area or inner city, or in academia as a physician-scientist.

These threats to our public health infrastructure occur when health care delivery has become increasingly complex because of an aging population as well as increased ethnic and racial diversity and the health disparities implicit in this diversity. Perhaps a welcome side effect of our focus on bioterrorism will be that, as a nation, we begin to address these many politically and fiscally daunting issues.

Arthur S. Levine, MD
Senior Vice Chancellor for the Health Sciences
Dean, School of Medicine