

Conference Report

Bulls, Bears, and Birds: Preparing the Financial Industry for an Avian Influenza Pandemic

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***Bulls, Bears, and Birds: Preparing the Financial Industry for an Avian Influenza Pandemic* was a half-day symposium on avian influenza for senior leaders and decision makers from the financial sector with responsibility for business continuity, health, and security. The event brought together experts and leaders from the medical, public health, business continuity, and financial communities to apprise financial industry leaders on the threat of avian influenza and to offer suggestions regarding what the financial industry could do to prepare and respond.**

B*ulls, Bears, and Birds: Preparing the Financial Industry for an Avian Influenza Pandemic* was a half-day symposium on avian influenza cosponsored by the Center for Biosecurity of the University of Pittsburgh Medical Center (UPMC), Deutsche Bank, and the Contingency Planning Exchange, Inc. Held on September 23, 2005, at Deutsche Bank in New York City, the symposium was attended by more than 200 individuals from the medical, public health, business continuity, and financial communities, representing more than 100 different organizations (see Figure 1).

The purposes of this conference were, first, to convey the nature and dimension of the problem of pandemic influenza and the range of activities underway to deal with it, and second, to give the financial community some practical suggestions on how they might prepare to mitigate the effects of a pandemic on employees, operations, and the communities in which they work. Finally, organizers hoped this symposium would serve as a call to engage the leadership of the financial industry more deeply in pandemic planning.

SYNOPSIS OF SPEAKER PRESENTATIONS

Full transcripts and presentations (where available) are posted at <http://www.upmc-biosecurity.org>. Following

are the conference report authors' synopses of the symposium presentations, with a focus on key judgments and recommendations.

Opening Remarks: Tara O'Toole, MD, MPH, CEO and Director, Center for Biosecurity of the University of Pittsburgh Medical Center (UPMC):

Dr. O'Toole provided opening remarks and set the stage for why the business community should be concerned about avian influenza.

- There is a deep, growing concern among scientific and political leaders around the world that the avian flu strain H5N1 could develop the capacity to spread efficiently from person to person and initiate a pandemic that could kill tens, even hundreds of millions of people.
- The U.S. bears special responsibility for leading efforts to prepare for such an event given its scientific leadership, talent, resources, and health systems.
- Such a crisis would have a grave impact on global businesses, which should be making their own plans to cope as best they can and examining ways to use their considerable resources (e.g., information technology, logistical capacities, distribution processes) to help communities or even governments prepare to cope with a pandemic.

Beth Maldin, MPH, is an Associate; Thomas V. Inglesby, MD, is Deputy Director; Jennifer B. Nuzzo, SM, is an Analyst; Onora Lien, MA, is an Analyst; Gigi Kwik Grönvall, PhD, is an Associate; Eric Toner, MD, is a Senior Associate; and Tara O'Toole, MD, MPH, is Director; all are at the Center for Biosecurity of the University of Pittsburgh Medical Center, Baltimore, Maryland.

Pandemic Influenza Preparedness: The View from the White House: Rajeev Venkayya, MD, Senior Director for Biodefense, Homeland Security Council, The White House

Dr. Venkayya discussed the federal government's efforts to prepare for an influenza pandemic and what the U.S. government expects from business and global business leaders.

- The U.S. government judges the avian flu threat to be very serious and has engaged all federal agencies in the government response. From a historical standpoint, the world is overdue for a major pandemic, and, even if it does not happen this year, it will surely happen in the years ahead.
- The U.S. government recommends that business leaders prepare their own organizations and business communities for the possibility of an avian flu pandemic that is prolonged and pervasive. Business should integrate its activities into existing federal and local planning efforts.
- The financial sector should model the impact of infectious diseases on the industry to help guide and prioritize preparedness activities within the industry.

Pandemic Flu as a Major Security Threat: James L. Pavitt, Principal, The Scowcroft Group; Former Deputy Director of Operations at the Central Intelligence Agency

Mr. Pavitt discussed the threat of pandemic flu compared with other national security threats, assessed the potential impact on global business, and offered insight on flu preparedness.

