# status report

UNIVERSITY OF PITTSBURGH
Institute of Politics

## Preparedness for Health Emergencies in Pennsylvania: Implications for Public Policy

by Clarke Thomas
March 2005

In partnership with the Center for Public Health Preparedness, a CDC funded project of the Graduate School of Public Health Center for Public Health Practice

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# INTRODUCTION

*by Patt Sweeney*

In recent years, tremendous energy and attention have been directed toward bioterrorism preparedness and planning. Considerable progress has been made, particularly in the areas of threat assessment, coordinated emergency planning, incident command training, and the provision of appropriate personal protective equipment for first responders.

However, the February 2004 Government Accountability Office report on the progress of state preparedness and the December 2004 report from the Trust for America's Health both contain important reservations. They note that though states have become *more* prepared since 9/11, there are significant areas where preparedness remains incomplete across the various governmental agencies holding responsibility for emergency planning and response. One such area is legal preparedness for public health emergencies.

As an Academic Center for Public Health Preparedness funded by the federal Centers for Disease Control and Prevention (CDC), the University of Pittsburgh Center for Public Health Preparedness (UPCPHP) has a responsibility to facilitate public health preparedness across the commonwealth. To identify the areas where Pennsylvania's preparedness for public health emergencies may be enhanced, the UPCPHP collaborated with the University of Pittsburgh Institute of Politics to conduct a project titled **"Preparedness for Health Emergencies in Pennsylvania: Implications for Public Policy."** This project engaged knowledgeable public-sector professionals with emergency preparedness and response responsibilities in an evaluation of the legal and policy infrastructure underlying the response to health-related emergencies in Pennsylvania. The current organization and capabilities of the Pennsylvania emergency response system are outlined in Section 1—Present Law: Pennsylvania's Preparedness Capacity.

To conduct this study it was imperative to engage individuals with responsibility for the various facets of health-related emergency planning and response. Invited to participate in a five-phase project were 20 individuals representing Pennsylvania state and local public health officials; regional emergency medical services; state and local emergency management agencies; state agricultural safety personnel; federal, state, and local law enforcement; county-level judiciary; rural hospital representatives; regional counterterrorism task forces; health law and civil rights attorneys; and county and municipal elected officials. Participation was voluntary. One invitee declined.

The 19 remaining participants were initially asked to review a fictional scenario depicting a slowly developing public health emergency with the potential to profoundly stress functional capacities. Participants then discussed their respective responsibilities in such an event and any surveillance and recognition issues, communication needs, or authority and responsibility concerns generated by the scenario. The content of these discussions has been transcribed and presented in the second section of this report, Initial Reaction: Interviewees' Responses to a Public Health Emergency Scenario.

Following the initial interviews, the participants met in a facilitated roundtable discussion to review the issues presented by the scenario, to define the protective and response actions needed, and to articulate the legal authority and/or responsibility concerns they felt the scenario had raised. During this discussion, participant comments indicating incomplete or unclear preparedness planning and response were explored, and the policy and legal issues needing further study were defined. The interviews and roundtable discussion elicited specific areas of legal and policy infrastructure that need to be addressed.

The most pressing areas of concern that emerged from the initial interviews and the roundtable discussion are presented in Section 3—Disconnects in Pennsylvania Public Health Policy. Sections 4 and 5, respectively, focus on federal policies that affect state emergency preparedness, and general Pennsylvania policy issues of concern. Finally, Section 6 contains a listing of agencies involved in public health emergency planning and response. Section 7 contains a glossary of related terms and acronyms.

# SECTION 1—PRESENT LAW: PENNSYLVANIA'S PREPAREDNESS CAPACITY

*by Margaret Potter*

The commonwealth's preparedness capacity rests in large part on current laws that allocate duties and responsibilities among various agencies in the fields of health, agriculture, emergency management, emergency medical response, environment, and law enforcement. Each of these fields has important components at the state, local, and national levels. An overview of this legal infrastructure will assist readers in interpreting the interview section that follows.

A county-by-county listing of agencies with public health authority for responding to emergencies in Pennsylvania appears at the end of this section.

## Agriculture and Food Safety

The mission of the Pennsylvania Department of Agriculture (PDA) is to encourage, protect, and promote agriculture and related industries throughout the commonwealth. It is responsible for (among other things) the control and eradication of diseases in livestock and poultry and as well as the assurance of food safety in some areas. It maintains a regional office in each of seven multicounty regions.

PDA inspects restaurants, except in counties or municipalities with an Act 315 health department.

The U.S. Department of Agriculture (USDA) monitors food safety nationally.

## Emergency Management

Historically, Pennsylvania's organization of emergency management functions reflects the maxim that "all disasters are local." In each county an emergency coordinator is appointed by elected officials—typically, a board of commissioners. The coordinator's role is to organize, plan, train, and execute the county's response to disasters and emergencies among its police, fire, hazardous materials, and emergency-medical services. The county coordinator calls upon the Pennsylvania Emergency Management Agency (PEMA) for funds, personnel, and equipment when the scope of a disaster warrants. Nevertheless, disasters requiring rapid response often exceed an individual county's resources, so adjoining counties have historically participated in voluntary associations and mutual-aid agreements.

Pennsylvania is among the first states in the nation to develop a multicounty structure for counterterrorism planning, training, and response. The events of September 11, 2001, spurred the Pennsylvania General Assembly to enact a statute—Act 227 of 2002, Counterterrorism Planning, Preparedness and Response Act—which formalized the voluntarily formed multicounty regions. The statutory plan divided the commonwealth into nine multicounty regions called regional counterterrorism task forces (RCTTFs), each chaired by one of its county emergency coordinators. Though coordinators remain formally accountable to the elected officials in their respective counties, the RCTTFs as multicounty units are the recipients of both funding and guidance from PEMA. The director of PEMA reports to the commonwealth's lieutenant governor.

The lead federal agency for consequence management of terrorist events is the Federal Emergency Management Agency (FEMA), which provides resources and assistance to states in response to presidential declarations of emergency.

## Emergency Medical Response

The commonwealth is divided into 16 multicounty emergency medical service (EMS) regions. The PA Department of Health (PA DOH) coordinates training for EMS personnel statewide. A designated hospital within each EMS region coordinates and directs services.

## Health

Pennsylvania has a sparse, decentralized organizational structure for public health. It is made up of three systems that function independently: a state health department (PA DOH); ten county or municipal health agencies, and 237 independent local health officers.

The state health system includes central, district, and local components. The central office of the PA DOH located in Harrisburg is the system's administrative hub. It supervises the six multi-county health districts, each of which has a district office. District personnel provide services for each of their counties, and most counties have a state health center—typically a storefront office staffed by a public health nurse and a secretary. Three counties have a private contractor in place of a state health center. The state health system is responsible for infectious disease prevention and containment, maintains a federally funded preparedness program, and trains school-based nurses.

Act 315 of 1951, the Local Health Administration Law, established standards and criteria for counties to create their own boards of health, and for cities with existing boards of health to maintain them. But in meeting these standards and criteria, each local health department functions separately from the PA DOH but nevertheless operates with the support of state funds. There are currently 10 county or municipal health departments. Eight of these are located in the eastern third of the state: Bucks County, Chester County, Montgomery County, Philadelphia County, and the cities of Allentown, Bethlehem, Wilkes-Barre, and York. The two other departments are located in the far northwest (Erie County) and the southwest (Allegheny County). These local health departments have broader authority than the state health system: infectious disease, food safety, and environmental concerns (air and water) have been added to their prevention and containment responsibilities.

There are 237 municipal health officers who have been appointed and who function outside the Act 315 structure and funding framework. These officers, often functioning without staff support, serve largely in the third class (medium-sized) cities and boroughs. They are less likely to be found in sparsely populated areas or in areas with county health departments. Given their sparse staffing and resources, these health officers provide limited and various services, depending on their municipality.

The federal Centers for Disease Control and Prevention (CDC) becomes involved in intra-state matters at the invitation of the state health authorities. The CDC sponsors two electronic reporting systems that support surveillance and communication within Pennsylvania. The National Electronic Disease Surveillance System (NEDSS) receives reports of diseases from hospitals, physicians, and health agencies at the local and state levels; NEDSS interprets these reports and issues alerts when an outbreak appears to be unusual or serious. The Health Alert Network (HAN) allows the CDC to deliver health alerts and information to all fifty states, as well as to local health agencies.

## Law Enforcement

Law enforcement in the commonwealth has local, state, and federal components. Counties and municipalities maintain their own police forces, and the state police provides coverage in some small municipalities that lack their own forces. The Pennsylvania State Police has four troop regions located in Harrisburg (six stations), Philadelphia (three stations), Wyoming (four stations), and Dunmore (four stations). The Federal Bureau of Investigation investigates violations of federal law and, under Presidential Decision Directive 39, has prime responsibility for domestic-crisis response over other federal and state agencies.

## Conclusion

The details in this section provide a general evaluation of the current status of Pennsylvania's capacity to respond to and manage a public health emergency. The interviewees for this status report work day-to-day within these organizational realities. This overview, then, should be helpful in understanding the context of the interviews in Section 2, which comes after the following tabular summary.

## PUBLIC HEALTH EMERGENCIES: AGENCIES WITH AUTHORITY IN PENNSYLVANIA COUNTIES & CITIES

(See Section 7 for terms and acronyms.)

| County ACT 315 Health Dept. | Food Safety:* handling and distribution | Food Safety:* eating and drinking establishments | Infectious Disease | Regional Disaster Management (Counter-terrorism Task Force) | Emergency Medical Services (EMS) |
|---|---|---|---|---|---|
| Adams | PDA Region 6 | | PA DOH south central | South Central | EHS Federation |
| **Allegheny** | PDA Region 4 | County Health | County Health | Southwestern | EMS Institute |
| Armstrong | PDA Region 4 | | PA DOH southwest | Southwestern | EMS Institute |
| Beaver | PDA Region 4 | | PA DOH southwest | Southwestern | EMS Institute |
| Bedford | PDA Region 5 | | PA DOH south central | South Central Mountain | Southern Alleghenies EMS Council |
| Berks | PDA Region 7 | | PA DOH southeast | East Central | Eastern Pa. EMS Council |
| Blair | PDA Region 5 | | PA DOH south central | South Central Mountain | Southern Alleghenies EMS Council |
| Bradford | PDA Region 3 | | PA DOH north central | North Central | Bradford Susquehanna EMA Council |
| **Bucks** | PDA Region 7 | County Health | County Health | Southeast | Bucks County EHS Council |
| Butler | PDA Region 4 | | PA DOH southwest | Southwestern | EMS Institute |
| Cambria | PDA Region 5 | | PA DOH southwest | Southwestern | Southern Alleghenies EMS Council |
| Cameron | PDA Region 2 | | PA DOH northwest | NW Central | EMMCO East |
| Carbon | PDA Region 3 | | PA DOH northeast | Northeast PA | Eastern Pa. EMS Council |
| Centre | PDA Region 5 | | PA DOH north central | South Central Mountain | Seven Mountains EMS Council |
| **Chester** | PDA Region 7 | County Health | County Health | Southeast | Chester County EMS Council |
| Clarion | PDA Region 1 | | PA DOH northwest | NW Central | EMMCO West |
| Clearfield | PDA Region 5 | | PA DOH northwest | NW Central | EMMCO East |
| Clinton | PDA Region 2 | | PA DOH north central | North Central | Seven Mountains EMS Council |
| Columbia | PDA Region 2 | | PA DOH north central | East Central | Susquehanna EHS Council |
| Crawford | PDA Region 1 | | PA DOH northwest | Northwestern | EMMCO West |
| Cumberland | PDA Region 6 | | PA DOH south central | South Central | EHS Federation |
| Dauphin | PDA Region 6 | | PA DOH south central | South Central | EHS Federation |
| Delaware | PDA Region 6 | | PA DOH southeast | Southeast | Delaware County EHS Council |
| Elk | PDA Region 1 | | PA DOH northwest | NW Central | EMMCO East |
| **Erie** | PDA Region 1 | County Health | County Health | Northwestern | EMMCO West |
| Fayette | PDA Region 4 | | PA DOH southwest | Southwestern | EMS Institute |
| Forest | PDA Region 1 | | PA DOH northwest | Northwestern | EMMCO West |
| Franklin | PDA Region 6 | | PA DOH south central | South Central | EHS Federation |
| Fulton | PDA Region 5 | | PA DOH south central | South Central Mountain | Southern Alleghenies EMS Council |
| Greene | PDA Region 4 | | PA DOH southwest | Southwestern | EMS Institute |
| Huntingdon | PDA Region 5 | | PA DOH south central | South Central Mountain | Southern Alleghenies EMS Council |
| Indiana | PDA Region 4 | | PA DOH southwest | Southwestern | EMS Institute |
| Jefferson | PDA Region 1 | | PA DOH northwest | NW Central | EMMCO East |
| Juniata | PDA Region 5 | | PA DOH south central | South Central Mountain | Seven Mountains EMS Council Inc. |
| Lackawanna | PDA Region 3 | | PA DOH northeast | Northeast | EMS of Northeastern PA |
| Lancaster | PDA Region 6 | | PA DOH southeast | South Central | EHS Federation |

