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pic by Maximilian Bernal

avian influenza (H5N1)

a media guide

From
the People of Japan

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design : SALT MEDIA

fore-word

They say that to the average journalist, bad news is good news. Without a calamity, interest wanes, fatigue sets in, and important issues get relegated to deeper pages or minor news slots.

But Malaysian officials have not succumbed. In the case of Avian Influenza, the authorities' efforts are ongoing, whether or not there is an immediate threat. It goes a long way in explaining why the country has been successful in averting potential massive outbreaks. Indeed Malaysia has proved something of a role model in this respect.

UNICEF's mandate, as is well known, is to protect children. Avian Influenza may seem disengaged from this goal but it is in reality directly connected.

An outbreak has multiple repercussions on society. As ever, the most vulnerable person is the child. Infected birds mean a loss of income for the household. With less money for basic necessities, emphasis on school and education drops. An outbreak also means that the child loses important sources of protein. Even more dire is the prospect of losing one or both parents to this frightening virus.

Given these very real possibilities, UNICEF feels that the media has a crucial role to play. We hope to engage the media as partners so that stories are carried not just when we are on the brink of a crisis, but now, when the public has more power than anyone to avert a catastrophe.

UNICEF hopes that this guide will prove useful. In it, you will find facts about Avian Influenza, background information, myth busters and reporting tips. Together, we can work towards preserving good health, but more than that, giving hope to people when they most need it.

Gaye Phillips

GAYE PHILLIPS
UNICEF Representative, Malaysia
UNICEF Special Representative, Singapore & Brunei

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ABOUT THE VIRUS

WHAT IS AVIAN INFLUENZA?

Also known as “bird flu”, it is what wild birds and poultry develop when they are infected by an avian influenza virus. This virus differs from the human influenza viruses.

THERE ARE MANY TYPES OF BIRD FLU. ARE THEY ALL HARMFUL?

There are 15 types of bird, or avian, flu. The most contagious strains, which are usually fatal in birds, are H5 and H7. There are nine different types of H5 some of which are highly pathogenic, while others are harmless. The type currently causing concern is the deadly H5N1 strain, which has proven fatal in some humans. This virus is also known as highly pathogenic avian influenza (HPAI).

HOW DOES THE VIRUS SPREAD?

Wild ducks are known carriers of the viruses, although they themselves are unlikely to develop an infection. However, when these ducks migrate from place to place they pass it on easily to domestic birds like chickens and ducks which are much more susceptible.
These domestic birds in turn have infected humans. Aside from domesticated ducks and chickens, geese, quail and even pigs, are known to have been infected by the virus.

HOW EXACTLY DO BIRDS SPREAD THE VIRUS?

Birds excrete the virus in their feces, which dry, become pulverized, and are then inhaled.

WHAT IS THE DIFFERENCE BETWEEN HUMAN AND AVIAN INFLUENZA?

Influenza in humans is a viral respiratory infection that typically affects the nose, throat and sometimes, lungs. Called 'the flu', it occurs seasonally, most often during the winter months in temperate countries. The human influenza is transmitted from human to human whereas the avian influenza is from bird to bird and sometimes, from birds to humans. If the H5N1 bird flu evolves into a strain that can be transmitted from human to human then it will be considered a new human or pandemic influenza virus.

CAN THE VIRUS MUTATE?

It can and it has.
"Every time the H5N1 virus spreads to new regions, you increase the probability and also the opportunity for the virus to mutate. With each case of human infection the probability for the virus to mutate increases. This virus is very treacherous."
Dr Margaret Chan – Representative of the WHO Director-General for Pandemic Influenza and Assistant Director-General for Communicable Diseases [WHO Handbook for Journalists: Influenza Pandemic].

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PANDEMIC PROPORTIONS

WHAT IS A PANDEMIC?

A pandemic occurs when a new version or "strain" of influenza emerges and is passed from human to human. This new strain has either never made the rounds before or is an old strain that has not been detected in humans in a long while. This strain will spread more swiftly and widely than seasonal influenza because of the lack of human immunity to the new virus. Once a fully transmissible human pandemic virus emerges, it is expected to encircle the globe within three months. The World Health Organization [WHO] estimates that between two and 7.4 million human deaths could be caused by a new influenza pandemic.

