

Risk Matters



Dear Reader,

Swine Influenza (swine flu) is a respiratory disease caused by the type A(H1N1) influenza virus. Swine flu affects pigs throughout the year causing them illness but few fatalities. It is the nature of flu viruses to “reassort” their genetic components, allowing new ones that mix swine, human or avian flu viruses to emerge.

Humans do not normally contract swine flu but infections can and do happen. Swine flu viruses have been reported to have spread from person-to-person, but in the past this transmission has been limited and not sustained. However, in late March and early April 2009, cases of human infection A(H1N1) viruses were reported in the US and Mexico.

Although the world is better prepared to manage the risk associated with a potential pandemic, having addressed similar emotions with severe acute respiratory syndrome (SARS), ebola virus and avian flu, it is worth considering the possible impact of the current swine flu outbreak.

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Swine Flu

The classical swine flu virus was first isolated in pigs in 1930. Although making pigs feel poorly, the virus is rarely fatal to the animal. Contact with affected animals has led to humans also becoming unwell, and cases of person-to-person infections have been documented in the past. The Centres for Disease Control and Prevention (CDC) reports one human swine virus infection has occurred every one to two years in the US.

The symptoms are similar to the those of regular human flu and include fever, cough, sore throat, body aches, headache, chills and fatigue, with some patients also reporting diarrhoea and vomiting. However swine flu may worsen underlying chronic conditions, and death may occur in association with severe pneumonia and respiratory failure.

This flu appears to be spreading in the same way that seasonal flu spreads, through coughing or sneezing by people with influenza. Sometimes people may become infected by touching something with flu viruses on it and then touching their mouth or nose.

An Emerging Threat?

What is different this time is that the CDC has determined this outbreak to be contagious and spreading from human-to-human, although currently it is not known how easily this spread occurs. Accurate monitoring of the potential threat, which this outbreak of swine fever poses to global public health, may be difficult with the media often quoting unsubstantiated numbers. However a case count of confirmed swine flu infections in the United States may be monitored at <http://www.cdc.gov/swineflu/investigation.htm>.

The 2009 WHO Global Influenza Preparedness Plan has assigned a phase 5 alert to this swine flu outbreak on the eve of 29th April after having raised it from 3 to 4 only two days earlier. Whereas level 4 signals the need for response and mitigation efforts, level 5 indicates the first level of a pandemic phase supported by the sustained community outbreaks in two or more countries within one WHO region. According to the WHO, the

Pandemic Phase Descriptions

	Description
Phase 1	No animal influenza virus among animals has been reported to cause infection in humans.
Phase 2	An animal influenza virus circulating in domesticated or wild animals is known to have caused infection in humans and is therefore considered a specific potential pandemic threat.
Phase 3	An animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks.
Phase 4	Human-to-human transmission (H2H) of an animal or human-animal influenza reassortant virus able to sustain community-level outbreaks has been verified.
Phase 5	The same identified virus has caused sustained community level outbreaks in two or more countries in one WHO region.
Phase 6	In addition to the criteria defined in Phase 5, the same virus has caused sustained community level outbreaks in at least one other country in another WHO region.
Post-Peak Period	Levels of pandemic influenza in most countries with adequate surveillance have dropped below peak levels.
Possible New Wave	Levels of pandemic influenza activity in most countries with adequate surveillance rising again.
Post-Pandemic Period	Levels of influenza activity have returned to the levels seen for seasonal influenza in most countries with adequate surveillance.

Source: WHO – Pandemic Influenza Preparedness and Response.

spreading cases in Mexico and the United States meet that criterion. As context, in recent years the level has been at phase 3, as very limited human-to-human transmission cases of H5N1, the strain of avian flu, have been seen in Asian countries.

The WHO emergency committee recently agreed that while the current situation constitutes a public health emergency of international concern, a number of gaps in knowledge exist about the clinical features, epidemiology and virology of reported cases.

The WHO guidance suggests that we will know there is a bigger risk of pandemic only if and when swine flu causes sustained community outbreaks as this marks a significant upwards shift in the risk for a pandemic. A pandemic will only occur when a new virus appears against which humans have no immunity and for which no antiviral agent is effective. Such a virus could be spread rapidly by our increasingly mobile and urbanised population.

Managing the Risk

WHO may have confirmed gaps in their current knowledge of this particular flu scare, perhaps unsurprisingly at this early stage, but public health agencies have benefited from WHO guidance on the appropriate response to a potential pandemic as the world becomes accustomed to such threats. Improvements to public health infrastructure and strengthened coordination for screening and control, together with practical steps such as increased public alertness and stockpiled antiviral medicines.

Extensive practical experience has been gained through our response to the outbreak of SARS and avian influenza A (H5N1 or bird flu). Countries monitor and control arrival gateways rigorously. Detailed advice is displayed for travellers briefing them on screening procedures. Asian countries screen arriving travellers

for fever using thermal scanners and offer immediate medical treatment if required. Many other countries have announced plans to place in quarantine arrivals suffering flu-like symptoms.

Of course such actions cannot detect a person who is currently well but incubating the virus, and anyone in this condition will not be prevented from entering another country and potentially spreading the illness. It is to be hoped, however, that heightened public awareness will encourage people with symptoms to seek medical intervention. Beyond this, it should be stressed that guidance extends only to the normal precautions to take to avoid a common cold, mainly avoiding other people who are sick.

The Insurance Response

Currently, both the number of people infected and deaths are not sufficiently accurate to determine the mortality level of those infected. Having said this, it seems this strain is more deadly than normal seasonal flu but evidently does not have a virulence near as severe as the H5N1 (avian flu) virus in 2006-07. In other words, we are possibly dealing with a “Low Pathogenicity” influenza virus.

Noteworthy is also the relatively slow progression of the disease, thus making it likely to keep it in check. The level of infectiousness will be a key focus point in the further assessment of the virus.

Assessment of the correct response for underwriting also has gaps. For example, we are certainly unaware of the personal background of those reported as currently unwell with suspected swine flu. Risk stratification depends on details such as occupation, prior health, socio-economic group and so forth, and without this we cannot tell if this population sub-set is representative of the insurance-buying public.

Modern selection processes often actively discourage applicants from disclosing minor ailments at the underwriting stage; even on occasion citing flu as an example. Couple this with the short (7 to 10 day) incubation period for swine flu and it seems unlikely that applicants for insurance, who have H1N1 or are likely to fall ill with swine flu, will be identified.

It is possible that medical services will see an increase in requests for advice relating to symptoms that have no link to swine flu, and this may diminish the effectiveness of traditional medical evidence. Only the results of a blood test can categorically confirm the diagnosis and by that stage either full recovery or death may have occurred.

Should an underwriter suspect an applicant of having had exposure to the virus as a result of residence in an affected area, for example Mexico, then normal travel assessment protocols should apply.

CDC guidance that, in addition to the flu-like symptoms mentioned above, any adult with “emergency warning signs” including breathing difficulties, pain or pressure in the chest or abdomen, sudden dizziness or confusion, should be suspected as having swine flu, may be signs that an underwriter could find.

And finally, it is not possible to get swine influenza from eating pork or pork products. Eating properly handled and cooked pork products is safe.

Further reading

Pandemic Influenza Preparedness and Response, WHO, April 2009
www.cdc.gov/swineflu/investigation.htm



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