

*Editorial*

## Influenza virus A (H1N1)

The world had been expecting for more than 10 years the predicted pandemic avian Influenza A H5N1 virus. Europe and North America had been over-prepared for it. Britain has stockpiles of vaccine for half of its population. Public Health managers in the US have been rehearsing protocols for public health emergency preparedness. Billions of dollars have been spent for it. Research scientists have tested and prepared all sorts of laboratory methods to engage the Avian Influenza virus should it strike.

Behold; an unexpected swine influenza virus A H1N1 virus came. It will take awhile before all facts are known. Around February 15, 2009, a child in a village town called La Gloria in Veracruz, Mexico was ill with influenza which was described as severe but the child made a full recovery. Within the same period, several children below 15 years of age had above the normal frequency of influenza in the town of La Gloria and surrounding environ of Veracruz. Then in April, there was an explosion of Influenza virus infection in Mexico City. Clusters of infection progressed to full blown epidemic in Mexico City. The viral isolates from the Mexico City epidemic were retrospectively linked to the clusters of Influenza Virus infection that attacked the village town of La Gloria around February 15. Genetic epidemiology shows that the virus causing the epidemic in Mexico City is same as the virus that erupted in the village town of La Gloria two months earlier. The town of Gloria has a large pig farm which was described as dirty and smelly and pigs have special affinity for Influenza virus A.

The question arises. Did human beings in La Gloria, Veracruz in Mexico infect the pigs with H1N1 virus in the first place and then, the pigs subsequently modified the genetic material of the virus to create the reassortment gene with such a rapid human –to-human transmission?

The truth will be known after the genetic material of this novel virus has been elucidated. It will take time to know. The pandemic potential of this novel virus was portrayed by a frightening transmission rate. By April 29, 2009, the number of people infected in Mexico has risen to about 13,000 people with about 73 generations of human- to-human transmissions. Within few hours, Air travelers from Mexico took the viruses to America and Canada. Few days later, the virus was isolated in England, Scotland, Germany, China, Brazil and Japan. Few weeks later, human-to-human transmissions were confirmed in America, England and in almost all the continents except Africa. No report has yet come from Africa.

### **Another question; is this a pandemic?**

The World Health Organization (WHO) may be reluctant to call it a pandemic for political reason. By all scientific definitions, the infection had been marked by human-to-human transmissions in North America, Europe and parts of Asia and South America. Yes, it is a pandemic – probably by a virus of low virulence. Mexico had identified 11,932 suspected cases and 949\* cases of laboratory-confirmed novel influenza A (H1N1) virus infection, including 42 patients who died. Cases with laboratory-confirmed infection have been identified in 27 of 31 Mexican states.

The figures in the United States are still growing. As of May 6, a total of 1,487 confirmed<sup>†</sup> and probable cases had been reported from 43 states, including 642 confirmed cases (reported from 41 states) and 845 probable cases (reported from 42 states). Current experience with laboratory testing results indicates that the probability of laboratory confirmation for probable cases is >99%. States with the most confirmed cases are Illinois (122 cases), New York (97), California (67), Texas (61), and Arizona (48). About 3 deaths have been associated.

A lesson has been learnt. Countries with minimal preparedness should beef up their public health preparedness for a probable future Avian Influenza Virus A H5N1. Africa had been spared by the swine influenza, this may not be so with the Avian Influenza.

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Acting Editor-in-Chief  
International Journal of Medicine and Medical Sciences

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