HISTORY

Influenza pandemics are rare but have occurred every 10-50 years quite consistently throughout history.

WHAT CAN TRIGGER A PANDEMIC?

Three conditions must be met before a pandemic begins:

- A new influenza subtype that has not previously circulated in humans must emerge.
- This new subtype must be capable of causing disease in humans.
- The virus must be capable of being passed easily among humans. Only this last condition has yet to be fulfilled by HPAI.

WHAT WILL BE THE IMPACT OF A PANDEMIC?

The lack of immunity would mean increased illness among humans. Mortality rates are likely to rise. Children especially will be directly affected by infections as well as by the potentially devastating social and economic impacts of a pandemic.

CAN A PANDEMIC BE STOPPED?

"Throughout history, no human interventions have managed to stop a pandemic once it starts... There's a chance that we could smother the spark of a fire before it catches on. It will depend then on spotting an outbreak of human transmission quickly, and acting quickly."
Dr Margaret Chan [WHO Handbook for Journalists: Influenza Pandemic].

WHO IS AT THE LOOKOUT POST?

WHO has 115 National Influenza Centres in 84 countries. These networks continuously monitor influenza activity and report the emergence of any "unusual" influenza viruses immediately to WHO or to one of four WHO Collaborating Centres. This process of communication is essential for an effective response to the pandemic. WHO also convenes meetings with international partners to plan and coordinate preparedness activities, as well as to raise funds. WHO has developed an Influenza Pandemic Preparedness Plan to define the responsibilities of WHO and national authorities in the event of a pandemic. A detailed list of actions has been sent to member states to help them prepare for a pandemic. (http://www.who.int/csr/disease/influenza/en/).

THESE MEASURES ARE INTENDED TO:

- reduce the opportunities for human infection
- strengthen the early warning system
- contain or delay the spread of the pandemic virus at the source
- reduce morbidity, mortality and social disruption from the pandemic
- conduct research to guide response measures

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THE VIRUS AND HUMANS

CAN THE VIRUS SPREAD TO HUMANS?

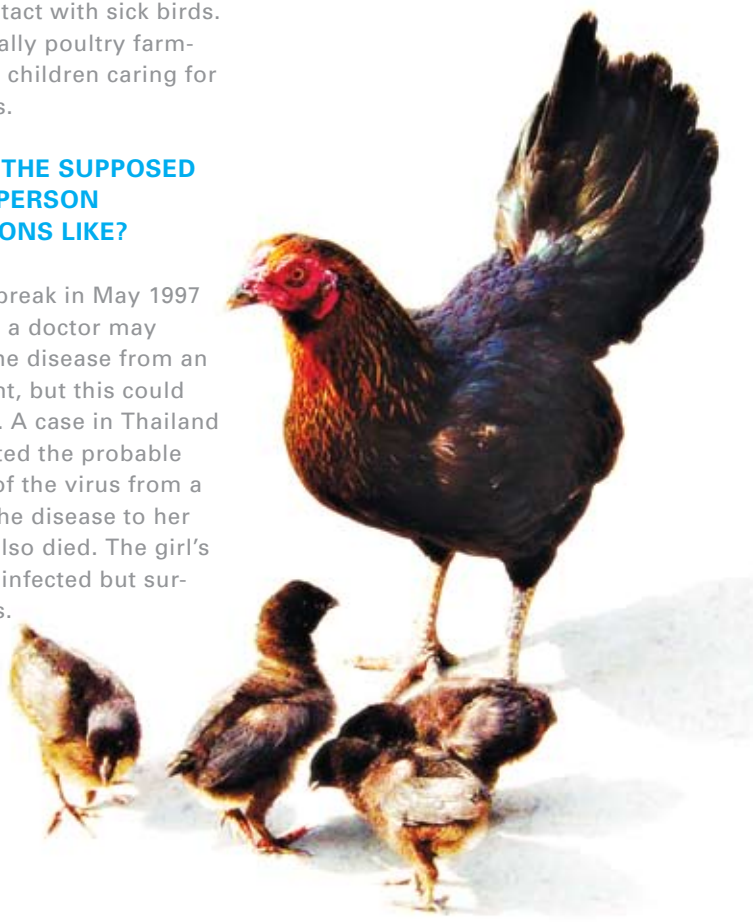
It can. However, the H5N1 virus has only caused human infections in a very small number of people exposed to it, and usually requires intense and close exposure to sick birds or their droppings.