| | | | | | |
|---|---|---|---|---|---|
| Lawrence | PDA Region 4 | | PA DOH northwest | Southwestern | EMS Institute |
| Lebanon | PDA Region 6 | | PA DOH south central | South Central | EHS Federation |
| Lehigh | PDA Region 7 | | PA DOH northeast | Northeast | Eastern Pa. EMS Council |
| **Allentown** | PDA Region 7 | City Health | City Health | Northeast | Eastern Pa. EMS Council |
| Luzerne | PDA Region 3 | | PA DOH northeast | Northeast | EMS of Northeastern Pa. |
| **Wilkes-Barre** | PDA Region 3 | City Health | City Health | Northeast | EMS of Northeastern Pa. |
| Lycoming | PDA Region 2 | | PA DOH north central | North Central | Lycoming, Tioga & Sullivan EMS Council |
| McKean | PDA Region 1 | | PA DOH northwest | NW Central | EMMCO East Inc. |
| Mercer | PDA Region 1 | | PA DOH northwest | Southwestern | EMMCO West |
| Mifflin | PDA Region 5 | | PA DOH south central | South Central Mountain | Seven Mountains EMS Council |
| Monroe | PDA Region 3 | | PA DOH northeast | Northeast | Eastern Pa. EMS Council |
| **Montgomery** | PDA Region 7 | County Health | County Health | Southeast | Montgomery County EMS |
| Montour | PDA Region 2 | | PA DOH north central | East Central | Susquehanna EHS Council |
| Northampton | PDA Region 7 | | PA DOH north central | Northeast | Eastern Pa. EMS Council |
| **Bethlehem** | PDA Region 7 | City Health | City Health | Northeast | Eastern Pa. EMS Council |
| Northumberland | PDA Region 2 | | PA DOH north central | East Central | Susquehanna EHS Council |
| Perry | PDA Region 6 | | PA DOH south central | South Central | EHS Federation |
| **Philadelphia** | PDA Region 7 | County Health | County Health | Southeast | Philadelphia EMS Council |
| Pike | PDA Region 3 | | PA DOH northeast | Northeast | EMS of Northeastern Pa. |
| Potter | PDA Region 2 | | PA DOH north central | North Central | EMMCO East |
| Schuylkill | PDA Region 7 | | PA DOH southeast | East Central | Eastern Pa. EMS Council |
| Snyder | PDA Region 2 | | PA DOH north central | South Central Mountain | Susquehanna EHS Council |
| Somerset | PDA Region 5 | | PA DOH southwest | Southwestern | Southern Alleghenies EMS Council |
| Sullivan | PDA Region 3 | | PA DOH north central | North Central | Lycoming, Tioga & Sullivan EMS Council |
| Susquehanna | PDA Region 3 | | PA DOH northeast | Northeast | Bradford Susquehanna EMA Council |
| Tioga | PDA Region 2 | | PA DOH north central | North Central | Lycoming, Tioga & Sullivan EMS Council |
| Union | PDA Region 2 | | PA DOH north central | North Central | Susquehanna EHS Council |
| Venango | PDA Region 1 | | PA DOH northwest | Northwestern | EMMCO West |
| Warren | PDA Region 1 | | PA DOH northwest | Northwestern | EMMCO West |
| Washington | PDA Region 4 | | PA DOH southwest | Southwestern | EMS Institute |
| Wayne | PDA Region 3 | | PA DOH northeast | Northeast | EMS of Northeastern Pa. |
| Westmoreland | PDA Region 4 | | PA DOH southwest | Southwestern | EMS Institute |
| Wyoming | PDA Region 3 | | PA DOH northeast | Northeast | EMS of Northeastern Pa. |
| York | PDA Region 6 | | PA DOH south central | South Central | EHS Federation |
| **(City of) York** | PDA Region 6 | City Health | City Health | South Central | EHS Federation |

*PDA has almost exclusive responsibilities related to eggs, fruits and vegetables, intra- and inter-state shellfish, maple products, and milk sanitation. The PDA requires registration and inspection of all manufacturers of food products and retail food stores and facilities used for the purpose of commercially storing, packaging, processing, or otherwise handling or transporting food within the commonwealth. Establishments are regulated under Pennsylvania's Act 70, the Food Act. The U.S. Food and Drug Administration (FDA) publishes the *Food Code*, a model that assists food control jurisdictions at all levels of government by providing them with a scientifically sound technical and legal basis for regulating the food service industry. Local, state, tribal, and federal regulators use the FDA *Food Code* as a model to develop or update their own food safety rules and to be consistent with national food regulatory policy.

# SECTION 2—INITIAL REACTION: INTERVIEWEES' RESPONSES TO A PUBLIC HEALTH EMERGENCY SCENARIO

*by Clarke Thomas*

This report is the result of 19 telephone interviews of persons at various governmental and nongovernmental levels who were selected by the Center for Public Health Preparedness at the University of Pittsburgh. The interviews were conducted by Clarke M. Thomas, senior editor (retired) of the *Pittsburgh Post-Gazette,* between May 13 and June 25, 2004.

These persons were first sent copies of a scenario imagining a suspicious incident somewhere in rural Pennsylvania, along with points and questions to be considered. **The scenario as distributed is reproduced below:**

*It is late summer and patients are arriving at hospital emergency departments in rural Pennsylvania exhibiting high fever (temperature >100.4°F), lower respiratory tract symptoms, conjunctivitis, pneumonia, and/or unexplained respiratory illness resulting in death. One patient has died. Autopsy findings reflect acute respiratory disease syndrome (ARDS) without identifiable cause.*

*Preliminary lab tests suggest that the causative agent may be an antigenic form of Avian Flu similar to the 1997 Hong Kong strain (H5N1) that hospitalized 18, six of whom later died. (To control the outbreak, authorities killed over 1.5 million chickens.) A virus is simultaneously spreading among chicken and pig farms in Pennsylvania that may be transmissible to humans. It is not clear whether it's the same virus affecting animals and humans, but outbreaks are occurring in both the animal and human populations. Person-to-person transmission has been confirmed; animal-to-person transmission is suspected.*

*The first human cases are among farmers and family members who contracted the flu following attendance at a farm show exhibition in Harrisburg several days earlier. Of the initial cases, six have been seen at Regional Medical Center in Rural County A, two at Community Hospital in Rural County B, and four at Memorial Hospital in Rural County C. These hospitals are located in jurisdictions served by two different regional counterterrorism task forces. Two of the initial cases were transported from Regional Medical Center to City Hospital, 90 miles away in Any City, Pa. One of these patients died.*

*The possibility of an intentional release of the agent cannot be ruled out. (One of the sick farmers in County C reported a trespasser on his farm and recalls that a number of dead chickens were found just before he attended the farm exhibition to show his prize birds.)*

## *Scenario Assumptions:*

1. *Hospitals in rural Pennsylvania are beginning to be overwhelmed by new cases.*
2. *Emergency departments in rural Pennsylvania are requesting that ambulance services divert patients to surrounding hospitals as all available beds are filled. (Postponement of elective surgeries and other measures to create additional staffed beds have not yet been implemented since the outbreak is underrecognized, yet rapidly evolving.)*
3. *Flu vaccine for the normally occurring flu season has not been manufactured in sufficient quantities at this time.*
4. *The effectiveness of existing Type A vaccine and the practicality of manufacturing vaccine for the H5N1 virus are questionable.*
5. *The case fatality rate may be as high as 30 percent without aggressive treatment with antiviral medications.*
6. *This strain affecting domestic chickens, ducks, and swine has not been seen before and is highly unusual in that it may be infecting humans.*
7. *Wild birds (turkeys and ducks) are found dead in disparate counties throughout Pennsylvania.*
8. *There is a shortage of antiviral medications available; these appear to be effective if given early and in large doses.*
9. *Panic and fear are spreading.*
10. *Cases have not yet been detected in major urban areas.*
11. *It is not yet clear if flu-like cases in Harrisburg are linked to the initial cases in Counties A and B.*
12. *A potential flu pandemic could be in the making.*
13. *An emergency declaration by the governor has not yet been made.*

In succeeding weeks, interviewees were telephoned about their initial reaction to the scenario. The intended pattern was to start at the local level and work up to the state and federal levels. Fitting people's busy schedules often meant varying that "ladder" approach. The reports below are given in the order in which the interviews were made.

The interviewing procedure consisted first of asking: "Faced with this scenario, what would you first do in response?" A rich variety of responses emerged, as can be seen from the following reports:[1]

**Pamela Tokar-Ickes,** Commissioner, Somerset County

My initial reaction is one of horror. You hope it doesn't happen in your backyard.

In the Flight 93 emergency, we were surprised at the responsibility that fell on county officials. I remember being pulled aside by PEMA [Pennsylvania Emergency Management Agency] officials and told we were responsible for providing everything needed. It was a rude awakening—about $280,000 worth, with nothing in the budget for that sort of thing. There were a lot of promises by federal and state officials—"We'll make you whole." We've been reimbursed for everything, including a recent $50,000 reimbursement—except the airline's share of $64,000.

First, I'd turn to my emergency management director, who is active in the Region 13 Task Force. We would know that at this time in August, the region is busy with county fairs and festivals, meaning decisions would have to be made as to cancellations. And most of our schools return before Labor Day; we would be talking to the school superintendents association on that. I would rely on my EM director to be in touch with others—the medical people, the PA Farm Bureau, the local farm extension agency. We would be setting up our emergency operation center, bringing in a host of individuals versed in the roles they are to play in a situation like this.

Second, I'd make sure that there was one central point of contact for information gathering and dissemination. We learned this in Somerset with the Flight 93 tragedy. I was formerly in the media, in a radio station and a newspaper, so I know the importance of this step for tying events together.

The county would not issue a quarantine. The state and the federal government would supersede. However, the county could issue an emergency declaration, under our powers. I would err on the side of caution. But we would encourage people to cancel events, not to take animals anywhere. I would think there would be an automatic cancellation of the county fair. We have no power on that, but we would work with the fair board with a strong recommendation that they cancel.

As I said, Flight 93 showed the degree of responsibility that falls on county officials. I believe most county officials will do what has to be done—and worry about the money later.

**Steve Nelson,** Emergency Management Coordinator, McKean County

The scenario certainly wouldn't fit me in my job. By the time the case goes to the labs, other agencies will know it already. The state departments of health and of agriculture would take the lead.

But I would urge the county commissioners to declare a disaster if two or more municipalities were affected.

The initial indication will be people showing up at hospitals with similar symptoms—or red flags of warning from sick pigs. Hospitals will notify the state. We have a mass inoculation bank ready to activate. But doctors or clinics couldn't handle 60,000 or 70,000 people. We'd have to open up sites; that request would come from me.

We have a county fair in August; that would be a definite concern. My thought would be not to cancel the fair, but to ask people not to bring animals there. We don't have the authority to shut it down. I do auto accidents; airplane accidents. I don't want the authority to say that a cow has a runny nose, therefore shut down the fair.

People have an exploded idea of our authority because in floods and tornadoes we show up with badges and so on. I see my responsibility as getting the task turned over to PEMA.

**Richard Knecht,** Director for Public Health Emergency Preparedness, Erie County

We would coordinate with other agencies. We would use our Blast FAX to send the word to all hospitals and private physicians. If outside the working hours, 8 a.m. to 4 p.m. Monday through Friday, we would utilize the media. The county executive has that power. We would work with the Northwest District of the PA Department of Health, located in Mercer County, and with the Erie mayor.

We've been preparing for this kind of a scenario for a long time, and in our exercises it has worked well. Of course, even with pre-awareness, there will be a degree of uncertainty when it hits.

We have the legal authority to quarantine. We would have to go through the courts. Even if the governor didn't declare an emergency, we would ask for voluntary cooperation within the county. Even if we declare a quarantine, we don't have the police capability to enforce it. So it has to be voluntary. Canada, during the SARS epidemic, found it couldn't enforce a quarantine; they found they had to go with voluntary compliance.

[1]All interview transcripts have been revised and approved as directed by interviewees.

One thing that has happened since 9/11 is that we are much more aware of the need for talking with each other. It doesn't mean we are holding hands, but now we know better what our capabilities are and the extent of our ability to work with other public organizations.

**John Peterson,** Health Officer, City of Bradford

The first step would be to contact the Bradford Regional Medical Center, the state health department, and the CDC in Atlanta. As information came in, we would disseminate it to the public through newspapers, radio, and TV—the Buffalo and Erie stations. We would especially give out information about symptoms: "If you are having any of these symptoms, contact your physician or local emergency department."

It's important to realize that in rural situations, people [public officials] wear many hats. It's hard to find people on a volunteer basis. I'm the city clerk, the health officer (the health department is a side department of the fire bureau), deputy emergency management coordinator, and the former fire chief. Familiarity with various roles can be an asset.

**Michael Meit,** Director, Center for Rural Health Practice, University of Pittsburgh at Bradford

This scenario points out the gaps in the health infrastructure in rural Pennsylvania, with no system of local health departments. There are only 10 in the entire state. The law is there to allow communities to establish health departments, but the incentives for increasing this component are not.

The hepatitis A outbreak in Beaver County in the winter of 2003 [the so-called Chi-Chi's restaurant case] showed the problem, with 600 confirmed cases and mass vaccination needed. The state health department did a good job, but it had to pull every last resource to do it, bringing in people from all over. It was helpful that it was in the Pittsburgh region, with its resources available; otherwise, it might have been a different story. And this response would work only if there were just one contained event at a time.

