A Nightmare Scenario

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Should we sound the alarm for a worldwide epidemic that might not occur? There is no choice with the **avian flu** emerging from Asia. Last week's disclosure that an Indonesian man tested positive for the bird flu that has already killed more than 50 people in Southeast Asia was just the latest chilling news about the disease. Should it develop certain genetic changes, international health experts warn, bird flu could spark a global pandemic, infecting as much of a quarter of the world's population and killing as many as 180 million to 360 million people--at least seven times the number of AIDS deaths, all within a matter of weeks.

This is utterly different from ordinary flu, which kills between 1 million and 2 million people worldwide in a typical year. In the worst previous catastrophic pandemic, in 1918, more than 20 million died from the Spanish flu. That's more than the number of people who died from the Black Death in the Middle Ages--and more people killed in 24 weeks than AIDS killed in 24 years.

What is a pandemic? There are three elements. First, a virus emerges from the pool of animal life that has never infected human beings and is therefore one to which no person has antibodies. Second, the virus has to make us seriously ill. Third, it must be capable of moving swiftly from human to human through coughing, sneezing, or just a handshake. For **avian flu**, the first two elements are already with us. Well over half the people who have contracted it have died. The question now is whether the virus will meet the third condition, of mutating so that it can spread rapidly from human to human.

Tipping point. It has already moved from chickens to birds to pigs. The latter often serve as a vessel for mixing human and animal viruses because the receptors on the respiratory cells of pigs are similar to those of humans. This illustrates the dangers we face, because this mixture of bird flu and human flu, in either an animal or a person, could cause the viruses to exchange genetic materials and create an entirely new viral strain capable of sustaining

efficient human-to-human transmission. This would be the tipping point to a pandemic.

At this point, nobody knows just how close we might be to such a crisis. Experts are alarmed, however, because we are singularly ill prepared. Worldwide, we currently produce only about 300 million doses of flu vaccine a year to serve over 6 billion people. A pandemic that began in Asia could race around the globe in days or weeks, given the number of airliners crisscrossing the oceans from Tokyo, Vietnam, and Indonesia to New York, Los Angeles, and London.

What should we be doing? A whole lot more. First: We need operational blueprints to get various populations through one to three years of a pandemic. We must coordinate the responses of the medical community, of food providers, of transportation, and of care for first responders from public health, law enforcement, and emergency management at the international, federal, state, and local levels. Second: We must strengthen the World Health Organization so that it can be an accurate clearinghouse of information about the scope and location of the disease, should it begin to spread, and quell false rumors that could lead to global panic. Third: We must track the human cases already documented so as to gain the very earliest warning of any transformation of the disease, and thus of an emerging pandemic. Days would be critical. Fourth: The Bush administration must think of this as terrorism to the nth degree and immediately set up a senior-level emergency task force to develop a strategy. It could serve as a permanent framework for curtailing the spread of future infectious diseases. Fifth: We must prioritize research money to develop a vaccine, expand the production of flu vaccine, and stockpile antiviral medications. It would be irresponsible to begrudge time and money. A pandemic could well bring global, national, and regional economies to an abrupt halt in a world that relies on the speed and distribution of so many products. A pandemic could lead many countries to impose useless but highly destructive quarantines that would disrupt trade, travel, and production--something that has never happened with AIDS, malaria, or tuberculosis. At home, many venues of human contact--schools, movie theaters, transportation hubs, and businesses--would have to be shuttered. Imagine the chaos. These killer viruses simply can't be isolated in any part of the world. If **avian flu** were allowed to develop into a pandemic, it would be a direct threat to our health, security, and prosperity.

The word influenza derives from the Latin influentia, reflecting the belief at the time that epidemics were due to the influence of the stars. Today, we have moved far beyond that fantasy, but even so, the world is clearly not ready for an **avian-flu** pandemic. With the scientific consensus already shifting from if to when the next global outbreak takes place, we have no time to lose.