CAN IT BE PASSED FROM PERSON TO PERSON?

The HPAI is still a bird virus and although it passes on easily enough from bird to bird, it has not yet evolved into a human virus. However, it has caused a few human infections, as animal viruses can, without being fully adapted to humans. There may have been examples of human-to-human transmission, but the evidence so far is not conclusive, and is far from a situation that could cause a pandemic. Those who have contracted the virus had very close contact with sick birds. These are usually poultry farmers and young children caring for domestic birds.

WHAT WERE THE SUPPOSED PERSON-TO-PERSON TRANSMISSIONS LIKE?

During an outbreak in May 1997 in Hong Kong, a doctor may have caught the disease from an infected patient, but this could not be proved. A case in Thailand in 2004 indicated the probable transmission of the virus from a girl who had the disease to her mother, who also died. The girl's aunt was also infected but survived the virus.



In January 2004, two sisters died in Vietnam after possibly contracting bird flu from their brother who had died from an unidentified respiratory illness. His sisters who cared for him both developed symptoms on Jan 10. Both were hospitalized on Jan 13, both were found to be H5N1 positive and both died on Jan 23. One sister had no history of contact with birds so a cluster transmission seems convincing.

WHO WAS THE FIRST HUMAN VICTIM AND HOW HAS THE VIRUS SPREAD SINCE?

The first human victim of the bird flu was a three-year-old boy in Hong Kong. He died in May 1997. Eighteen others were infected, of whom six died. For almost six years after, there was no trace of the virus until it was detected again in February 2003 when a father and son were diagnosed with H5N1, again in Hong Kong.

The virus has since spread westwards through Asia, the Middle East, Europe and Africa. Despite efforts to curb its spread the H5N1 virus has slipped through mass culls, exclusion zones and border controls.

In April 2005, the virus was found in a dead swan in Scotland. For the first time in February 2006, the virus was detected in wild birds in Austria, Bulgaria, Egypt, Greece, Germany, Italy, India, Iran and Slovenia.

The H5N1 strains circulating now are quite different from the H5N1 strain detected in Hong Kong in 1997. Over time, the virus has mutated several times with new and endemic strains being detected. It has also developed the ability to infect more and more species of birds, and has found its way into mammals – specifically, cats that have eaten infected birds.

HOW MANY PEOPLE HAVE BEEN INFECTED AND WHERE?

Between 1997 and September 2006, there have been more than 250 people infected and 147 deaths. The highest number of cases was in Vietnam (93), followed by Indonesia (68), Thailand (25) and China (21).

it's safe to eat chicken

WHO IS MOST VULNERABLE TO THE VIRUS?

As it stands, children account for about half of all reported human cases and a third of deaths. This could be because children – often girls – usually care for domestic poultry, feeding them, cleaning their coops and gathering eggs. Some children also treat chickens as pets.

WHAT PRECAUTIONS CAN INDIVIDUALS TAKE?

HEALTH EXPERTS SUGGEST:

- Stay away from sick or dead birds
- Keep yourself informed about new virus developments
- Report sick or dead birds to the local authorities
- Keep poultry away from children and living areas
- Wash hands often with soap and water
- Eat only fully-cooked poultry products
- Seek treatment

WHAT ARE THE SYMPTOMS OF BIRD FLU?

Symptoms are similar to other types of flu – fever, malaise, sore throats and coughs. People can also develop conjunctivitis.

CAN I CONTINUE TO EAT CHICKEN?

Experts have clarified that the avian flu is not a food-borne virus, so it's safe to eat chicken. However, WHO recommends that to be absolutely safe, all meat should be cooked to a temperature of at least 70°C. Eggs should also be thoroughly cooked. As the virus is carried in the chicken's gut, handling, slaughtering and preparing infected, uncooked chicken can carry some risk.