- Current outbreaks of H5N1 around the world have provided strategic warning about the avian flu threat, and the U.S. should act accordingly, expecting no further advance or tactical warning. The Katrina response has shown that near-perfect intelligence about an impending crisis is not sufficient—planning and execution will matter most.
- The U.S. government has not yet dedicated resources commensurate with the scale of the avian flu threat; it would be irresponsible if the U.S. did not fully use the extraordinary scientific talent and economic power of the nation to prepare to cope with this problem.
- Business leaders should not only have pandemic plans; they must exercise them. Recent history has shown that many plans that are not tested or transparent are worth little in the midst of crisis.

Avian Influenza: Current Status and Potential Impact: Robert Webster, PhD, Rose Marie Thomas Chair of the Virology Division, Department of Infectious Disease, St. Jude Children's Research Hospital; Director,

WHO Collaborating Center on the Ecology of Influenza Viruses in Lower Animals and Birds

Dr. Webster discussed the differences between avian influenza and routine influenza, the current status of avian flu in Asia, and the implications of avian flu for business.

- The H5N1 virus has killed more than 50% of those infected, including many healthy adults. It is highly lethal in animals (the most lethal flu virus Dr. Webster has ever worked on), constantly mutating, and will eventually develop the capacity for easy transmission from person to person.
- Scientists have made tremendous strides in understanding the science of the H5N1 virus; for instance, it is now clear how to formulate a new vaccine from a new viral strain in 15 days, but developing the capacity to manufacture massive amounts of vaccine is now the responsibility of policymakers, not scientists. Scientists have performed their work, and now it is time for political leaders to do their part.
- The public, the private sector, and national governments must realize the seriousness of this threat and immediately bring to bear the resources necessary to develop effective human and animal surveillance, produce adequate amounts of vaccine and antivirals, and expand distribution capacity substantially.

The Economic Consequences of Epidemics: Robert Shapiro, PhD, MSc, Former U.S. Under Secretary of Commerce for Economic Affairs

Dr. Shapiro's presentation focused on the potential scale and characteristics of the economic threat posed by pandemics.

- The impact of natural catastrophes and terrorist attacks on the macroeconomy of nations has depended on (and will continue to depend on) key factors, such as the size of a nation's economy, the structure of its markets, and the geographic extent of the crisis. The U.S. has not suffered major macroeconomic damage following the 9/11 attacks, nor is it likely to after Hurricane Katrina, because our economy is large and diverse and because 9/11 was not a pervasive or protracted disaster, unlike a pandemic.
- The impact of an avian flu pandemic on the economies of smaller countries could be devastating, whereas the impact of an avian flu pandemic on the U.S. economy would likely be more localized and less severe, assuming the U.S. is taking all logical steps to prepare now, and assuming that steps could be taken to prevent the pandemic from being pervasive and protracted in the U.S.
- It is deeply concerning that the U.S. government ap-

pears to still be in the process of developing its pandemic preparedness plans, nationally and internationally. The U.S. should clearly be making the necessary modest public investments and planning steps now necessary to shorten the duration of an epidemic and minimize its impact.

New York City's Avian Influenza Response Plan: Isaac Weisfuse, MD, MPH, Deputy Commissioner, New York City Department of Health and Mental Hygiene

Dr. Weisfuse discussed the plans and resources available for responding to an avian influenza pandemic, and the ways in which the New York business community might engage in planning efforts.

- The NYC Department of Health and Mental Hygiene has made substantial investments in avian flu preparedness, working with its hospitals, laboratories, and the city's large clinical community. Business leaders should be educating their own organizations about avian influenza now in preparation for a pandemic.
- Businesses should engage with their local health departments to understand and coordinate with local preparedness planning.
- Businesses should consider specific steps they could take in the event of a pandemic to minimize major disruption, such as increasing the portion of their workforce that telecommutes for a time, expanding online transaction and self-service options to keep essential services running, giving employees good information before and during a crisis, encouraging clinicians and employee health offices to register with the Health Alert Network (HAN), and reinforcing prevention messages such as hand-washing and staying home when sick.