In lieu of local health departments, we need to increase staffing in our district health offices and at the county-level state health clinics. A study in 2000 showed Pennsylvania lowest among the states in the per capita number of public health employees—37 per 100,000 people—and that is skewed because they are largely in urban areas. In rural areas, I would guess three or four per 100,000, and in many counties there is just one public health nurse. And we are talking about coverage for 3 million rural residents, not to mention the many nonrural residents who also happen to live in areas without local public health departments (including Harrisburg, Lancaster, Williamsport, etc.). Compare that with our neighbors in New York State: Allegany County, with the same population as McKean (45,000), has approximately 70 employees in its local, county-based health department; Cattaraugus (82,000 population) has over 100.

We need to increase staffing in district offices, give district offices more autonomy, and have more public health staff located within the county-based clinics. Alternatively, we need to increase the incentives for communities to establish operational local health departments to assure adequate provision of essential public health services. While necessary for addressing public health emergencies, these improvements will also address the everyday public health needs of our rural residents and improve their health status, which continues to lag behind that of nonrural residents.

**John Cleland,** Common Pleas Judge, McKean County

With the courts, there are three basic operating assumptions: One is that the courts are open and available. Most rural counties have only one or two judges. What if one is ill? Would courts have facilities and equipment (masks?) to stay open in an emergency? The federal courts are not an option—Erie's is 90 miles away; Pittsburgh's, 125 miles. The second assumption is that there will be someone to bring cases to court; that is, people prepared to bring cases to court and lawyers to represent them in such unique cases. The third operating assumption is that we have good information to make informed policy and a way to communicate decisions to the general public.

What are the pertinent issues that would come up?

1. Issues involving patients in hospitals. What about advance healthcare directives? Incompetency hearings? Older people who live alone? Older adults in protective services? People in serious physical condition? Who is to make the decision for them?
2. Can the courts order treatment? What about a farmer who doesn't want it, but may spread disease? What if someone says, "Don't treat me, I want to die"—yet in the meantime may infect others?

3. Dependency. What about children whose parents are ill? Would that be a basis for taking the children into protective custody? What about kids in foster care? Note: In our county we have a treatment facility with kids from all over the state, placed there by home county judges. Could a McKean County judge change their custody orders?
4. Defendants in jail. What are their rights in an epidemic?
5. Home searches to check for people who are ill—one of numerous civil liberties questions that arise. These worries turn my hair gray.
6. What about someone who says, "I'm healthy and I want to leave"? It's one thing to say, "This is a disaster, you can't come in," but something else to say, "You can't leave, even though you might get infected and die if you stay." We have an airport in the county. Is there a way to restrict people from fleeing by air or by the highway?

Clearly, everything would be easier if the governor declared an emergency—suspending regulatory statutes, waiving contracting restrictions such as public notice on contracts, sending in the Army National Guard, prescribing routes in and out and control of persons in and outside the area.

But obviously there is an education gap for judges about what our powers and responsibilities are in such situations. There's an education gap for the bar, in terms of having counsel for hospitals and solicitors to act on behalf of emergency people.

**Kimberly Gray,** Chief Privacy and Security Officer, Pennsylvania Bar Association; Cochair, Health Care Law Committee, Pennsylvania Bar Association; and Chief Privacy Officer, Highmark Inc.

What we need first is quick and efficient data sharing. The state is in the NEDSS [National Electronic Disease Surveillance System]. The gap, though, is that providers may inadvertently inaccurately diagnose, or a provider in one rural county might diagnose it as one disease and someone in another county diagnose it as another. It would be better to track the symptoms rather than just the diagnoses, so as not to limit the NEDSS. Open up the database to the first providers, such as emergency medical groups, to allow quick reporting of such symptoms as a patient complaining of diarrhea or nausea, coughing, not being able to breathe.

Also, get pharmaceutical information into the loop. Druggists are quick to notice an uptick in drug sales of antibiotics and antivirals. What about veterinarians? There is a subset of NEDSS for them. But some veterinarians may not want to automate because of the cost. People worry about HIPAA, [the federal Health Insurance Portability and Accountability Act of 1996], the law governing private information. But HIPAA actually allows for data sharing. It can be a good bridge between the public and private sectors. Note: If you are concerned about terrorists, you have to be careful about hackers by employing good security standards. If a full pandemic emerged, the overriding public good would come out in the lead over any privacy arguments. But emergency personnel can always say "a patient," or use the zip code but not the name or date of birth. We are looking for trends, not names. Even the Patriot Act allows an awful lot of sharing of information.

**John Lutz,** Captain, Pennsylvania State Police, Office of Domestic Security; Liaison with other state agencies, including Pennsylvania Homeland Security, as well as with numerous federal agencies

Pennsylvania State Police have the resources to be of major help. We have 4,000 troopers assigned to troops and stations around the state. Should an incident occur, troopers from the immediate area of the incident would be initially dispatched. The department would activate emergency plans. As part of this, troopers would work 12-hour stints, and days off would be cancelled. Personal protective equipment is available for all troopers if necessary. We have air assets (fixed wing and helicopters) to provide a variety of functions, such as to fly samples or to take a doctor in Harrisburg to the affected rural area. We are part of the forensic epidemiology process, along with the PA Department of Health. We would be looking for advice from that department in the event of a bio event.

Quarantine? Sealing off an area would be quite difficult. Depending on the specific area of the state, it wouldn't take much to clog the highways. But even in rural areas, we have troopers available. We would be in touch with PennDOT [Pennsylvania Department of Transportation]; they know the state highway system and roads in and out of the affected area. Depending on the type of event, we might urge people to stay where they are—sheltering in place, we call it.

We have our own Pennsylvania Criminal Intelligence Center (PaCIC). Once our troop at the local level was notified by victims or by other local or state agencies, the information would be passed to that center. Even if the incident seemed innocuous, the center would compare it to other events in the country (situational awareness) to see if a pattern could be established, and would participate with a number of resources and data bases, including the U.S. Department of Homeland Security. We have troopers assigned full time to the three joint terrorism task forces in Pennsylvania.

**Michael Allswede,** MD, Director, Strategic Medical Intelligence (SMI), UPMC Center for Biosecurity

I would suggest approaching the problem as we did in a recent national meeting. We used a real event—a smallpox outbreak in 1971 in Kazakhstan. We sharpened the focus by drilling down to the details—detection, characterization, and response phases, starting with the local and county level and going on up through

the quarantine phase and straight to the president. The first piece is the public health focus. Second, add law enforcement. The third piece, add management.

Avian flu is a great context. The scenario has possibilities for a great deal of disagreement and richness for management authorities. The trouble with this scenario is that it is obscure. It may not excite an elected official as it does a public health official. The latter has nothing to lose, but an elected official does. Lots of questions:

1. How do you arrest violators? What about the health of the arresters?
2. Who pays for the cleanup, such as the use of a stadium for quarantine?
3. What about the lag time for further lab study? Avian flu is a lengthy lab affair, as SARS has shown. At whose lab is the work to be done?
4. Compelled treatment. Suppose you have to vaccinate 50 percent of the population to stop it. Can you order people to take the vaccine?
5. Transportation. How do you shut down an airport?
6. How do you handle disagreement among scientists? What if different labs give different findings, depending upon who collected the items given to them?
7. How do we handle civil liberties and public safety?

Under HIPAA you have to be careful about reporting. With all the restrictions on privacy, can people from different agencies sit in a room and decide what to do? So how do you determine there is a terrorist factor in order to bring in the FBI as the lead agency? Or if the FBI, with its intelligence briefings, has information on a given attacking agency, can that be shared with the clinical people? Or do we have a situation where nobody can tell anybody anything?

**Mary Beth Buchanan,** U.S. Attorney, Western District of Pennsylvania[2]

When something like this happens, there are many questions at the outset. We don't know whether it is a matter for the public health service and the medical community or something for a joint task force on terrorism. Shortly after 9/11, the U.S. attorney general told every one of the 94 U.S. attorney offices in the country to put together an antiterrorism task force—these are now known as Anti-Terrorism Advisory Councils (ATAC). Each ATAC comprises representatives from federal, state, and local law enforcement agencies and other agencies whose duties are not strictly law enforcement but whose input is important in the fight against terrorism. Each month the ATAC meets to discuss a wide array of issues, such as communication among agencies at all levels of government, and how best to enhance information flow among local, state, and federal agencies and between governmental agencies and the general public.

I want to draw on our experience with the anthrax scare. We had people terrified even to go out of the house. Sometimes an officer would just walk in and ask: "Where is the letter with the leaking powder?"—the worst thing that could have been done. We wanted people to call the local police, who would pick up any suspicious material, take it to a tractor-trailer we had in the North Park, where items were catalogued and then sent to the state laboratory in Lionsville. We had 12,000 items delivered to us, including things like hamburger buns!

In the fictional scenario presented, the U.S. attorney's office would work closely with public health officials and law enforcement officials at all levels of government. The primary concern would be public safety. At the earliest possible opportunity, the U.S. attorney would coordinate with the FBI's joint terrorism task forces and other federal, state, and local agencies to determine if this was a possible terrorist act or a criminal act. The ATAC representatives would be utilized to assist in gathering information and evidence and disseminating information.

For us, an emergency declaration from the governor is irrelevant. We would go immediately into action to gather as much information as possible. The chickens on that farm—where did the farmer get them, from inside or outside the state? Citizens and officials should notify us; better to receive three calls than for each one to think the other guy had called.

We would suggest that people contact law enforcement officials in their area—police, county police—or the general telephone number for the FBI in their area.

**Eugene LaFavor,** Counterterrorism Specialist, Department of Public Safety, Lycoming County

My real concern from the scenario is from the aspect of isolation and quarantine. Who has the authority? We don't have it. Our laws are still 1926, not updated.

Suppose there is a quarantine. Who enforces it? Would you have to have a hearing? But who is going to take the equipment, such as a video recorder, to some place under quarantine? The only people who can resolve this are at the state level. We have to start thinking as a state, not a commonwealth.

Suppose someone is exposed, but not ill. Can that person go to work anyway? Someone has chest pains, what do you do? Or a person gets tired of being isolated and walks to the grocery store to buy milk? You worry about the grocery store.

We are one of seven counties in the North Central Counterterrorism Task Force. If any county were overburdened, the other counties' emergency operations centers would open to help. This task force also ties together all 11 hospitals in the region.

[2]With Mary Beth Buchanan as part of the telephone interview was Brian Stokan, Intelligence Research Specialist in her office.

We recently did a large exercise through PEMA. Unfortunately, PEMA sat on the [initial] report. So we went ahead in Lycoming County anyway and notified people.

**Michelle S. Davis,** Deputy Secretary for Health Planning and Assessment, Pennsylvania Department of Health

The epidemiology and community health staffs would take the lead with interviews, collecting and analyzing data, and gathering information through NEDSS. All the hospitals are connected to NEDSS to report information on any of 60 reportable communicable diseases.

We would also distribute the information through our Health Alert Network, a Web-based communication network for health-care providers, emergency medical services, emergency management and other public health partners. We notify physicians, in particular, of emerging health conditions and then ask them to contact the department of health immediately by phone if they encounter patients with the identified symptomatology.

Quarantine? That decision would be made by Dr. Johnson [PA Department of Health Secretary Calvin B. Johnson] after notification of the Pennsylvania Emergency Management Agency (PEMA), PA Department of Agriculture, and PA Department of Environmental Protection. Dr. Johnson would then make a recommendation to the governor. Our legislative and policy staff would meet with the governor's legislative and policy staff to ensure that the proper communication protocols were implemented. All of this would happen quickly.

PEMA would get involved at this point due to its public safety and coordinating role at the county level. The PA Department of Health's Regional Emergency Medical Services Council would get involved due to the oversight and coordinating role they have with local EMS providers. EMS providers need regular updates on the precautions they need to take regarding their safety and the safety of their patients. That way in an emergency they are learning about new procedures and methodologies. We would be mobilizing everything at the same time. We would open up PEMA's EOC [Emergency Operations Center]. That would be my responsibility as deputy secretary.

The PA Department of Health follows the National Incident Management System protocol; thus all of the appropriate staff would be deployed, i.e., epidemiology, communicable disease, immunization, environmental health, and fiscal areas of responsibility. We learned a lot from the Chi-Chi's food-borne outbreak in Beaver County. We had to purchase immune globulin to immunize 10,000 people, which was an unplanned expenditure, which suggests that we need to work out having a pot of emergency money set aside. If we opened up the EOC for an extended period of time for a major incident, it would be around the clock, so we would have to have resources for people to sleep and to eat.

The media? We will give them the facts. We have people trained and prepared to do that, to avoid panic calls from the public.

**Philip Smith,** Special Agent/Weapons of Mass Destruction Coordinator, Federal Bureau of Investigation, Pittsburgh Division

Our involvement would depend upon what information was revealed. None of the [scenario] assumptions puts us into the picture. We wouldn't be involved unless there was a criminal act. Such criminal activity could be reported by a local emergency group or a county or state health department or the CDC (federal Centers for Disease Control in Atlanta). The state police, because they are well dispersed around the state, would be called first if there were an unusual patient inflow to hospitals, even before any criminal action was shown.

We would prefer being notified by the CDC because we are both federal agencies. We have FBI people stationed full time with the CDC. The "suspicious activity" listed in the scenario might help the CDC decide to bring in the FBI. In the meantime, we would be using our contacts around the country to see if there was anything like it happening elsewhere. In the Chi-Chi's affair we got notification and were ready to put a lot of people into it. Then we were notified that it was not criminal.