LATEST FACTS

27 September 2006

Cumulative number of confirmed human cases of Avian Influenza:

	CASES	DEATH
AZERBAIJAN	8	5
CAMBODIA	6	6
CHINA	21	14
DJIBOUTI	1	0
EGYPT	14	6
INDONESIA	68	51
IRAQ	3	2
THAILAND	25	17
TURKEY	12	4
VIETNAM	93	42
TOTAL:	**251**	**147**

Source: WHO

WHAT IS THE PRESENT SITUATION WORLDWIDE?

Since 2003, HPAI has caused severe infection in birds. It spreads rapidly through poultry flocks killing 90 to 100 per cent of infected birds within 48 hours. Two hundred million birds worldwide have been killed directly by H5N1 virus or culled. There have been more than 230 human cases of which half were fatal. The virus has mutated and new and endemic strains have emerged as late as August 2006. More than 30 countries have been affected.

As the virus has caused some human infections, it has shown that it has the potential to become a human virus. This evolution of the H5N1 strain could happen suddenly; it may take years, or it may never happen.

However, as it has spread from Asia to Europe, the Middle East, and even Africa, scientists worry that it may combine with a human strain to produce a mutation difficult to combat.

pic by Toivo Lagerweij

WHICH COUNTRIES ARE MORE VULNERABLE?

At risk are countries where poultry trade across borders continues and those without cross-border HPAI control measures.

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SOCIAL AND ECONOMIC IMPACTS

Outbreaks of avian flu among domestic birds mean that families who farm poultry lose an important source of food and income. This can affect children's health and threaten their access to education. When income drops dramatically, families sometimes can't afford to send their children to school or pay for essential health services.
At the national level, the presence of H5NI means costly measures to control outbreaks. It would affect the international trade of live birds and poultry meat products. Tourism to an affected country is also very likely to drop.
In Thailand, in the past, the high presence of H5N1 led to embargoes against its poultry trade, severely affecting its export economy.
It is estimated that Thailand's agricultural growth halved during the December 2003 - October 2004 outbreak.
In Hong Kong the 1997 outbreak led to the slaughter and destruction of the entire poultry flock of 1.5 million birds. It is estimated to have cost the country hundreds of millions of dollars. The scale of impact of H5N1 on a country will largely depend on two things: how important the poultry export market is, and how important tourism is for the country. In Thailand's case, both play a crucial role in its economy.

income drops dramatically

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TREATMENT

IS THERE A VACCINE?

A pandemic vaccine needs to be a close match to the actual pandemic virus. Thus commercial production of vaccines cannot begin prior to the emergence and characterization of the pandemic virus. However, prototypes based on the H5N1 strain are being produced, which offer protection against the HPAI.
In August 2005, US researchers announced preliminary results from an experimental pandemic influenza vaccine that provoked a strong immune response in humans in a clinical trial. This development should cut the lead-time needed to produce a vaccine from four to six months to two to three months. This vaccine, however, would only be effective if it is ultimately the H5N1 strain that provokes the pandemic, and if the strain has not significantly changed from that used to develop the vaccine.

there are medications that are effective against avian flu in people

HOW HAVE HUMANS INFECTED WITH THE VIRUS BEEN TREATED SO FAR?

There are medications that are effective against the avian influenza virus in people. Sometimes, people with influenza develop secondary bacterial infections and these can be treated with antibiotics.

WHAT ABOUT ANTIVIRALS?

Antivirals are a very valuable component of pandemic preparedness as vaccines are unlikely to be available during the onset of an outbreak. They are effective for both treatment and prevention of influenza. There is currently only one class of antiviral that has been shown to be effective against all of the H5N1 human isolates from Asia. These are oseltamivir [also known as Tamiflu] and zanamivir, known as Relenza. The importance of stockpiling antivirals was stressed at the Training Workshop on Human Influenza Surveillance and Control convened in Kuala Lumpur by the WHO Regional Office for the Western Pacific in April 2005.

EARLY INTERVENTION MEASURES

In the event of an outbreak, some non-medical responses should be:

- quarantine
- isolation
- travel recommendations
- entry and exit screening
- closing schools and workplaces
- avoiding mass public gatherings
- washing hands regularly with soap and water
- covering the mouth when coughing or sneezing
- disposing of tissues carefully
- wearing masks

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NEW DEVELOPMENTS

HUMAN TO HUMAN BIRD FLU LINK IN INDONESIA

According to a New Straits Times report (22/6/06) a limited human-to-human transmission of the deadly H5N1 virus is believed to have caused the death of seven members of a family in North Sumatra in July the same year.

