

Africa and Swine Influenza Virus

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Just after the first cases of H1N1 (swine flu) had been confirmed in Mexico, a newspaper reporter wrote me an email asking whether the government of Malawi was prepared to deal with the current threat of the influenza.

I had to take a deep breath, relax, and remember what I had learnt from the journalism school and the school of public health – media can be a double-edged sword, an agent for both good and bad. They can be alarmists or can just inform people without expecting to create any change in their behavior. I had to think carefully what to reply since once I was quoted out of context, it would be very hard to reverse any damage that had been done. There were at least two options to consider. First, I could decline to offer my opinion and direct the reporter to somebody else. The second alternative was to answer any questions that would be presented to me and hope that what will get out of print will be accurate and a fair presentation of what I had said or written.

I have done tens of radio and television interviews, both pre-recorded and live broadcasts, and I have had reasonable experience with writing in newspapers on many issues. However, health is my least favorite topic; I deal with health issues by commenting on politics, rather than on medical services and health care, since as we should all know, politics is health and health care at a grand scale. Despite my prior experience in talking about health issues, I had never written or been asked to comment on an infection that was of global interest.

The first question that the reporter asked me was the following: “Is the Malawi government doing enough to protect its citizens from the threat of swine flu?” At the time, I was not aware of any government plans to deal with swine flu in the country. I was aware, however, that though there was no task force on swine flu, there was a government facilitated task-force on pandemic flu

in general. Also, I was not aware that the Ministry of Health was taking any special interest in the flu the first few days after its outbreak. However, that does not mean that the Ministry was not preparing any measures against the epidemics. So, the best that the reporter could do was to call the Principal Secretary for Health or the Minister of Health, who would have the latest information on what the government was or was not doing.

Influenza viruses affect many species of animals, eg, birds, whales, seals, horses, and of course hogs. Migrating waterfowl are the primordial reservoirs, containing the gene pool of virtually all influenza subtypes (1). Transmission of the various viruses can occur from one species of animals to others. The swine flu virus has important genetic components which make it a perfect virus to cross the species barrier. Both the human and the swine flu virus recognize the sialyl α 2,6-galactose oligosaccharide side chains as the receptor on the host cell. Swine cells also contain the sialyl α 2,6-galactose oligosaccharide-linkage, which is the receptor for avian influenza virus (2). So, as long as there are humans, birds, swine, and viruses, we cannot say for sure which influenza virus type will emerge in the future.

At the time of writing this article, the World Health Organization (3) reported that Mexico, with 1112 laboratory-confirmed human cases of infection, including 42 deaths, was the country hit hardest by the swine flu. The United States reported 896 laboratory-confirmed human cases, including 2 deaths. Other countries with laboratory-confirmed cases but no deaths were Austria (n=1), Canada (n=201), China, Hong Kong Special Administrative Region (n=1), Colombia (n=1), Costa Rica (n=1), Denmark (n=1), El Salvador (n=2), France (n=5), Germany (n=10), Guatemala (n=1), Ireland (n=1), Israel (n=6), Italy (n=5), Netherlands (n=2), New Zealand (n=5), Poland (n=1), Portugal (n=1), Republic of Korea (n=3), Spain (n=81), Sweden (n=1), Switzerland (n=1), and the United Kingdom (n=32). Of

particular note was the absence of any African country on the list. What does this mean?

There are many possible reasons as to why Africa may have been spared. Granted that the epidemic started in Mexico, it is very easy to imagine how the United States got affected. Mexico and the United States have a very long border, there are over 600 flights between the 2 countries each day, and the traffic by road is heavy. In a similar way the flu might have spread from Mexico to Central and South American nations. Since Mexico is a Spanish-speaking country and the links between Spain and Mexico are one of the strongest between nations, it is also not surprising that Spain had the greatest number of cases in Europe.

It seems instructive that Africa has been spared the swine flu. Does this mean that while the world is conducting

business, spending time in leisure, and intermingling, Africa is being left behind? Was it the prevention of infectious diseases that saved Africa from swine flu or was it just global isolation?

References

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- 2 Lekcharoensuk P, Lager KM, Vemulapalli R, Woodruff M, Vincent AL, Richt JA. Novel swine influenza virus subtype H3N1, United States. *Emerg Infect Dis.* 2006;12:787-94. [Medline:16704839](#)
- 3 World Health Organization. Influenza A(H1N1) – update 20. Available from: http://www.who.int/csr/don/2009_05_07a/en/index.html. Accessed: May 7, 2009.