

STATEMENT BEFORE THE AD HOC SUBCOMMITTEE ON STATE, LOCAL, AND
PRIVATE SECTOR PREPAREDNESS AND INTEGRATION
COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS
JUNE 3, 2009
STEPHEN M. OSTROFF, MD

Mr. Chairman and members of the subcommittee, let me express my thanks for the opportunity to take part in this hearing, and for your taking the time to discuss state and local preparedness for public health emergencies like the recently identified novel influenza virus. I am Dr. Stephen Ostroff, Director of the Bureau of Epidemiology and Acting Physician General of the Pennsylvania Department of Health. I am here representing not only public health practitioners throughout Pennsylvania, but also epidemiologists nationwide in my capacity as one of the officers of the Council of State & Territorial Epidemiologists (CSTE).

I've actually testified to Congress once before on influenza. The last time was before the Senate Select Committee on Aging and occurred a few years back prior to my retirement from the Centers for Disease Control and Prevention. The topic of that hearing was protecting the elderly from flu and the focus was to encourage seniors to be vaccinated. Of note, one of the other witnesses at that hearing was the CEO of one of the two major flu vaccine producers. He too touted vaccination. Less than a week later, his product was withdrawn from the market due to production lapses, abruptly eliminating half of that year's vaccine supply and plunging our public health system into turmoil.

I tell this story not to reminisce, but as a cogent reminder of the unpredictability and volatility of influenza. Uncertainty arises not only from the virus and the disease it causes, but also from the availability and utilization of our prevention and control tools, including vaccines and antivirals. Just this past flu season the predominant circulating strain became resistant to the major antiviral in our pharmaceutical stockpile. There are few other diseases that we deal with in public health that are so challenging to predict, that so often prove us wrong, and have such profound health consequences.

Our current situation is a great example. As you know, for the last several years we've all been focused on the evolving circumstances of bird flu in the other hemisphere, and rightly so. We've been watching closely because H5N1 is a new and dangerous virus, it causes human disease with fatality rates in excess of 60 per cent, and it has tremendous agricultural implications. Over the last few years the experts have virtually all predicted that it's the next pandemic strain. And it still may be. As a result, we've built many of our flu plans and exercises around the threat of avian influenza.

And then right in our own backyard, literally at our doorstep, a new flu strain sweeps out of nowhere and upsets many of our basic planning assumptions, including the possibility it would first be detected in animals, how long it would take to get to our shores once it appeared elsewhere, what type of disease to watch for, and how best to implement control measures such as quarantine and travel restrictions.

Like our public health colleagues throughout the country, we in Pennsylvania have been responding to the evolving situation with the novel influenza virus and adapting our planning and response to what we see. When the new flu virus was first identified only eight short weeks ago, we quickly established mechanisms to monitor and respond to this new public health threat. We've been doing so with an array of partners, including those at the federal level (primarily the CDC), with our local public health agencies, with our state emergency management structures, with other state agencies such as agriculture and education, with professional societies, with health care practitioners, with academic partners, and with the private sector. Our state is blessed with a number of strong academic centers that have been heavily engaged in pandemic modeling and viral studies. We also have in Pennsylvania one of the major flu vaccine producers and the headquarters of one of the companies making influenza antiviral medication.

While much of our response was built into our pandemic planning framework, we have had to adapt the plans based on the specific circumstances and the perceived threat. In Pennsylvania we immediately set up a Department of Health task force consisting of our

epidemiology unit, the state public health lab, the unit that operates our district and local health departments, our public health preparedness unit, emergency medical services unit, health care facility regulatory unit, and offices of communications, informatics, and legal counsel. Within my bureau, the Bureau of Epidemiology, we've had an ongoing working group with teams specifically devoted to disease surveillance, field investigations, responding to clinical inquiries and public inquiries, producing guidelines and recommendations, handling infection control issues, community mitigation strategies, and laboratory liaison. Right now the epidemiology team meets daily and the departmental task force meets several times per week. For this response our departmental emergency operations center was partially activated to coordinate activities, update the web site, prepare situation reports and other information, triage inquiries, and handle issues related to our strategic stockpile.

Within state government, our emergency management agency organized a statewide task force consisting of relevant state agencies and the local and regional emergency management agencies. The Department of Health actively participated on this task force to share information and assure adequate dialogue.

The Department of Health organized conference calls and briefings with major medical societies in the state (e.g. Pennsylvania Medical Society, pediatricians, hospital association, etc) to share information and answer questions. Briefings were also held for our legislature, repeated press events were held, and we participated in radio and TV call-in programs. These activities were led by our Secretary of Health and Director of Emergency Management. CDC's recommendations were tailored to our state and local circumstances and disseminated using the statewide Health Alert Network of over 3,000 users, plans were established for distribution of material from the stockpile, and specific communications were developed for the Department of Education regarding school monitoring and closures.

Crucial for us was the establishment of daily group calls with our local health departments, who function as our eyes and ears on the front line. As a state with large

relatively autonomous health departments like those in Philadelphia and Pittsburgh, coordination is essential. These calls occurred every morning to share the latest numbers, address clusters and special situations, and answer questions and concerns. We have required daily reporting of suspected, probable, or confirmed illness from each local jurisdiction even if the number is zero, along with hospitalizations for pneumonia, and school absenteeism rates.

