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COMMENTARY

## Efforts under way to protect us from avian flu

By Dr. J. David Curb

On March 31, 2003, a China Airlines flight attendant based in Taiwan arrived in Honolulu on a flight from Tokyo. She wasn't feeling well and spent an uneventful night in a Waikiki hotel room. The next morning, she returned to Taiwan, where she was later hospitalized.

Unbeknownst to the public, Hawai'i had come perilously close to economic disaster. The woman was later diagnosed with SARS. Had she been hospitalized in Honolulu and infected others, the Aloha State might have suffered the consequences that befell Toronto, whose tourism industry underwent a devastating decline as a result of SARS. According to the Canadian Tourism Association, cancellations attributed to SARS cost Ontario hoteliers at least \$60 million in April 2003 alone. Ontario Health Minister Tony Clement estimated that as of June 27, 2003, SARS had cost that province's healthcare system \$945 million. Money was spent to protect healthcare workers and to build specialized SARS clinics and isolation rooms.

Obviously, with our own economy so dependent on tourism, the repercussions of an infectious disease such as an avian flu (H5N1) outbreak would be catastrophic. Based on the experience of Toronto, air travel would diminish, as would leisure-related activities such as hotel stays, cruises, entertainment and visits to theme parks and other public venues. As in Toronto, education, health and social services would also be affected.

Would Hawai'i fall victim to a global pandemic?

We can only look at the past for guidance. A Northwestern University study released in May ranked Honolulu in the top 1 percent of world travel hubs, and therefore a place to watch during a contagious disease outbreak. Should a pandemic break out, the odds of an infected visitor arriving here are high. Even before air travel, the 1918 Spanish flu pandemic that killed 20 million to 50 million people worldwide made its way here. As my colleague Paul Effler from the state Department of Health aptly noted, the numerous headstones from 1918 in the Kawaiaha'o Church graveyard provide ample evidence that Spanish flu made an impact on our Islands.

According to the Trust for America's Health, a nonprofit, national health policy organization based in Washington, Hawai'i could face more than 2400 deaths and 10,571 hospitalizations if a moderately severe strain of a pandemic flu virus hit the U.S. Research tells us that this potential scourge likely would hit the most economically productive age group — those people 20 and 40 years old — the hardest.



While nobody can be certain exactly when a pandemic may strike, my colleague, Dr. Duane Gubler, director of the Asia-Pacific Institute of Tropical Medicine and Infectious Diseases at the University of Hawai'i, tells me that "while there are many uncertainties about the emergence of pandemic influenza, health officials worldwide agree that it's not a matter of 'if' but rather 'when' another pandemic will occur."

So how we can protect ourselves?

Bird flu is sensitive to a prescription drug called Tamiflu, which is expensive and in short supply. The good news is that if the drug is taken early on in an infection, it can make a potentially lethal infection into something that is at least tolerable. The caveat is that to be effective, one would have to know that they had a flu infection and not just a cold. Naturally, there is more to prevention than just drugs.

Given the high stakes of a pandemic, a heavy burden has been placed on the public health system and medical workers around the Islands. State officials are gearing up to protect Hawai'i residents and will have a definitive plan ready by the end of the year.

Already, the Department of Health screens patients at a Honolulu Airport clinic for flu-like symptoms that might be avian influenza. The plan also will incorporate several programs currently in place, including a doctors network which will report suspicious flu cases to the state Epidemiology Division, a database of hospital cases that can be updated daily, and distribution procedures for vaccines and medications. (Doctors already send samples to the state for testing when they are unsure about a patient's respiratory illness).

Our organization, Pacific Health Research Institute, could quickly help field a special surveillance system for disease outbreaks and bioterrorism. Created from an existing institute-directed Hawai'i network used to track diabetes, this structure would entail close collaboration with the state Department of Health, the Quest Program, the Hawai'i Medical Service Association and Kaiser Permanente. With this organization and technology, we have the potential to be a model for the rest of our nation.

Another key component in defending against bird flu and other infectious diseases is a state-of-the-art laboratory. UH has been given the money to build an advanced biological lab near the existing Department of Health laboratory in Pearl City. The lab would provide Hawai'i with the capability to quickly and definitively identify avian flu and other disease agents.

Without the lab, our isolation will work against us in an emergency. If, for example, someone was identified with a suspected bird-flu infection, samples would have to be sent to the Mainland. Potentially, this could result in lethal delays in diagnosis for Hawai'i residents.

We all hope a pandemic will not occur, or if it does, that it will bypass Hawai'i. But if a pandemic does evo lve, the odds are high infected visitors will find their way here.

What is absolutely certain is that if we don't prepare, we could be overwhelmed by an avian flu influenza invasion.

Biologist and Nobel laureate David Baltimore visited our medical school campus earlier this year. As he said in a recent Wall Street Journal op-ed article, "With governmental leadership and sufficient investment, we could be in a strong position to counter an invasion. To be ready in a couple of years, we need to start now. And we have no idea if we can afford to wait another day — or even if it is too late."