The World Health Organization's Avian Influenza Response Plan: Klaus Stöhr, DVM, Project Leader, Global Influenza Programme, Department of Communicable Disease Surveillance and Response, World Health Organization (WHO), Geneva

Dr. Stöhr's presentation focused on worldwide efforts to plan for an influenza pandemic, with emphasis on WHO's plans for coordination with countries in the effort.

- H5N1 is a major pandemic concern, and it will continue to spread widely in animals, making animal and human surveillance a top priority. Improvements in animal surveillance may necessitate profound changes in national agricultural and poultry production systems.
- Adequate stockpiles of antivirals cannot be produced in the near term due to limited production capacity, nor will generic antiviral medications be available in the short term; therefore, the global community needs to

invest in long-term solutions that will improve global supplies of influenza vaccines and antivirals and improve and streamline vaccine and drug development processes.

- Hospital and community preparedness plans around the world need to take into consideration the scarcity of drugs and vaccines, since vaccines and antivirals will only be available to a small number of countries and only a portion of their populations. Plans for preventive interventions such as masks, social distancing, voluntary home stay, and the like will be key.
- Incentives for international collaboration among affected countries would be necessary in a crisis, and strong international collaboration is needed now.

International and National Vaccine Planning Efforts:

David S. Fedson, MD, Former Professor of Medicine, University of Virginia School of Medicine, and Former Director of Medical Affairs, Aventis Pasteur MSD

Dr. Fedson discussed the challenges of developing sufficient influenza vaccine supplies for the United States and the international community in the event of a pandemic.

- WHO, with just 12 people working full-time on global pandemic preparedness, has not received appropriate political or financial support from donor nations, including the U.S. Member countries must provide more resources and support to the WHO for it to develop a strong response to avian flu.
- For there to be any chance that the U.S. will have enough vaccine for its whole population during an avian flu pandemic, the U.S. (and other vaccine-producing nations) must immediately pursue the development of an antigen-sparing vaccine so that we are able to protect more people per volume of vaccine produced. This will require an urgent change in U.S. FDA policy and public funding for clinical trials of low-dose antigen-sparing vaccines.
- To maximize global vaccine production, the U.S. should lead the effort to: (1) coordinate the efforts of the nine global vaccine manufacturers to make low-dose antigen/adjuvant vaccine; (2) reach agreements on the requirements for emergency licensing; (3) resolve intellectual property issues that now impair development of vaccine; and (4) make serious plans regarding how to allocate vaccines internationally in a crisis.
- Research into other substances for treating influenza, such as cholesterol-lowering statins, which have been shown to be of possible benefit in preliminary studies, should be pursued immediately.

The Economic Impact of SARS in Toronto: Gene Matthews, JD, Director, Institute of Public Health Law

Dr. Matthews discussed the social and economic impact of SARS in Toronto during 2003 and the implications for avian influenza preparedness efforts now.

- The SARS outbreak in 2003 revealed how bad the impact of an epidemic can be for businesses and illustrated the interdependence of governments, businesses, and the public health sector in such crises.
- In future epidemics, in the U.S. or elsewhere in the world, the private sector will be called on to help provide resources and assistance in efforts to cope. Because their role in responding to and recovering from a public health emergency will be at least as important as that of the government, businesses should build external preparedness networks geographically and industrywide.
- It is essential that businesses engage in local, state, and federal preparedness efforts with public health; those working relationships and bridges between the sectors must be established in advance of a crisis.
- Businesses should verify that local, state, and national governments have the necessary institutional and legal frameworks in place to respond to a large public health emergency.

Risk Communication Before and During Epidemics:

Peter Sandman, PhD, Risk Communication Specialist

Dr. Sandman offered recommendations on communication between business and stakeholders before and during a public health crisis.

Effective communication, with employees and others, about avian influenza is essential and includes:

- Frightening people may be necessary and appropriate to assure that they are adequately concerned about the risk and taking the threat of pandemic influenza seriously. Fear is rational and useful in response to frightening events, and it may help motivate necessary action.
- Acknowledging the uncertainty of the situation publicly and providing candid and transparent information as early as possible.
- Giving people useful actions to take.
- Once an event has occurred, focusing communication on helping people to cope and “bear their fears.” It is the responsibility of leaders to accept that task and to help people to cope appropriately.

