Art + Science

Pandefense 1.0 conference

In November 2005 a consortium of Public Health Schools of prominent universities and other organizations sponsored a conference on the potential destructiveness of the Avian flu. The conference was called PanDefense 1.0.

What was the PanDefense 1.0 conference?

The goal of the conference was to take a multi-disciplinary approach to finding a small number of achievable interventions, assuming H5N1 flu virus becomes an efficient human transmitter and pathogen, and before there is a sufficient quantity of either an effective vaccine or antiviral. We were to find the gaps and the risks. We were to identify the key issues, barriers, and needs.

Attendees

There were 42 invited attendees at the conference, mostly from North America. Attending were many epidemiologists, disaster managers, experts in risk, panic, social collapse, vaccine production, immunology, avian medicine, poultry science, etc. Some of the attendees include: former deputy Surgeon General, a WHO epidemiologist, a planner from HHS/CDC, the Deans some of the schools of public health, a few venture capitalists, foundation executives, a top decision theorist from Carnegie Mellon, a Stanford political scientist, a Los Alamos risk decision modeler, and many bird experts, poultry scientists, experts in social distancing, vaccine production, sponsors and participants from industry organized with the expertise of a group at GBN (Global Business Network).

Bringing a task force up to speed

There were special circumstances that were a part of the PanDefense 1.0 conference. In particular, it was called with great urgency, and participants had little time to prepare (some less than a week). Moreover, the conference was so highly interdisciplinary, the worried epidemiologists who had conceived the conference had little assurance that those invited were "on the same page" as the saying goes, even though they each had vital pieces of knowledge that would be needed for an adequate global response to a potential pandemic. It was also used at the conference to gather feedback to create more of a consensus of pandemic outcomes and consequences.

Response--an information mural

With the help of the epidemiologists on the team, I created the information mural shown here. The aim was to provide a detailed and urgent picture of what the world might be like during the first 12 months of a pandemic.

Based on experience of the 1917 flu pandemic

The info-mural was intended to provide a sense of how quickly and how severely a pandemic could unfold in different parts of the world. Any such scenario is based on assumptions. For our purposes, the 1917 flu provided much of the consequences of a pretty bad pandemic. But the epidemiologists were thinking that the Avian flu (H5N1 as they called it) could be even worse than the 1917 pandemic because the death rate already at the time of our conference (i.e. in the first couple of hundred cases that were known about) was much worse than the 1917 flu. This also alerted me to include on the mural as many data points and explicit descriptions of the assumptions on which the mural was developed. As a result, I included two bands of information called "Data and Assumptions" and placed the explanations of these roughly right below the events that were described in the imagined newspaper headlines above. The blue boxes described assumptions and the green boxes the data. The mural printed out at about 4 x 12 feet and hung above the registration desk for the conference.

How do I get a printed copy?

Sketches like this one are works in progress that can be purchased, thereby aiding updating future versions the mural. Contact the artist to obtain signed copies of one of a variety of sketches and to discuss installing an info-mural at your institution.

How do I get updates & revisions and other info-maps in the series?

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Mega-Flu Pandemic (not quite the) Worst Case Scenario v.2

2005

U.S.A.

INTERNATIONAL

Months 13-36 Uncertainty about a second wave

Month 1

Rumors begin to spread

WHO expert suggests China has CONCEALED hundreds of human bird flu deaths

Rumor says elderly will not get vaccine

Wrong information about bird flu floods internet after 2,400 deaths reported on bird flu

Inventors warned of STOCK SCAM

Customs agents confiscate fake antivirals

Retailers give bird flu a 66% CHANCE OF HAPPENING IN US BY MARCH 2006

US begins emergency effort to avoid pandemic

U.S. cities hit hard

U.S. healthcare system struggles

U.S. drug supply inadequate

Deaths overwhelm healthcare system

Social chaos in parts of U.S. as flu devastates economy

Flu-related black market hits big cities

2 million deaths in U.S – Country struggles to recover

Key assumptions of this scenario

U.S. Preparedness for a mega-flu pandemic

Data and Assumptions

Month 2

Avian flu outbreak signals pandemic alert

Human-to-human transmission begins

Data and Assumptions

Month 3

Widespread deaths begin in Asia

Normal business and tourist travel carries Avian Flu to Europe, North America, and Latin America

Month 4

Countries struggle to slow disease

Month 5

Initial wave of pandemic overwhelms Asia

Month 6

Rapid spread across the globe

First "Wave" of the Flu Hits SE Asia

First "Wave" of the Flu Hits Europe

Month 7

Africa is devastated by pandemic

Month 8

World economy begins to falter

Month 9

Mega-flu brings world economy to near-halt

Month 10

Global economic depression begins...

Month 11

Worldwide two hundred million die

Month 12

Economies collapse; governments fall

How Many Might Die?

Assumption	Deaths worldwide
1957 flu pandemic mortality	1 million
1918 flu pandemic mortality	67 million
1918 extrapolated for 50% of population	2 to 7.4 million
Avian flu mortality	1 million to 100 million
CDC's estimate	7 to 100 million
2004 extrapolated	125 million (maximum)
H5N1 mortality extrapolated	1 billion

Modified from slide 3 from A. The Website W. Dr. Chief. 2005. CIS

DRAFT v.2 - based on published information
Prepared for the Pandefense 1.0 Conference