Speaking for all of our CSTE membership, we in Pennsylvania have greatly appreciated the leadership and support provided by CDC. They acted rapidly to produce guidance and recommendations, supported lab testing, coordinated national surveillance efforts, conducted special studies, and spearheaded communications to the public. As someone who was in a similar role while at CDC during events like SARS, West Nile, and anthrax, I fully appreciate the pressure to perform and the intense public and media scrutiny, especially since this has occurred during a time of transitional leadership. The states and locals may not necessarily agree with everything coming out of CDC, but we have had ample opportunity to provide feedback and share our opinions. These discussions are spirited and frank, but our federal partners have listened closely and adjusted strategies and tactics based on our feedback.

The novel flu strain came a bit later to Pennsylvania than other parts of the country. To date, we have confirmed more than 200 cases statewide, most of them in the southeast around Philadelphia, although our numbers are now increasing more rapidly than they did early on. Our disease patterns have been similar to the rest of the country in terms of demographics and severity. Unlike other parts of the country which have modified their surveillance strategies, in Pennsylvania we continue to do individual case investigations, and encourage lab testing in order to identify problem situations, trends in illness, and to watch the spread of the virus into still relatively unaffected areas of the state. So far, we've closed only one school in the state because of virus transmission among the children. We've also taken advantage of this unique situation by inviting CDC to study this episode to assess the patterns of transmission, how long the school children will shed the virus to inform national policies on school closure duration, and to assess the

economic and social impact of school closure. A CDC team has been onsite now for more than two weeks.

Counting cases of the novel influenza virus has been challenging for epidemiologists around the country. For seasonal flu, we do not count individual cases of diseases. The numbers are far too large, and there is no individual public health response for most cases. Flu surveillance is geared towards identify trends – namely when the disease is occurring, how severe it is, which groups are most affected, and which viruses are circulating. We only estimate the overall burden of disease through well established systems like sentinel physician networks, mortality reporting from a network of city vital statistics offices, weekly estimates of activity, and monitoring of lab results of flu testing. Efforts to identify and investigate all cases of the novel influenza virus were appropriate during the early stages of the outbreak, especially because individualized interventions were implemented for these cases. But many of the highly impacted states have transitioned away from individual case counting, and are only testing in special circumstances, such as severe disease or populations such as health care workers and pregnant women. Thus the national case counts are increasingly difficult to interpret and should be viewed with caution when assessing disease burden and trends, since different states are counting in different ways.

Many aspects of our response have gone well. We believe our extensive pandemic planning efforts have helped to guide our response. Aspects that have gone well include risk communications, surveillance and reporting, statewide coordination, and clinical case management.

However, there have been challenges. This outbreak has happened at a difficult time. Like most other states, Pennsylvania has significant budgetary challenges, and our public health system is equally affected and stressed. We've been affected by hiring freezes which have left minimal bench strength and have been relying heavily on a small number of critical personnel, especially to conduct field investigations and laboratory testing. Many other public health priorities, including routine investigations and surveillance

activities, have been shortchanged to reposition staff to respond to novel influenza virus. Laboratory bottlenecks rapidly developed when specimens were being sent to CDC for confirmation. Even now our lab struggles to keep pace with the testing workload. These stresses have surfaced in the absence of substantial amounts of disease likely to be seen during a pandemic. We have not had to deploy stockpile elements, deal with large numbers of illnesses overwhelming our health care system, or worker absenteeism anticipated during a pandemic,

No one can predict what will happen in the coming months with this new virus and whether any of the above will need to be utilized. We in Pennsylvania, as in all states, are presuming that things will get worse before they get better. Either now or in the fall. This is a pattern seen in previous pandemics. The best case scenario more people will get sick but the severity will not change. However, there's nothing to say the virus won't evolve, become more virulent, or acquire antiviral resistance like the recent seasonal flu strain, rendering our stockpiles of antiviral agents useless. We must also plan for options for vaccine and antiviral distribution and administration.

To do so, we are currently embarking on a formal evaluation of our recent performance in order to inform our planning for later this year. We will clearly need to enhance our laboratory capacity and better automate our surveillance activities. We also need to streamline our monitoring for hospitalizations and hospital utilization, improve our mortality reporting, and create better situational awareness. We believe this is achievable if adequate resources are available. Our position is that it is better to be over-prepared than under-prepared. In this regard, our preparedness funds have been helpful, but do not fully cover the needs for optimal influenza surveillance and diagnostics. Also, there was little role in the current situation for our emergency management partners, who stood by waiting for assignments and activities. However, in a full-fledged pandemic, they will be critical to a successful response. We do not want them to think that our planning efforts to date were misguided or unnecessary.

Influenza is generally considered the prototypic emerging infectious disease. But it is only one in a long and continuing line of public health problems. At present we are dealing with large-scale foodborne outbreaks, antibiotic resistant pathogens like MRSA, and reemerging vaccine preventable diseases like measles and pertussis. A few years ago it was vectorborne agents like West Nile and respiratory pathogens like SARS. These problems all fall to the same groups of epidemiologists and laboratorians on the frontlines at the state and local level. They highlight the need for a robust and flexible disease surveillance, investigation and response infrastructure, and the need to build and strengthen the public health workforce. Public health is primarily for and about people, not databases and computers. Our federal support in these areas has declined significantly in recent years and has not been replaced through categorical programs. Hopefully this will change. Especially because we have much to do right now and over the coming months to meet this new challenge.