Financial Sector Lessons Learned from SARS: Kenny Seow, Director, Regional Head of Business Continuity Management, Asia Pacific, Deutsche Bank AG, Singapore

Building on lessons learned from SARS, Mr. Seow suggested that businesses should:

- Build a knowledge base by reaching out to individuals, organizations, and disciplines that may be beyond the usual practices. These should include disease, legal, and regulatory experts.
- Define the “trigger points” for when contingency measures should be executed.
- Be aware that while plans will be made for global operations, execution will ultimately be local; therefore, all plans should assimilate health and legal guidelines from local governments.
- Maintain open and honest communications. It is essential that senior managers and employees be educated on plans and policies, which should also be communicated to employees and stakeholders.
- Even with well-crafted plans, flexibility and adaptability are essential, because there has to be capacity for addressing the new and unknown that will always arise.

Additional information on *Bulls, Bears, and Birds: Preparing the Financial Industry for an Avian Influenza Pandemic* can be found at www.upmc-biosecurity.org.

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FIGURE 1. ORGANIZATIONS REPRESENTED AT THE SYMPOSIUM

Abt Associates, Inc.	Lucent Technologies
Adheris, Inc.	Marsh
Aetna, Inc.	Marsh McLennan Companies, Inc.
AIG Global Investment Group	Mayor's Office, Industrial & Manufacturing Businesses
Alexander & Associates, Inc.	McGraw-Hill Company
Alfred P. Sloan Foundation	Merrill Lynch
Allied North America Insurance of NY	MFS Investment Management
American Express	Montague
American Institutes for Research	NC4
American Stock Exchange	New York City Department of Health & Mental Hygiene
Ameriprise Financial	New York City Office of Emergency Management
ANSER/Analytic Services, Inc.	New York State Insurance Department
Argus Partners	New York University
Bank of America	NFTC
Barclays Capital	Northern Trust
Barnard College/Columbia University	Northwestern Mutual Life Insurance
Bio-ERA	Nuclear Threat Initiative
Blackstone Alternative Asset Management Group	NYPD Counter Terrorism Bureau
BMO Financial Group	O'Brien and Associates International
BMO Nesbitt Burns	Office of Environmental Coordination, New York City
BNP Paribas	Oppenheimer Funds
Brookline Consulting LLC	Oracle Corporation
Brown Brothers Harriman & Co.	PanFlu LLC
Center for Biosecurity of UPMC	Paulson Partners
Charles Schwab & Co., Inc.	Pfizer Global Research & Development
CHD Meridian Health Care	Reuters
CIBC	Rumsfeld
Citigroup	Saint Barnabas Health Care System
Commerzbank AG	Securities & Exchange Commission
Copper Beech	Sigma Capital
Craig Drill Capital Corporation	Société Générale Group
Credit Suisse First Boston	Sonecon, LLC
Criterion Strategies	Source Media
Dawson Herman	Space and Defense Systems, Inc.
Depository Trust & Clearing Corp.	St. Jude Children's Research Hospital
Deutsche Bank	Sun Life Financial
Educational Testing Service	Texas A&M University—The Bush School of Government & Public Service
FBI	The Bank of New York
Federal Reserve Bank of New York	The Bond Market Association
Federal Reserve Board	The Clearing House
Fieldston Investors	The Scowcroft Group
Ford Foundation	The World Bank
Gartner	Trust for America's Health
GE Asset Management	UBS AG
Goldman, Sachs & Co.	UBS Wealth Management
Hines	UMDNJ
Homeland Security Council, The White House	United States Military Academy
HSBC Bank USA	University of Minnesota
IBM Corporation	University of Pittsburgh Medical Center (UPMC)
Institute of Public Health Law	Univision Communications, Inc.
International SOS Assistance, Inc.	Wachovia Bank
Jennison Associates LLC	Woodrow Wilson Associates
Jones Lang LaSalle/Deutsche Bank	World Health Organization
Jones Lang LaSalle/Goldman, Sachs & Co.	Wyeth Pharmaceuticals
JPMorgan Chase	
Lehman Brothers	