From the criminal standpoint, we'd like to go in immediately, such as to get information from the sick farmer. We could put 40 to 50 people into it out of the Pittsburgh office. But if we did, we'd have the competing interests from senators and from privacy groups. And we don't want to show up at a hospital with FBI jackets and create panic. Note: The health department can bring in law enforcement, such as to break down a door. The state always has this power, the federal government not always.

The Joint Terrorism Task Force can be a big help because it includes local people who may have insider information on the farmer and others involved. If we started focusing on an individual, we would say "an investigation has been launched."

One more unique thing—UPMC's Strategic Medical Initiative, a federally funded program to encourage the relationship among doctors, public health officials, and law enforcement. I think [terrorist] targets such as PennDOT and utility providers—gas companies, electric companies—are to be involved. As yet, however, it has not been adopted by the FBI.

**Evalyn Fisher,** Director of Plans, Pennsylvania Emergency Management Agency (PEMA)

If we saw that it was animals to humans, under State Regulation No. 11 we would pull together the EPA and the agriculture, game, and conservation departments and commissions. We would gauge the resources and notify the governor if hospitals were overwhelmed. We would put in motion EMAC (the Emergency Management Assistance Compact).

PEMA generally has the trigger role for having the governor declare an emergency, under which certain laws and regulations —liability, etc.—can be suspended. It would take a while to figure out just which laws and authorities would be suspended, such as liquor sales if there were a danger to crowd control.

For the media and the public, we would work through CENIC (the Commonwealth Emergency News and Information Center), which PEMA coordinates through the governor's office.

In a way, we are back to the days of civil defense. The agriculture department is working on developing an incident support team, including veterinarians and lab specialists—the next step from the old days of civil defense to hazmat, then urban search and rescue.

**George Leonhardt,** President and CEO, Bradford Regional Medical Center, Bradford, PA

The things we would do immediately:

1. Talk to people internally here to get emergency department, chief of medicine, and section control staff to make initial decisions, such as designating a couple of rooms for affected persons. Stop elective admissions and elective surgery. Use type A vaccine? Who gets priority?
2. Contact the PA Department of Health. We need to have our press people working cooperatively with the department of health and counterterrorism agencies to prevent panic. The touchiest thing is dealing with and communicating with the public in a way that educates as opposed to fueling the panic.
3. Be ready to talk with the press at least a couple of times a day. We need to know what to say. Not to hide information, but to make it consistent with what's coming out from other agencies.
4. Our professionals know what to do. But the task is to get resources to them. We have had a series of meetings with regional response groups and lines of communication are starting to open up much better. People want to know, "What is the regional plan?" We wouldn't have run into this kind of cooperation before 9/11. Every professional now knows: "I could find myself in that situation."

There are public health statutes that allow organizations to stop someone, to institute quarantine. The public has a hard time understanding that.

We anticipate closing off areas. But not the whole campus. We would segregate people and segregate personnel who would be dealing with cases.

Vaccine for such cases is in short supply. We would need to do triage. Start with vaccinating staff. Triage on the basis of seriousness of symptoms and level of exposure. Try to form a circle of vaccinated people around the groups that have been exposed. That way you prevent them from spreading the disease to the larger society. Trouble is that if someone shows up outside the circle, you have to start another circle.

The public health infrastructure in Pennsylvania has been allowed to deteriorate. We have one public health nurse for our four-county region, spending just one day every two weeks in Bradford.

**Dennis C. Wolff,** Secretary of Agriculture, Pennsylvania[3]

Avian Influenza (AI) is a disease mainly of poultry, although some serotypes can be found in other animal species and in humans. We would most likely detect it first in poultry, before it would show up in humans. The Pennsylvania Department of Agriculture (PDA) would strive to quickly identify the agent through laboratory testing, locate infected and exposed animals through epidemiological studies, quarantine those animals, and control/eliminate the agent as rapidly as possible. Our responsibility includes quarantine of animals, and the health department is responsible if there must be quarantine for people, as in cases of zoonotic disease. Throughout, we would be working with partner agencies and have plans in place for that purpose.

During an outbreak of animal disease, samples are collected from animals on quarantined farms and from farms in the surrounding area for testing at diagnostic laboratories. In the case of AI, these samples may include blood and/or tracheal or cloacal swabs. Swabs are also taken from a certain number of dead birds from these farms in an attempt to detect virus if it is present. There are different serotypes of AI, and some are more pathogenic than others. Although there can be high avian mortality from AI, in some cases birds can be infectious and not show clinical signs of disease.

If there were reason to suspect that the serotype of AI under investigation might be pathogenic to humans, PDA field and laboratory staff would need to increase the level of PPE [personal protective equipment], which would include respirators. The health department has suggested that we have these respirators on hand due to the H5N1 scare in the Pacific Rim.

Regarding vaccination of poultry for AI, the USDA [U.S. Department of Agriculture] regulates the use of AI vaccine because of trade implications. In some cases, states may request that they be permitted to vaccinate to control an outbreak. Note: the health department is NOT responsible for [animal] vaccine.

During our planning for response to a widespread disease outbreak in PA livestock or poultry, we have met with PEMA and other agencies to discuss plans for integrated response. Other agencies will be able to assist us by procuring resources needed for quarantine enforcement, depopulation, cleanup, disposal, and so on. We have met with the Third Civil Support Team,

[3]With Dennis Wolff as part of the telephone interview was Nan Hanshaw-Roberts, DVM, animal and poultry health manager in the Bureau of Animal Health & Diagnostic Services, Pennsylvania Department of Agriculture.

which is a military team trained in advanced Personal Protective Equipment (PPE), that would be able to help us in an emergency if necessary. In the event of outbreaks of disease, the state veterinarian promptly notifies the state veterinarians in surrounding states. Updated information is shared daily.

When dealing with the media, we utilize the Incident Command System and have a few people who will act as spokespersons.

Regarding the quarantine procedure, an initial quarantine is placed on the index premises, and additional farms may be quarantined as more information becomes available. Most cases of AI are found during regular surveillance testing. If a positive is found, that farm is quarantined, meaning no birds, manure, products, or equipment are moved off the property until they meet requirements for release of quarantine. Other poultry premises within a quarantine zone—usually two miles, but may vary depending on circumstances—are also required to do surveillance testing. A larger, enhanced surveillance zone, usually about five miles, is drawn, and poultry in this zone must be tested to move. All poultry exhibits and markets would be temporarily closed within the immediate quarantine zone until additional information had been gathered.

**Bruce Dixon,** MD, Director,
Allegheny County Health Department

We are in a support role to the state health department. If this were taking place in a rural area nearby, we would volunteer but not interpose. We would first make our epidemiologists available, and nurses if necessary. We would provide staff to immunize people, providing personnel for multiple sites. We learned from the Chi-Chi's incident in Beaver County and from our own flu experience that people shouldn't have to travel far for immunization. We have some stocks available, more than they have in surrounding counties. We have arrangements with Cardinal, a major pharmaceutical distribution company, to furnish extra stocks if needed.

The sequence is disease recognition, surveillance, treatment. Lab results may take 48 hours. Then you can begin to connect the dots. The state should be aggressive in connecting the dots early.

If the disease were one that is spread person to person, we would be prepared to isolate and restrict movements of people. We would instruct people to remain in their homes. We would use the wing of a hospital for the most extreme cases.

Communication, not only among health workers but to the community at large, is essential, to emphasize that some people will get screened but others shouldn't get panicky. We remember when Flight 93 crashed over in Somerset County and people began evacuating the downtown buildings here in Pittsburgh. There were traffic jams on the major arteries. If some big, unfortunate incident had happened in Pittsburgh at that point, we would have been imperiled in getting stuff to the scene.

With this scenario, you are moving from a defined disease to something unknown. People don't want to talk about what they don't know. The hardest words in medicine are "I don't know."

We learned from the Chi-Chi's incident about the number of people needed in order to have an adequate and comprehensive response, for instance, just to maintain order, where you may have a lot of people coming to one place. We hadn't realized that. And we learned that we had underplayed the role of pharmacists in preparing vaccines and getting them to the field.

The truth is that there have been big gaps in our system in the past. Southwestern Pennsylvania is significantly understaffed. We have as many personnel in our Allegheny County office as they do in all of the 12 surrounding counties. Each county has a field office except Butler, which contracts with Butler Hospital for direct services.

We also need a specialized hazard lab in our part of the state. Getting material to the state laboratory in Lionsville and back takes too long, even by helicopter. This is different from the usual diagnostic lab. Because of 9/11, one is now in the works, to be built at our Arsenal [Pittsburgh] location at 40th and Penn. It is CDC sanctioned and is to be equipped with specialized diagnostic equipment that is not yet on the public market. The FBI could use the kind of evidence it would provide. We expect groundbreaking before winter in order to open early in 2006. Note: This will be important for districts in neighboring Ohio, West Virginia, and Maryland.

**Michael Louik,** President, American Civil Liberties Union (ACLU) of Pennsylvania; Pittsburgh lawyer

From a civil liberties point of view, here are the problems I see emerging:

1. How do you define a public health emergency? Ultimately, someone will be talking about the powers of government, its decisions, and its actions. Although government officials define it, they make mistakes. The mere fact that something is contagious may not be enough. There are lots of contagious diseases. If you start exercising extraordinary powers—such as with AIDS—there have to be clear standards as to what constitutes a public health emergency.
2. If a public health emergency is declared, such as by the governor, is there a way to challenge it, either administratively or through the courts? Will they be able to order vaccinations? Or even quarantine? Or order that names of contacts be reported? Note: We now have stricter federal rules, such as HIPAA.
3. There need to be checks and balances in law for the protection of rights. The ultimate check is the Constitution. If a constitutional right is involved, you can always go to court. But it usually takes a very high standard to declare something unconstitutional.

The second big issue is forced medical treatment. An individual can refuse treatment, even if refusal is life threatening. But if refusal threatens people around you, the courts may not permit you to walk around infecting others.

In an emergency like this, there will be vast numbers of people involved. You don't want a system bogged down in technicalities and limits.

What is needed is a legal services department to which people can turn with questions or concerns. This should combine providing information for people to get through the system with protections for the individual. "Yes, you have to comply." Or "Maybe you should go to court and challenge it."

What about stopping people from leaving or entering an area? You can do that across international borders. Recently when we were coming back from England, we were required to take off our boots for spraying and cleaning because of the mad cow problem. We did get them back.

In such cases, do you call a lawyer? It depends upon what's at stake. You can ask for a lawyer, but you may be sitting someplace for a long time. That's one of those places where lawyers can't do much.

Another issue: documenting personal health records. How much can be disclosed? Will insurance companies have access to your records? Say you are in perfect health, but your record shows that you lived or were working in an office within 10 miles of where 10,000 chickens were killed. Would you have to pay extra for your premium? Suppose you switched jobs. Could you be denied insurance in the new situation?

A question is whether the government should even be keeping those records. If so, what is a reasonable time to destroy them?

**D.A. Henderson,** MD, MPH, Resident Scholar, UPMC Center for Biosecurity, Baltimore

Suppose this scenario were to occur in which there were many serious respiratory infections detected and evident spread of virus from human to human, and a strain of H5N1 were isolated.

This would immediately represent a four-alarm international emergency. The state secretary of health and the governor would be expected to be notified immediately, and the message in turn transmitted within minutes to federal officials right up to the president and almost simultaneously to the World Health Organization and countries across the world.

You see, a world pandemic of influenza represents, potentially, one of the most serious threats of all to human health. Note that the 1918 swine influenza strain—called H1N1—swept across the world in the space of one year, killing 550,000 Americans and upwards of 20 million people around the world. Concern that another new strain of influenza might emerge has worried public health and medical personnel ever since.

At present, there is grave concern about a new strain of influenza —H5N1—that has become endemic in many countries of South Asia. It is highly lethal to chickens and is being spread by wild birds. Tens of millions of chickens have been killed in efforts to block spread of the disease, but with only limited success. The first cases were detected in Hong Kong in 1997. Hundreds of thousands of chickens were killed and, for a time, it appeared that further spread of the disease had been stopped. It hadn't. This past winter, cases were found in many countries of South Asia. Of major concern is the fact that some 35 cases—of which 23 died—have occurred among persons who have been heavily exposed to chickens.

Human-to-human transmission does not appear to have occurred, although there are questions about two of the cases. The great concern is that the virus might undergo genetic change, resulting in its ability to spread from human to human, possibly sustaining the high mortality rate so far witnessed. The 1918 flu pandemic, serious as it was, killed only one or two percent of its victims. Thus, the [Pitt] scenario is precisely the one public health people around the world fear the most and that could indeed be a doomsday scenario.

All persons would be fully susceptible to this virus irrespective of what previous experience they may have had with other strains of influenza. None of our existing vaccines would provide any protection. Priority research efforts are now being directed to producing a vaccine to protect against this virus, and some progress is being made. But, at best, limited supplies of the vaccine would not begin to become available until year's end and, certainly, not enough to protect all in the population until some time next year [2005]. Some reduction in the severity of disease might be achieved by anti-viral drugs specific for flu. But supplies are very limited.

What could be done at the local level? Closing of all major sites where people might congregate—including such places as schools, churches, and sports arenas—might serve to reduce somewhat the rapidity of disease spread. But it is probable that eventually the same numbers would experience disease were nothing to be done. It would only be a matter of time. Hand washing might also deter its spread to some degree. Masks would be essentially useless.