The story said that a joint investigation by WHO and the Indonesian health ministry showed that out of the seven deaths in the family, six of the victims were "most likely" to have been infected through limited human-to-human transmission from the first member of the family who fell ill.

EGYPT SUFFERS WORST OUTBREAK OUTSIDE ASIA

Egypt suffered the worst outbreak in 2006 of avian flu outside Asia [refer to table on page 08]. The disease was largely brought under control, although fears remained of a new outbreak.

NEW STRAINS

In August 2006, the FAO reported that new and endemic strains of HPAI had been isolated during the latest outbreaks in Southeast Asia.

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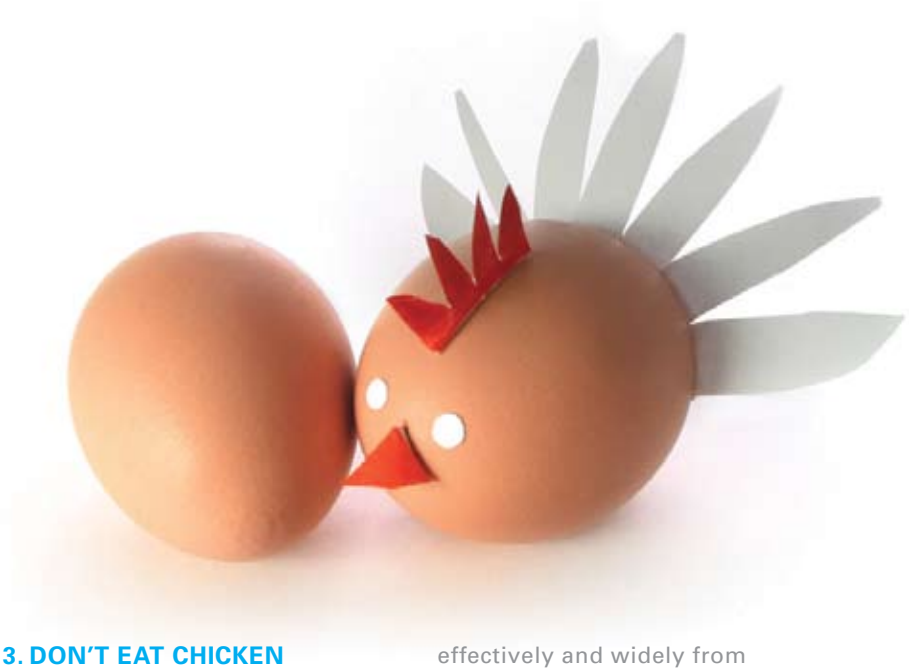
MYTH BUSTERS



1. THE VIRUS CAN SPREAD FROM HUMAN TO HUMAN

Except for a few isolated cases, some of which cannot be conclusively proven, the bird flu is still very much an avian flu.

2. WE WON'T BE ABLE TO DEVELOP A VACCINE IN TIME

It takes about six months to develop a vaccine. If the WHO Pandemic Preparedness Plan, precautions and proper control measures are undertaken promptly and effectively, outbreaks can possibly be contained or limited until the vaccine is developed.

3. DON'T EAT CHICKEN AND EGGS

There is no danger in eating poultry or poultry products as long as the food is cooked properly. For WHO cooking guidelines, refer to page 08.

4. A PANDEMIC IS UPON US?

No one can predict when a pandemic might occur. However, experts from around the world are watching the H5N1 situation in Asia very closely and are preparing for the possibility that the virus may begin to spread more effectively and widely from person to person.

5. THE VIRUS IS KILLED EASILY AND DOES NOT LAST LONG OUTSIDE THE BODY

Actually the virus does live for a long time outside the body. However, heat over 70 ° Celsius for 30 minutes will kill the virus. At 80 ° the virus is killed in one minute. Good hygiene – regular hand washing and cleaning of surfaces – will also remove the virus.