Emergency rooms and hospitals would be flooded with patients to the extent that care of any sort would be possible only for a limited proportion of those who would be ill. Among those most heavily infected would be healthcare personnel, a fact that would further limit the amount of care that could be given. Most of the serious cases would be experiencing pneumonia, caused in some by bacterial infection. These could benefit from antibiotic administration. However, most cases would be the result of the virus infection alone and these would not benefit from antibiotics.

Many patients would normally require and benefit from ventilator assistance. But available ventilators are few in number, and there are only small numbers of medical care personnel trained in their use.

## Conclusion

The preceding interviews clearly demonstrate that disconnects remain in Pennsylvania's health emergency planning and response systems. The next section will analyze these gaps in four specific areas: governmental powers, civil liberties, information sharing between agencies, and information dissemination to the public.

# SECTION 3—DISCONNECTS IN PENNSYLVANIA PUBLIC HEALTH POLICY

*by Margaret Potter*

The preceding section of this status report summarizes interviews with 19 individuals who represent government agencies, academia, and private health care throughout the Commonwealth of Pennsylvania. This section presents an analysis of those interviews.

This analysis is guided by the interviewees themselves. They attended a roundtable at the University of Pittsburgh on September 10, 2004, where they compared views and produced a list of high-priority concerns. The staff of this project later consolidated that list into four major issue areas:

- gaps or uncertainties about governmental powers,
- unfounded or uncertain expectations for privacy and personal rights,
- interagency dependence on the products of investigation, and
- concerns about communicating with the public.

This section takes information and insight from the interviews to illustrate the legal and policy concerns within each major issue set. As shown here, the interviewees' responses to the fictional scenario sharpen the focus for further consideration by state policymakers.

## 1. Governmental Powers

The question explored here is "How do emergency powers differ and intersect among levels of government (municipal, county, and state) as well as among various agencies?" The interviews reveal several areas in which officials and experts hold inconsistent views or in which knowledge about disaster response in one location leaves uncertainty in another.

### Quarantine

The question of who has authority to order quarantine was answered or assumed differently among interviewees. A county emergency management coordinator was unsure of who had such authority and was reluctant to "shut down the fair." A county commissioner said that the county did not have such authority. A local health department claimed authority to determine that quarantine is necessary and would seek a court order, whereas the secretary of health would recommend that the governor order it. The secretary of agriculture claimed authority to order quarantine but did not mention seeking a court order. The civil rights attorney wondered whether a person would have access to courts to challenge a quarantine, if rights were felt to be violated. The common pleas judge wondered whether "courts would have facilities and equipment (masks?) to stay open in an emergency." The state police captain said troopers would "urge people to stay where they are"—apparently avoiding ordering them to do so.

The answer to who has authority and/or capability to enforce a quarantine was especially unclear. At the county level, neither health department nor emergency management representatives knew. The SMI physician questioned how "arrest" of violators could be done. Only the agriculture secretary was specific about this issue—probably because his was the only agency with actual recent quarantine experience. He thought that agencies (e.g., the Third Civil Support Team) would be brought in to enforce quarantine if an outbreak were widespread.

This uncertainty leads to several questions:

- Is a court order required for an imposition of quarantine, or does the health department (state or local) simply order it?
- Does a quarantine ordered or requested by the department of agriculture raise any of the same procedural or substantive issues as one requested by the department of health?
- Across the commonwealth, how will the judicial system and legal professionals respond to the request for court-ordered isolation or quarantine?
- Across the commonwealth, if voluntary compliance is unsuccessful, who will be responsible for enforcement? What degree of force can be used to enforce compliance with a quarantine order?
- Would a quarantine declared in a rural county by the agriculture department be recognized in an adjacent urban county or municipality by health authorities there? Given that potentially infected animals or persons may already have traveled to another jurisdiction, it is important to know how the quarantine order would be communicated to places where the authority of the agriculture department is unfamiliar.
- Would the secretary of health recognize and act to enforce (or amplify across the commonwealth) a quarantine or emergency declaration by a local health department director or local health officer?
- What difference is there in quarantine authority between a county with and a county without a local health department?

- How is enforcement of quarantine coordinated between public health and veterinary authorities and between these authorities and law enforcement units?

## State of Emergency or State of Disaster

Interviewees believed that the power to declare an emergency or a disaster rests with the governor and with county commissioners. But they were unclear about the consequences of a county-level declaration, about whether it included any quarantine power, and about what actual powers a county could exercise before the governor's declaration.

A county emergency management coordinator "would urge the county commissioners to declare a disaster if two or more municipalities were affected." The county commissioner said that the county could issue "an emergency declaration" but that she would seek advice from the county emergency management director to decide whether to cancel fairs and festivals where infected animals might be. The common pleas judge called knowledge about powers and responsibilities of courts in the absence of the governor's emergency declaration an "education gap" for judges and lawyers. The PEMA official said that her agency "has the trigger role for having the governor declare an emergency." But she (inadvertently?) did not mention the department of health as being among the agencies brought together to respond under State Regulation No. 11—thus suggesting that quarantine power was not within the scope of emergency response. The civil rights attorney wanted to know the definition of "a public health emergency" and thought that it would be declared by the governor. The physician/infectious-disease expert believed that a viral infection of the kind suspected in this fictional scenario would be a "four-alarm international emergency," triggering notification "to the World Health Organization and countries across the world," but he did not tie this to emergency or disaster declarations.

Therefore, some of the policy and legal questions that appear to be in need of answers include

- Who can/should declare a state of emergency, and on what bases?
- Is there a difference in emergency powers depending on whether they are invoked through PEMA or the PA DOH?
- How do quarantine power and enforcement relate to a declaration of emergency: Are they entirely separate, or are they interdependent?

## The Role of Federal Agencies

The interviewees discussed various interactions with federal agencies but were not specific about what priority these interactions should have in relation to interactions with state-level agencies. The local health officer said he would contact the CDC in Atlanta along with the local hospital and the state health department. The FBI special agent would "prefer being notified by the CDC"—rather than by state or local agencies. The agriculture secretary indicated that "the USDA [the U.S. Department of Agriculture] regulates the use of AI vaccine" and suggested that the state would have to seek the USDA's permission to use this vaccine in such an outbreak. The U.S. attorney said that for her investigative activities, "an emergency declaration from the governor is irrelevant." But the FBI special agent said that federal law enforcement doesn't always have as much power in a health-related emergency as does the state health department.

These statements raise questions about what actual powers and what merely advisory roles these federal agencies can exercise within the state and, further, how they are to coordinate with state agencies and officials. Open questions are

- What should be the reporting lines and priorities among local public health agencies, the state health department, and the CDC?
- How should state and local authorities assure appropriate and timely involvement by—and coordination with—federal agencies?

## 2. Civil Liberties

Here, the interviewees were concerned about the implications of government exercising emergency powers. When officials act to contain the spread of a potentially deadly infection to protect whole communities and populations, individuals may be subject to unwanted treatment, or subject to restrictions on personal freedom, or unable to obtain care that is needed or desired. For the courts, deciding on individuals' challenges to the decisions of government agencies in the midst of an outbreak could be very difficult.

### Unwanted Treatment

Individuals or groups might resist unwanted medical treatment, such as vaccinations, as well as orders to remain in a quarantined area. The judge questioned whether the well-established right to refuse medical treatment would stand so far as to permit someone to "walk around infecting others." He wondered whether the courts could order treatment, search homes for infected people, and restrict private transportation.

### Care for Individuals

The interviews showed that experts had concerns about providing proper care for all in need while still containing the spread of infection and using scarce resources wisely. The infectious-disease expert said that, in a major outbreak, "care of any sort would be possible only for a limited proportion of those who would be ill." The hospital president spoke of "designating rooms for affected persons," of closing off certain hospital areas, and of segregating infected patients and the staff who were dealing with them. He noted that patients would have to be triaged "on the basis of seriousness of symptoms and level of exposure"—implying that some with lesser needs might not receive immediate care. He pointed out that healthcare personnel would get top priority for vaccine in short supply. Some individuals might have different rights and expectations from those of the population at large, such as defendants in jail, children whose parents are ill, those in foster care, and others who are dependent, disabled, or medically incompetent. Some questions include

- Who is legally responsible for ensuring proper care and support for individuals under a quarantine order?
- Are healthcare professionals and organizations held to providing the same standards of care in an emergency as in normal situations?
- Do convicts and/or defendants awaiting trial in prisons have different or lesser rights than other individuals?

### Privacy Rights

The interviewees highlighted the need to clarify when privacy rights can be superseded or suspended by a declaration of emergency or disaster or quarantine. The civil rights attorney noted that "there are lots of contagious diseases" but that clear laws

need to define precisely when an outbreak rises to the level of a public health emergency. He felt that even if government could use personal medical records in an emergency, it should not be permitted to keep them later on. The state bar association's privacy attorney believed that the federal privacy law (HIPAA or Health Insurance Portability and Accountability Act) can be a good bridge between the public and private sectors, but also asserted that responsible officials and leaders don't realize this. She was certain that privacy arguments would not prevail in the case of a serious outbreak. But the SMI physician was concerned that various government agencies would be unable to share important information due to privacy restrictions. Some questions include

- When are the usual privacy laws and procedures to be suspended in a public health emergency, and who has authority to determine this and declare a suspension?
- When are privacy rights reinstated, so that a given piece of private information is no longer available to government decision makers?
- How should interagency communication during emergencies be established through appropriate policies and procedures?

### Access to Courts

One public health official said that his agency would seek a court order for a quarantine, and the common pleas judge noted the importance of courts remaining open and available in an emergency. But the judge was concerned about the "education gap" in lawyers' and judges' ability to handle such cases. He worried that courts and lawyers might be unprepared for the unique questions that would be brought to judges for a decision in an emergency.

## 3. Information Sharing among Agencies

The interviews raised questions about the need to share procedures and information among many government agencies and private medical organizations during the course of investigating and containing a major disease outbreak. Rapid response to the first signs of a serious outbreak requires early recognition of danger even before a particular disease is diagnosed, as well as rapid and reliable information sharing among local, state, and federal officials and between public-sector agencies and private-sector professionals.

### Recognizing and Reporting an Outbreak

Disease recognition is the first priority in response to such a scenario, according to the county health department director; he urged aggressive efforts by state officials to connect events and evidence across the state. The SMI physician noted that "avian flu is a lengthy lab affair." The bar association's privacy attorney said that symptoms rather than diagnoses would have to guide the response in the days before a laboratory diagnosis could be confirmed. She said that the disease-reporting database (NEDSS, or National Electronic Disease Surveillance System) should include symptoms, and it should be opened up to include emergency medical personnel as well as healthcare providers. However, the interviews did not indicate how state officials would communicate across the usual boundary between human health and veterinary health. The agriculture secretary was aware of the need to protect his staff when an avian virus could infect humans, but he did not specify what procedures or information sharing this virus would trigger. He stated only that the agriculture department's responsibility is for animals, whereas the health department's is for people.

- What powers does the PA DOH or a local health department director have to require reporting of a disease—or symptoms of a disease—that's not listed among the state's required reportable diseases?

### Information Sharing

Many of the interviewees acknowledged that information gathering and information sharing among medicine, law enforcement, first responders, and public health would be crucial. Law enforcement could have information about potentially illegal activities that could harm public health. Clinical medicine would be seeing symptoms (not yet a confirmed diagnosis), and public health agencies could use their authority to inspect property if they suspected that the property posed a public health emergency, or could seek a court order to permit the inspection with probable cause. First responders could be jeopardized personally by not being aware of potential threats at the scene and could even inadvertently spread disease. But the U.S. attorney noted that, at the outset of this scenario, it would be unclear whether the outbreak was "a matter for the public health service and the medical community or something for a antiterrorism task force." The FBI agent expressed a preference for receiving notification from the CDC —another federal agency—rather than from a state or local health agency. The bar association's privacy attorney was not sure that officials understood that federal privacy laws could facilitate, rather than impede, interagency communication in an emergency. So, it is clear that improved understanding and procedures for sharing information are needed. Some questions include

- What laws define the permissible scope and content of communication among law enforcement, clinical medicine, and public health authorities?
- What, if any, are the legal impediments to the sharing of information among law enforcement, public health, clinical medicine, and first responders?

## 4. Information Dissemination to the Public

The interview participants expressed concern for providing prompt, accurate, and consistent information to the public in an emergency. The county commissioner emphasized the need for a central point of contact for information given to the media. The city health officer said he would disseminate information via newspapers, radio, and TV. The hospital CEO said he needed to be "ready to talk with the press at least a couple of times a day," and this suggests the need for ongoing coordination of information among hospital leaders and other responsible individuals. The agriculture secretary noted having specified people to share information with the media, and emphasized the importance of "getting the information out immediately and having updates," and of coordinating with the health department. The county health department director said that poor communication with the public could actually impede an effective response, as suggested by traffic jams in downtown Pittsburgh on 9/11/01.

These observations suggest several legal issues:

- Are there legal obligations (as opposed to practical necessities) associated with sharing information and communicating the risk to the public during a quarantine, emergency, or disaster?
- How should the various agencies and levels of government coordinate their communications to the public?
- During a state of emergency, does any agency or official of state or local government have authority to prevent or to prescreen communications to the public from private entities (such as hospitals) for such reasons as to prevent panic or misinformation?

## Conclusion

The disconnects in public health policy expressed by interviewees and analyzed in this section raise specific emergency preparedness and public health policy issues on the federal, state, and local levels. Based on this analysis, the following two sections contain further descriptions of public health policy concerns on the federal and state levels that affect Pennsylvania's preparedness.

# SECTION 4—FEDERAL POLICIES ON STATE AND LOCAL PREPAREDNESS

*by Terry Miller*

Especially since 9/11, emergency preparedness managers and analysts have identified key federal policy issues relative to state and local preparedness. By and large, emergency-preparedness facilitators call for enhancing the ability of current institutions to respond more effectively and efficiently to emergency crises, including terrorist attacks.

Following is an overview of the most frequently identified public policy issues and areas where state legislators can work to lobby for better efficiencies and adherence to current commonwealth laws and policy directives for the future:

- **Amount of and uses of federal assistance:** Suggest that Congress increase levels of financial and technical assistance to states and localities to enhance their preparedness for emergencies and terrorist attacks. Since public safety is traditionally a state and local function, Congress may consider increasing assistance to states and localities so that in the course of an attack or emergency local resources will not be overwhelmed. Suggested categories of increased funding: 1) medical responder training and exercises, 2) first responder training and exercise, and 3) equipment for first responders.[4]
- **Range of eligible activities:** Suggest that Congress re-evaluate the range of eligible activities for which states and localities can utilize federal funds. If it is determined that states/localities need increased flexibility in funding, suggest consolidating current categorical funds into block grants. Block grants would provide improved flexibility and creativity in utilization of resources to address self-determined state/local needs. The range of eligible activities currently includes 1) emergency management and planning, 2) training and equipment for first responders, 3) training in response to weapons of mass destruction and hazardous materials, 4) law enforcement, and 5) public health and the medical community.[5]
- **Coordination of federal assistance:** Grants and training programs for first responders are offered by multiple federal agencies, which leads to confusion among state and local officials attempting to secure federal funds. In addition, state and local officials report that the application process is cumbersome and inconsistent among federal agencies.[6]
- **Preparedness standards:** Preparedness standards are specified activities and levels of competence that state and local responders are encouraged to achieve and maintain. Existing standards, assessments, and accreditation processes include *The National Fire Protection Association's Code 1600; FEMA's Capability Assessment for Readiness,* and the *Emergency Management Accreditation Program (EMAP).*[7] Some emergency managers and analysts have encouraged Congress to support nationwide standards, which they believe could better prepare states and localities not only for terrorist attacks but for all emergencies.
- **Preparedness of the medical community.** The need exists to encourage Congress to improve the preparedness of public health agencies and hospitals. As in the case of first responders such as firefighters, emergency medical technicians (EMTs), and law enforcement personnel, there is a call for improvements in the existing public health infrastructure to prepare not only for acts of terrorism but also for more conventional public emergencies such as influenza epidemics.[8] For example, state and local recipients of federal grants could be required to include public health agencies, hospitals, and other medical institutions in emergency planning. In addition, as regards institutional standards, hospitals could agree to maintain standardized levels of resources and capabilities for handling mass casualties. Support from federal agencies could require adherence to such standards.
- **Mutual aid compacts:** MACs are agreements among different units of government to provide assistance in the event that an emergency overwhelms one government's capacity to respond. Intrajurisdictional compacts can enhance preparedness by pooling resources of several governments and overcoming legal and administrative problems created by multijurisdictional entities.[9] Historically, state and local governments actively participate in compacts, so this has not been viewed as a gap in federal policy; however, some observers have urged Congress to support "regional" and "interstate" compacts and to encourage states and localities to formalize and update their compacts and to test them in training exercises.[10]
- **Joint training exercises:** Joint trainings can improve emergency preparedness by encouraging responders from different levels of government and different agencies to become familiar with one another's capacities and practices. The After Action Report for the 1995 Oklahoma City bombing offers evidence of the importance of joint training

[4] Office of Management and Budget, *Annual Report to Congress on Combating Terrorism*, FY 2001 (Washington: 2001), 21-24.

[5] For a listing of existing programs, see CRS Report RL 31227, *Terrorism Preparedness: A Catalog of Federal Assistance Programs*, coordinated by Ben Canada.

[6] Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction, *Third Annual Report to the President and the Congress* (Washington: December 15, 2001), 10.

[7] CRS Report for Congress, *State and Local Preparedness for Terrorism: Policy Issues and Options* (Washington: February 5, 2002), CRS-12.

[8] Ibid., CRS-14.

[9] William L. Waugh Jr., *Terrorism and Emergency Management* (New York: Marcel Dekker, Inc., 1990), pp. 22-23.

[10] CRS Report for Congress, *State and Local Preparedness for Terrorism: Policy Issues and Options* (Washington: February 5, 2002), CRS-16.

by noting that the response effort was initially weakened by the lack of coordination and communications among the responding local, state, and federal agencies.[11] While there have been a number of state-level terrorism preparedness exercises undertaken by FEMA, the U.S. Department of Justice and others—table top exercises, full scale response exercises, and Top Officials (TOPOFFs)—some emergency managers and analysts believe the federal government does not coordinate and fund enough joint training exercises, leaving a gap in federal policy. The Gilmore Commission has encouraged Congress to instruct FEMA to coordinate more joint exercises and to provide more funding to states and localities to fund exercises.[12]

- **Communication infrastructure and other equipment:** According to emergency managers and analysts, the lack of policy on emergency communications infrastructure is a significant issue in federal policy.[13] Observers have stated that an interoperable communications infrastructure—a system that may be utilized by multiple jurisdictions—is one of the most critical equipment needs in emergency response preparedness.[14]

In addition, After Action Reports from the 1993 World Trade Center bombing and the 1995 Oklahoma City bombing recommend that states and localities obtain backup communication systems, should the main system fail.[15]

Finally, a critical component of establishing and expanding programs to combat terrorism is an analytically sound threat and risk assessment, using valid inputs from the intelligence community and other agencies to ensure that the most useful equipment is purchased and utilized in an actual emergency.

Concerning "equipment standards," the GAO refers to an FBI-directed commission report that developed a list of standardized equipment for response to weapons of mass destruction (WMD) incidents that is intended to promote standardization among responders at all levels of government.[16]

## Conclusion

The terrorist attacks of September 11, 2001, have prompted policymakers at all levels of government to consider how to prepare for possible future attacks. As they seek ways to enhance existing emergency response institutions' plans and their capacity to address emergencies, Congress, and policymakers at all levels of government, have a wide range of policy options to consider.

# SECTION 5—PENNSYLVANIA PREPAREDNESS POLICY ISSUES

*by Tyler Gourley*

Since September 11, 2001, states have been forced as never before to consider essential issues related to local emergency preparedness. Unexpected disasters and attacks could affect any area of the country at any time.

New institutions were needed and existing institutions had to be transformed into more effective managers of the public welfare. Pennsylvania policymakers had to work within the federal framework but also pursue innovative strategies of homeland security. They had to learn lessons from New York City and our own Somerset County. The recent Hepatitis A outbreak in Beaver County provided a further test of this state's reform efforts.

Of course, the state is better prepared than it was pre-9/11, but many gaps remain. What are the obstacles to reforming our current system? What lessons can be learned from the efforts of other states? What types of legislative and executive actions are needed? The legislature, governor, and other policymakers must address a wide range of policy issues to ensure efficient detection and response to a future emergency. The following goals have been identified:

- **Enhanced public health resources:** An overall deterioration of the state's public health system has yet to spur rejuvenation. With lower per capita numbers of personnel than other states, Pennsylvania continues to suffer from limited public health staffing—some rural counties even lack central health departments. In a situation larger in scope than the Hepatitis A outbreak, public health officials would be stretched to the limit. The state would have great difficulty in fulfilling its citizens' expectations for effective care.[17] Section 1 of this status report delineates more specifically the current resources and organization of Pennsylvania's preparedness infrastructure.

[11] Oklahoma Department of Civil Emergency Management, *After Action Report, Alfred P. Murrah Federal Building Bombing: Lessons Learned* (Oklahoma City: July 1996). Available at http://www.onenet.net/~odcem/archives/fema/1048/aar-contrib.htm.

[12] Gilmore Commission, *Third Annual Report*, 18-21. The Gilmore Commission is formally known as the Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction. The name comes from the name of the chair, former Governor James Gilmore of Virginia. The commission is charged with assessing the capabilities of federal, state, and local governments for responding to terrorist incidents involving weapons of mass destruction. Congress authorized the commission in Section 1405 of the National Defense Authorization Act for Fiscal Year 1999 (P.L. 105-261).

[13] CRS Report for Congress, *State and Local Preparedness for Terrorism: Policy Issues and Options* (Washington: February 5, 2002), CRS-20.

[14] Ibid., CRS-20.

[15] See U.S. Fire Administration, *The World Trade Center Bombing: Report and Analysis*, p. 100; and Oklahoma Department of Civil Emergency Management, *After Action Report…Lessons Learned*.

[16] U.S. General Accounting Office, *Combating Terrorism: Analysis of Potential Emergency Response Equipment and Sustainment Costs*, GAO report GAO/NSIAD-99-151 (Washington: GPO, June 1999), 4.

[17] Gebbie, Kristine. "Lack of Public Health Workers Puts All Pennsylvanians At Risk." *Philadelphia Inquirer.* January 8, 2004. Available online at www.philly.com/mld/inquirer/news/opinion/local2/7658714.htm.


- **Clear delineation of governmental powers:** It is essential that emergency powers be clearly allocated to certain offices/agencies, both between federal and state governments and within states. This report's analysis of interviewees' concerns makes clear that ambiguities remain in this area. Who can declare an emergency? What powers are available to the various governments before and after such a declaration? Who holds the power to declare quarantine? Who can enforce that quarantine? The governor in Pennsylvania is essential to this process. Which guidelines should he use to determine whether a state of emergency exists? The legislature has to determine the best possible allocation of existing powers. Also, is there a need for additional governmental powers in these situations?
- **Effective communication among agencies:** Most of those interviewed for this status report thought their own agency well-prepared for possible disasters. Consistently, though, state policymakers are less sure of their connections to what others are doing. Information sharing is essential. The question is how best to accomplish that end. What official mechanisms of communication need to be adopted by the state government? How do HIPAA and the USA PATRIOT Act affect this sharing? General information sharing in non-emergency periods must improve so that it can be expanded even more in times of emergency.
- **Improved regional communication:** Pennsylvania has organized a fairly effective system of regional preparedness task forces. However, this system may have erected artificial barriers to cooperation for counties on the edges of several task forces. Working across task force borders needs to be supported. Cross-state partnerships and preparedness for border counties must be enhanced as well. Emergencies do not respect political boundaries, whether between counties, task forces, or states.
- **Information dissemination to the public and the media:** Emergency responders should speak with a clear voice; extreme multiplicity of voices is to be avoided. Panic and rumors can result from mixed or unclear messages. Whose responsibility is it to keep both the public and the media accurately informed? How can county officials easily gain radio or TV access to relay information?
- **Establishment of clear legal procedures:** Pennsylvania lacks a specific legal apparatus to deal with civil liberties questions that are bound to arise under emergency and quarantine situations. Federal courts are often too far away, and therefore state judges and lawyers must be directed by the state government in dealing with such questions. Gaps in the existing legal code need to be bridged. The Center for Law and the Public's Health at Johns Hopkins and Georgetown Universities formulated the Model State Emergency Health Powers Act (MSEHPA) to address many of these gaps in states' legislation. A bill based on the MSEHPA has not yet been adopted in Pennsylvania. Whether through this particular legislation or other action, Pennsylvania must meet the severe need for a legal infrastructure that will ensure a fair emergency engagement for all parties involved.
- **Larger surge capacities:** Recent situations have clearly demonstrated the monetary and human expense to localities during emergencies. Counties and municipalities often simply lack the financial and personnel reserves to confront the situation. The state should energetically pursue increased emergency surge capacities for financial resources, public health personnel, and hospitals in times of need.

## Conclusion

Through these 19 interviews, a roundtable discussion, and subsequent analysis, specific gaps and ambiguities in public health emergency preparedness have been identified. The corresponding state and federal policy implications presented here and in the preceding section document concrete problem areas that Pennsylvania must address in order to be adequately prepared for any emergency. It can be hoped that this status report will serve as an impetus for further dialogue and reform concerning public health emergency preparedness policy in this state.

# SECTION 6—EMERGENCY PLANNING AND RESPONSE AGENCIES

*by Tyler Gourley*

## Local/County

### Allegheny County Health Department

Bruce Dixon, Director
Web site: www.achd.net
Phone: 412-687-ACHD

Local health departments, of which the Allegheny County Health Department is an example, strive to promote individual and community wellness and to protect the public from the harmful effects of chemical, biological, and physical hazards in the environment.

## State

### Office of the Governor

Edward G. Rendell, Governor
Web site: www.governor.state.pa.us
Phone: 717-787-2500

The governor of Pennsylvania is responsible for the safety of all Pennsylvanians in a public health emergency. Only he can declare a statewide emergency and enforce quarantine.

### Pennsylvania Department of Agriculture

Dennis C. Wolff, Secretary
Web site: www.agriculture.state.pa.us
Phone: 717-787-4737

The Pennsylvania Department of Agriculture encourages, protects, and promotes agriculture and related industries throughout the commonwealth. This department has jurisdiction and responsibility in situations and emergencies involving animal disease (e.g., avian flu, mad cow disease).

### Pennsylvania Department of Environmental Protection

Kathleen A. McGinty, Secretary
Web site: www.dep.state.pa.us/dep/emergency/response/role.htm
Phone: 412-442-4000 (Southwest PA Regional Office)

The Pennsylvania Department of Environmental Protection (DEP) has been working closely with the Pennsylvania Emergency Management Agency (PEMA) and other state agencies to plan for domestic preparedness since 1996. The DEP has appointed two nuclear, biological, and chemical (NBC) officers to coordinate activities with PEMA.

### Pennsylvania Department of Health

Calvin Johnson, Secretary
Web site: www.dsf.health.state.pa.us/health/cwp/view.asp?a=171&q=229813
Phone: 1-877-724-3258

The Pennsylvania Department of Health has the duty and power to protect the health of all Pennsylvanians. It has authority to enforce all statutes pertaining to public health for the prevention and suppression of disease and injury. The department also works closely with local health agencies in cities, counties, and municipalities.

### Pennsylvania Office of Attorney General

Tom Corbett, Attorney General
Web site: www.attorneygeneral.gov
Phone: 717-787-3391

The state constitution provides that the attorney general shall be the chief law enforcement officer of the commonwealth and shall exercise such powers and perform such duties as may be imposed by law, including in the area of public health.

### Pennsylvania Office of Homeland Security

Jonathan A. Duecker, Director
Web site: www.homelandsecurity.state.pa.us
Phone: 1-888-292-1919

Pennsylvania's Office of Homeland Security acts as a coordinating entity among the many federal and state agencies dealing with the prevention of and response to possible terrorist activity within the state.

### Pennsylvania Emergency Management Agency

Adrian R. King Jr., Director
Web site: www.pema.state.pa.us
Phone: 717-651-2007

The Pennsylvania Emergency Management Agency coordinates the response of state agencies, including the Office of the State Fire Commissioner and the Office of Homeland Security, to support county and local governments in the areas of civil defense,

disaster mitigation and preparedness, planning, and response to and recovery from man-made or natural disasters. Each county in Pennsylvania has an Emergency Management Agency Coordinator.

### Pennsylvania State Police

Jeffrey B. Miller, Commissioner
Web site: www.psp.state.pa.us
Phone: 1-888-292-1919 (Terrorism Tip Line)

The Pennsylvania State Police has over 4,000 officers throughout the state, giving it a uniquely useful position in the case of a terrorist or public health emergency.

### Pennsylvania's Unified Judicial System

Web site: www.courts.state.pa.us (Includes links to all state courts)

As one of three equal and independent branches of state government, Pennsylvania's Unified Judicial System plays a crucial role in preserving the rule of law and guaranteeing the rights and liberties of citizens. It does so by fairly resolving disputes brought before juries and judges as prescribed by law and by administering all aspects of the judicial process consistent with provisions of the Constitutions of the United States of America and the Commonwealth of Pennsylvania.

## Federal

### Federal Bureau of Investigation

Philip Smith, Special Agent, Pittsburgh Division
Web site: www.fbi.gov
Phone: 412-432-4000

### Federal Emergency Management Agency

Web site: www.fema.gov

The Federal Emergency Management Agency—a former independent agency that became part of the new U.S. Department of Homeland Security in March 2003—is responsible for responding to, planning for, recovering from, and mitigating against disasters.

### U.S. Attorney for the Western District of Pennsylvania

Mary Beth Buchanan, U.S. Attorney
Web site: www.usdoj.gov/usao/paw
Phone: 412-644-3500

### U.S. Centers for Disease Control and Prevention

Web site: www.bt.cdc.gov
(Emergency Preparedness and Response)
Phone Hotline: 1-888-246-2675

Component agency of the U.S. Department of Health and Human Services

### U.S. Department of Agriculture

Web site: www.usda.gov

### U.S. Department of Health and Human Services

Web site: www.hhs.gov/emergency/index.shtml
(Disasters and Emergencies)

Includes Secretary's Council on Public Health Preparedness

### U.S. Department of Homeland Security

Web site: www.dhs.gov/dhspublic/theme_home2.jsp
(Emergencies and Disasters)

The U.S. Department of Homeland Security has primary responsibility for ensuring that emergency response professionals are prepared for any situation. This will entail providing a coordinated, comprehensive federal response to any large-scale crisis and mounting a swift and effective recovery effort.

### U.S. Department of Justice

Web site: www.usdoj.gov/ag/terrorismaftermath.html
(Terrorist Attack and Emergency Planning Information)

## International

### World Health Organization

Web site: www.who.int/topics/emergencies/en (Emergencies)

## Nongovernmental Organizations

### American Civil Liberties Union of Pennsylvania

Web site: www.aclupa.org
Phone: 412-681-7736 (Pittsburgh Office)

Through advocacy, education, and litigation, ACLU's attorneys, advocates, and volunteers work to preserve and promote civil liberties, including freedom of speech and equal treatment under the law—even during times of emergency.

### American Red Cross

Web site: www.redcross.org

### Center for Public Health Preparedness

Margaret A. Potter, Principal Investigator
Web site: www.cphp.pitt.edu/upcphp
Phone: 412-383-2400

The University of Pittsburgh Center for Public Health Preparedness (UPCPHP) trains public health professionals, including professionals in related organizations, to respond to bioterrorism, infectious disease outbreaks, and other public health threats and emergencies.

### Center for Rural Health Practice
Michael Meit, Director
Web site: www.upb.pitt.edu/crhp
Phone: 814-362-5050

The University of Pittsburgh Center for Rural Health Practice works to engage public health researchers in rural health research and practice. Western Pennsylvania communities serve as testing grounds for national program models and for development of innovative rural health policy.

### The Hospital & Healthsystem Association of Pennsylvania
Carolyn Scanlan, President and CEO
Web site: www.haponline.org
Phone: 717-564-9200

The Hospital & Healthsystem Association of Pennsylvania is a statewide membership services organization that advocates for nearly 250 Pennsylvania acute and specialty care, primary care, subacute care, long-term care, home health, and hospice providers, as well as the patients and communities they serve.

### Pennsylvania Bar Association
Health Care Law Committee
Web site: www.pabar.org/healthhome.shtml
Phone: 717-238-6715

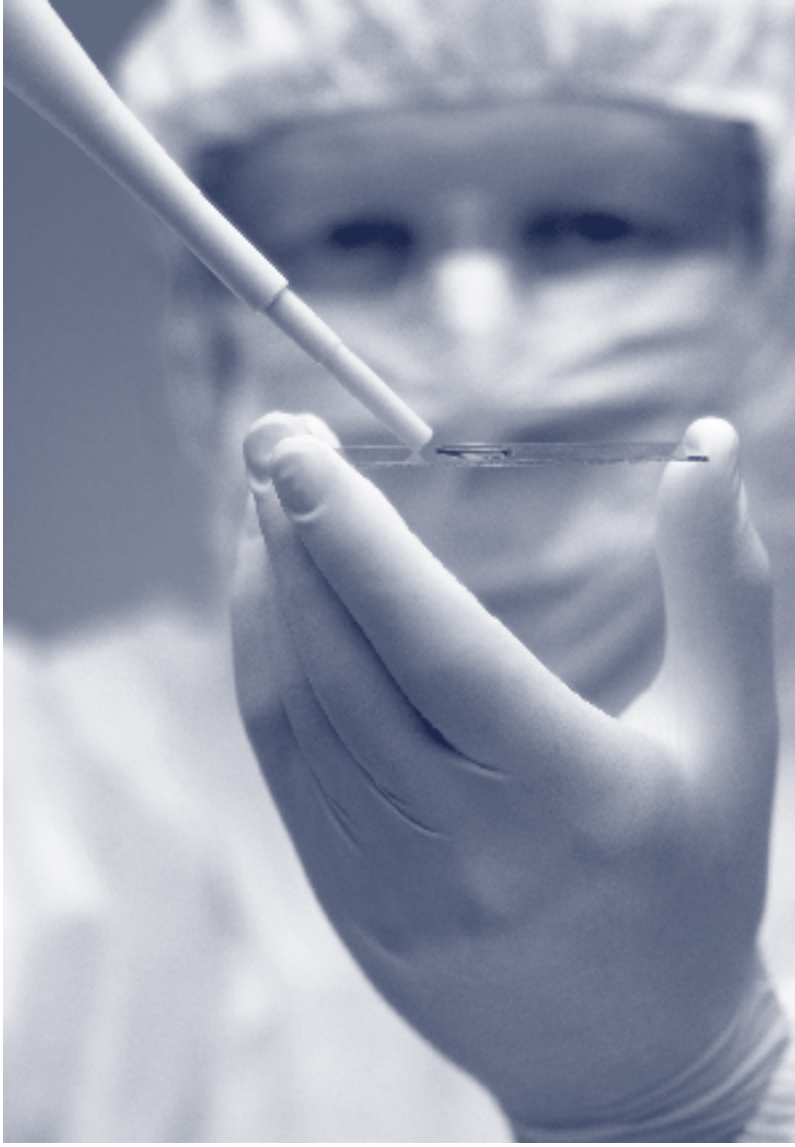
The Health Care Law Committee reviews, studies, and makes recommendations concerning legislative proposals for reform in the healthcare system.

### Trust for America's Health
Lowell Weicker Jr., President
Web site: http://healthyamericans.org
Phone: 202-223-9870

Trust for America's Health is a nonprofit, nonpartisan organization dedicated to saving lives by protecting the health of every community and working to make disease prevention a national priority.

### UPMC Center for Biosecurity
Tara O'Toole, Director/CEO
Web site: www.upmc-biosecurity.org
Phone: 443-573-3304

The UPMC Center for Biosecurity works to prevent the development and use of biological weapons, to catalyze advances in science and governance that diminish the power of biological weapons as agents of mass lethality, and to lessen the illness, death, and civil disruption that would result if prevention efforts were to fail.



## Media Organizations

### Associated Press
Web site: www.ap.org
Phone: 212-621-1500

### Pennsylvania Association of Broadcasters
Web site: www.shgresources.com/resources/tv/broadcasters
Phone: 717-482-4820

The Pennsylvania Association of Broadcasters' government relations efforts with state and federal lawmakers and regulatory agencies ensure that the varied interests of Pennsylvania broadcasters are protected and well served.

### Pennsylvania Newspaper Association
Web site: www.pnpa.com
Phone: 717-703-3000

# SECTION 7—GLOSSARY OF ACRONYMS AND TERMS

*by Tyler Gourley*

## ACRONYMS:

| | |
|---|---|
| ACLU | American Civil Liberties Union |
| ATAC | Anti-Terrorism Advisory Councils |
| CDC | U.S. Centers for Disease Control and Prevention |
| CENIC | Commonwealth Emergency News and Information Center |
| DHS | U.S. Department of Homeland Security |
| EHS | Emergency Health Service |
| EMAC | Emergency Management Assistance Compact |
| EMMCO | Emergency Medical Management Company |
| EMS | Emergency Medical Service |
| FBI | Federal Bureau of Investigation |
| FEMA | Federal Emergency Management Agency |
| H5N1 | Avian Influenza |
| HAN | Health Alert Network |
| HIPAA | Health Insurance Portability and Accountability Act of 1996 |
| HHS | U.S. Department of Health & Human Services |
| JTTF | Joint Terrorism Task Forces |
| NEDSS | National Electronic Disease Surveillance System |
| PA DOH | Pennsylvania Department of Health |
| PDA | Pennsylvania Department of Agriculture |
| PEMA | Pennsylvania Emergency Management Agency |
| PPE | Personal Protective Equipment |
| RCTTF | Regional Counterterrorism Task Forces |
| SARS | Severe Acute Respiratory Syndrome |
| UPMC | University of Pittsburgh Medical Center |
| USDA | U.S. Department of Agriculture |
| WHO | World Health Organization |

## Term Definitions:

### Act 315 Local Health Departments

Pennsylvania Act 315 of 1951, the local public health law, established standards and criteria for counties to create their own boards of health, and for cities with existing boards of health to maintain them.

### Anthrax

Anthrax is a serious disease caused by *Bacillus anthracis*, a bacterium that forms spores. Anthrax is not known to spread from one person to another. Humans can become infected with anthrax by handling products from infected animals or by breathing in anthrax spores from infected animal products (like wool, for example). People also can become infected with gastrointestinal anthrax by eating undercooked meat from infected animals. Anthrax also can be used as a weapon. This happened in the United States in 2001. Anthrax was deliberately spread through the postal system via letters containing anthrax-laden powder. This caused 22 cases of anthrax infection.[18]

### Avian Influenza A (H5N1)

Outbreaks of highly pathogenic avian influenza A (H5N1) occurred among poultry in eight countries in Asia (Cambodia, China, Indonesia, Japan, Laos, South Korea, Thailand, and Vietnam) during late 2003 and early 2004. At that time, more than 100 million birds either died from the disease or were culled. From December 30, 2003, to March 17, 2004, 12 confirmed human cases of avian influenza A (H5N1) were reported in Thailand and 23 in Vietnam, resulting in a total of 23 deaths. By late February, however, the number of new human H5 cases being reported in Thailand and Vietnam slowed and then stopped. Within a month, countries in Asia were reporting that the avian influenza outbreak among poultry had been contained. No conclusive evidence of sustained human-to-human transmission was found. Beginning in late June 2004, new lethal outbreaks of H5N1 among poultry were reported by several countries in Asia: Cambodia, China, Indonesia, Malaysia (first-time reports), Thailand, and Vietnam.[19]

### Biosecurity

Biosecurity can be defined as "a process to protect from attack or interference due to biological organisms." This process can be applied to oneself, a farm, the state, or our country.[20]

### Bioterrorism

Bioterrorism is the unlawful release of biologic agents or toxins with the intent to intimidate or coerce a government or civilian population and to further political or social objectives. Humans, animals, and plants are often targets. Depending on the agent, the incubation period can be up to 60 days. It is highly probable that hospitals, not traditional first responders, will be the first to recognize a bioterrorism event, secondary to the unfolding epidemiology and gradual increase in attack rates of a communicable agent.[21]

### Emergency Management Assistance Compact

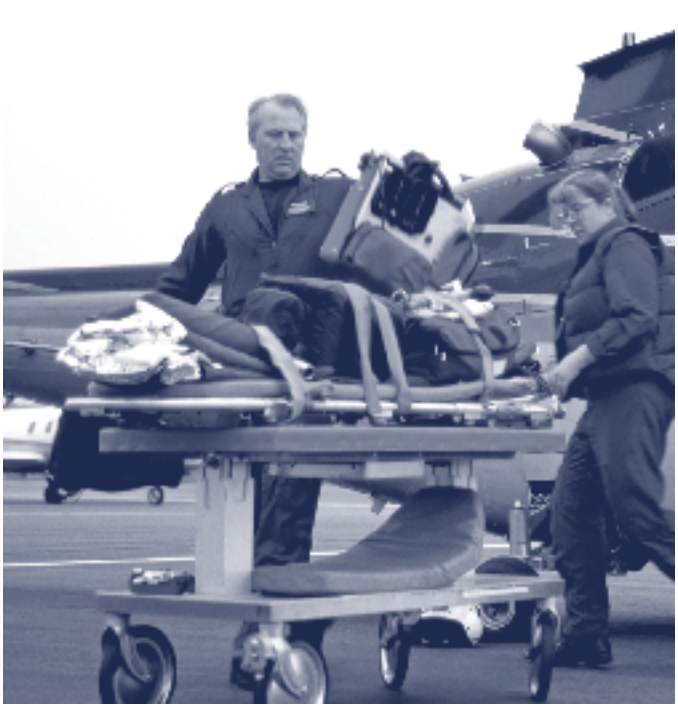
The Emergency Management Assistance Compact (EMAC) is a mutual aid agreement and partnership among states that exists because, from hurricanes to earthquakes and from wildfires to toxic waste spills, all states share a common enemy: the constant

[18] Centers for Disease Control and Prevention. "Anthrax: What You Need to Know." http://www.bt.cdc.gov/agent/anthrax/needtoknow.asp. July 31, 2003.

[19] Centers for Disease Control and Prevention. "Recent Avian Influenza Outbreaks in Asia." http://www.cdc.gov/flu/avian/outbreaks/asia.htm. January 24, 2005.

[20] Wallace, Dick. "Biosecurity and Biocontainment for Livestock in 2001." University of Illinois Extension Ag Update. http://www.urbanext.uiuc.edu/agupdate/0111_article1.html. December 2001.

[21] Suburban Emergency Management Project: Glossary of Disaster Management. http://www.ben.edu/semp/htmlpages/glossaryb1.html. July 27, 2002.



threat of disaster. The EMAC allows states to assist one another during emergencies, establishes a firm legal foundation, and provides fast and flexible assistance.[22]

## Epidemic

An epidemic is a widespread outbreak of a disease, or a large number of cases of a disease in a single community or relatively small area. Disease may be spread from person to person, and/or through the exposure of many persons to a single source, such as a water supply.[23]

## Epidemiology

Epidemiology is the study of outbreaks of disease that affect large numbers of people. Epidemiologists, using sophisticated statistical analyses, field investigations, and complex laboratory techniques, investigate the cause of a disease, its distribution (geographic, ecological, and ethnic), method of spread, and measures for control and prevention.[24]

## First Responders

First responders are emergency medical, fire, and other technicians who are usually the first on the scene at any disaster or emergency.

## Health Alert Network

The Health Alert Network is part of the Pennsylvania Department of Health's Public Health Emergency Preparedness and Response Program. It was established under a cooperative agreement with the U.S. Centers for Disease Control and Prevention. The PA Health Alert Network (PA-HAN) serves as a communication network among state and local public health agencies, healthcare providers, hospitals, and emergency management officials. The information provided on the PA-HAN website is based upon recommendations from the CDC and other health organizations.[25]

## Health Insurance Portability and Accountability Act of 1996 (HIPAA)

HIPAA is a federal law that was designed to allow portability of health insurance between jobs. In addition, it required the creation of a federal law to protect personally identifiable health information. If that did not occur by a specific date (which it did not), HIPAA was to direct the Department of Health and Human Services (HHS) to issue federal regulations with the same purpose. HHS then issued HIPAA privacy regulations (the HIPAA Privacy Rule) as well as other regulations under HIPAA.[26]

## Hepatitis A

Hepatitis A is a liver disease caused by the hepatitis A virus. Hepatitis A can affect anyone. In the United States, hepatitis A can occur in situations ranging from isolated cases of disease to widespread epidemics. Good personal hygiene and proper sanitation can help prevent hepatitis A. Vaccines are also available for long-term prevention of hepatitis A virus infection in persons 2 years of age and older. Immune globulin is available for short-term prevention of hepatitis A virus infection in individuals of all ages.[27]

## Joint Terrorism Task Forces

JTTFs are teams of state and local law enforcement officers, FBI agents, and other federal agents and personnel who work shoulder to shoulder to investigate and prevent acts of terrorism. These task forces are important force multipliers in the war on terror, pooling multi-agency expertise and ensuring the timely collection and sharing of intelligence that is absolutely critical to prevention efforts. Although the first JTTF came into being in 1980, the total number of task forces has nearly doubled since September 11, 2001. Today, there are 66 JTTFs, including one in each of the FBI's 56 main field offices and in 10 smaller offices. More than 2,300 personnel work on these task forces nationwide. There are currently four task forces in Pennsylvania.[28]

[22] Emergency Management Assistance Compact. "EMAC At-A-Glance." http://www.emacweb.org/EMAC/About_EMAC/What_is_Emac.cfm.

[23] Germology.com. http://www.germology.com/glossary.htm. 2004.

[24] Answers.com. http://www.answers.com. 2005.

[25] PA Department of Health. http://www.dsf.health.state.pa.us/health/cwp/view.asp?a=171&Q=234202. January 1, 2005.

[26] Partners Healthcare System Human Research Committee. http://healthcare.partners.org/phsirb/hipaaglos.htm.

[27] Centers for Disease Control and Prevention. "Viral Hepatitis A." http://www.cdc.gov/ncidod/diseases/hepatitis/a/. January 15, 2005.

[28] Federal Bureau of Investigation. "Partnerships." http://www.fbi.gov/terrorinfo/counterrorism/partnership.htm. 2005.

## National Electronic Disease Surveillance System (NEDSS)

The National Electronic Disease Surveillance System (NEDSS) is an initiative that promotes the use of data and information system standards to advance the development of efficient, integrated, and interoperable surveillance systems at federal, state, and local levels.[29]

## Pandemic

A pandemic is an epidemic occurring over a very wide area (several countries or continents) and usually affecting a large proportion of the population.[30]

## Patriot Act

The USA PATRIOT Act is an act of Congress that was enacted on October 26, 2001. USA PATRIOT is an acronym, so it is properly spelled in all capital letters. It stands for "Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism." The USA PATRIOT Act, which was passed 98–1 in the Senate and 357–66 in the House of Representatives, amended a number of existing statutes and enacted new provisions covering a wide range of topics.[31]

## Quarantine

To quarantine is to isolate an individual who has or is suspected of having a disease in order to prevent spread of the disease to others; alternatively, to isolate a person who does not have a disease during a disease outbreak, in order to prevent that person from catching the disease. Quarantine can be voluntary or ordered by public health officials in times of emergency.[32]

## Region 13

Formed in 1998, the Pennsylvania Southwest Emergency Response Group—also known as Region 13—is recognized as having one of the nation's best cross-jurisdictional emergency response arrangements. The region, with a population of 1.3 million, comprises 13 counties and the city of Pittsburgh.[33]

## Sarin

Sarin is a human-made chemical warfare agent classified as a nerve agent. Nerve agents are the most toxic and rapidly acting of the known chemical warfare agents. They are similar to certain kinds of pesticides (insect killers) called organophosphates in terms of how they work and their harmful effects. However, nerve agents are much more potent than organophosphate pesticides.[34]

## SARS

Severe acute respiratory syndrome (SARS) is a viral respiratory illness caused by a coronavirus, called SARS-associated coronavirus (SARS-CoV). SARS was first reported in Asia in February 2003. Over the next few months, the illness spread to more than two dozen countries in North America, South America, Europe, and Asia before the SARS global outbreak of 2003 was contained.[35]

## Smallpox

Smallpox is a serious, contagious, and sometimes fatal infectious disease. There is no specific treatment for smallpox disease, and the only prevention is vaccination. The name *smallpox* is derived from the Latin word for "spotted" and refers to the raised bumps that appear on the face and body of an infected person. Generally, direct and fairly prolonged face-to-face contact is required to spread smallpox from one person to another. Smallpox also can be spread through direct contact with infected bodily fluids or contaminated objects such as bedding or clothing. Because smallpox was wiped out many years ago, a case of smallpox today would be the result of an intentional act. A single confirmed case of smallpox would be considered an emergency. Thanks to the success of vaccination, the last natural outbreak of smallpox in the United States occurred in 1949. By 1972, routine smallpox vaccinations for children in the United States were no longer needed. In 1980, smallpox was said to have been wiped out worldwide, and no cases of naturally occurring smallpox have happened since. Today, the smallpox virus is kept in two approved labs in the United States and Russia. However, credible concern exists that the virus was made into a weapon by some countries and that terrorists may have obtained it. Smallpox is a serious, even deadly, disease. CDC calls it a "Category A" agent. Category A agents are believed to present the greatest potential threat to public health.[36]

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[29] Centers for Disease Control and Prevention. "The Surveillance and Monitoring Component of the Public Health Information Network." http://www.cdc.gov/nedss/.

[30] Centers for Disease Control and Prevention. "Glossary of Epidemiology Terms." http://www.cdc.gov/reproductivehealth/epi_gloss2.htm. August 20, 2004.

[31] Morford, Charles S. "U.S. Department of Justice Eastern District of Michigan Counter-Terrorism Webpage." http://www.usdoj.gov/usao/mie/ctu/FAQ_Patriot.htm. August 23, 2004.

[32] Centers for Disease Control and Prevention. "Glossary of Epidemiology Terms." http://www.cdc.gov/reproductivehealth/epi_gloss2.htm. August 20, 2004.

[33] Sarkar, Dibya. "Emergency Alerts Delivered Intelligently." *Federal Computer Week*. http://www.fcw.com/fcw/articles/2004/0419/tec-messaging-04-19-04.asp. April 19, 2004

[34] Centers for Disease Control and Prevention. "Facts about Sarin." http://www.bt.cdc.gov/agent/sarin/basics/facts.asp. March 7, 2003.

[35] Centers for Disease Control and Prevention. "Basic Information about SARS." http://www.cdc.gov/ncidod/sars/factsheet.htm. January 13, 2004.

[36] Centers for Disease Control and Prevention. "Smallpox Disease Overview." http://www.bt.cdc.gov/agent/smallpox/overview/disease-facts.asp. December 30, 2004.

## Triage

A method of ranking sick or injured people according to the severity of their sickness or injury in order to ensure that medical and nursing staff facilities are used most efficiently.[37]

## Viral Hemorrhagic Fevers

Viral hemorrhagic fevers (VHFs) make up a group of illnesses that are caused by several distinct families of viruses. In general, the term "viral hemorrhagic fever" is used to describe a severe multisystem syndrome (multisystem in that multiple organ systems in the body are affected). Characteristically, the overall vascular system is damaged, and the body's ability to regulate itself is impaired. These symptoms are often accompanied by hemorrhage (bleeding); however, the bleeding itself is rarely life-threatening. While some types of hemorrhagic fever viruses can cause relatively mild illnesses, many of these viruses cause severe, life-threatening disease.[38]

## West Nile Virus

West Nile virus (WNV) is a potentially serious illness. Experts believe WNV is established as a seasonal epidemic in North America that flares up in the summer and continues into the fall. The easiest and best way to avoid WNV is to prevent mosquito bites.[39]

*Support from the University of Pittsburgh Center for Public Health Preparedness is through cooperative agreement number U90/CCU324238 from the Centers for Disease Control and Prevention.*

[37] INSWeb.com. "Health Glossary." http://www.insweb.com/learningcenter/glossary/health-t.htm.

[38] Centers for Disease Control and Prevention. "Viral Hemorrhagic Fevers." http://www.cdc.gov/ncidod/dvrd/spb/mnpages/dispages/vhf.htm. August 23, 2004.

[39] Centers for Disease Control and Prevention. "West Nile Virus: What You Need to Know." http://www.cdc.gov/ncidod/dvbid/westnile/wnv_factsheet.htm. August 10, 2004.

The University of Pittsburgh Medical Center is proud to provide underwriting support for this report on preparedness for health emergencies in Pennsylvania.

# A SECURE REGION IS A HEALTHY REGION

By working together, we can all be secure with the knowledge that our homeland will remain safe, healthy, and whole.


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