

## Bird Flu News 1-7 August 2006

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### Bird Flu Outbreak in Thailand Renews Fears Among Tour Operators

01 August 2006

By Barry Newhouse



Tourism representatives in Thailand have expressed concern after last week's first reported bird flu death in the country in seven months. Tourism is critical to the Thai economy and the industry is urging the government to control the latest bird flu outbreak.

Thai livestock officials search and spray disinfectant a car passing through Nakhon Phanom province, northeastern Thailand

The Thai tourism industry is urging the government to take action to wipe out bird flu before October, the start of the peak tourist season. The tourism sector has just rebounded from the major setbacks of the 2004 tsunami and the 2003 outbreak of Severe Acute Respiratory Syndrome.

With peak season approaching, Chattan Kunjara Na Ayudhya of the Thai Tourism authority says officials are expecting strong numbers. "It looks good - from reports I have obtained from the major tourist destinations: Chiang Mai, Ayutthaya, Phuket, all looking good. And I think hoteliers are happy with the bookings so far," he said.

But last week's announcement of the re-emergence of the virus in northern Thailand and the death of a 17-year-old boy from bird flu has raised concerns that the disease could still wreak havoc on the country's \$12 billion tourism industry.

Operators fear the tourists could disappear if the virus spreads. The SARS outbreak in 2003 dramatically reduced the number of visitors to Thailand in a matter of weeks, although travelers to the country were not considered to face a significant risk.

John Kodlowski of the tourism industry's Pacific Asia Travel Association, said the SARS experience and the 2004 Indian Ocean tsunami taught Southeast Asian governments the importance of quickly communicating and addressing health risks. He says in the case of bird flu, officials appear to be doing a good job.

"Generally speaking the industry is happy with the way governments are handling it, but of course they always expect them to be right on top of the issue and they expect them to be very open and honest in communicating real risks, real threats and actual activities - what they are doing," he said.

Although it was criticized for its initial slow response to the first bird flu outbreak in 2003, Thailand is now considered to be among the countries best prepared to deal with the virus.

Bird flu outbreaks in Thailand have been largely confined to rural areas where people come into direct contact with infected birds. Health officials have contained those outbreaks by slaughtering thousands of birds. The H5N1 virus has not yet mutated into a form easily passed among humans and most of the more than 130 people who have died from the disease caught it directly from birds.

The latest bird flu outbreak appears to be mainly a worry of Thai tour operators, not tourists. Bangkok's downtown tourist operators are still busy arranging travel packages for the some 13 million tourists who arrive here each year. .

Best Peerapong mans the desk at Inter-Trans Travels and says some of his clients are familiar with bird flu, but it has not cut into his business. "Customers they come into my office but they do not worry about, no one worries about bird flu," he explained.

The Thai government insisted that the latest outbreak of bird flu could be controlled and also pledged to help poorer neighboring countries fight the disease.

<http://www.voanews.com/english/2006-08-01-voa25.cfm>

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## Mutated Bird Flu Virus Might Not Spread Easily

01 Aug 2006

Although many scientists have been concerned that the H5N1 bird flu virus may mutate one day and become easily human transmissible, a recent study seems to indicate that it might not spread easily among humans. Researchers from the Centers for Disease Control and Prevention (CDC), USA, tried to combine a common human flu virus with H5N1 and found it does not spread easily.

This could mean that the mutated virus may not be such a giant threat to global human health. You can read about this study in the Proceedings of the National Academy of Sciences, August 2. Scientists infected ferrets with genetically engineered H5N1 viruses and found that the infected animals did not spread their illness to other healthy ferrets - all the animals were very close to each other. They also found that the 'mutated' virus was not as virulent as the original H5N1.

(Virulent = Potent, powerful)

The H5N1 bird flu virus strain may one day mutate by exchanging genetic information with a normal human flu virus. It could infect a human who also had the normal human flu and mutate. Dr. Jackie Katz, one of the researchers, said the study was carried out to see what would happen when H5N1 acquired the genetic changes needed for better transmission.

The researchers mixed H5N1 genetic material with other viruses. Ferrets and humans catch and transmit flu in a very similar way, hence, ferrets were used in this study. Ferrets infected with 'mutated' H5N1 viruses did not pass on the virus to healthy ferrets in the same cage.

This does not mean that a mutated H5N1 will never be dangerous to humans. It just means that the chances of a mutated virus being a serious threat to global public health are smaller than feared. There are 50 possible combinations of the viruses.

The current H5N1 virus can only infect a human deep down in the lungs, not the upper respiratory tract. This has advantages and disadvantages:

Advantage:

- It is more difficult to make someone ill because the virus has to go a long way down. A human has to be exposed to a large cluster of the virus for longer to get ill.
- An infected human who coughs and sneezes will not emit many viruses, because they are deep down in the lungs - that is one of the reasons humans cannot infect other humans easily.

Disadvantage:

- A human who has an infection deep down in the lung(s) will not know about it until it has progressed further than a person who has an upper-respiratory infection. This is one of the reasons the human death rate is so high.

For the H5N1 to become more human transmissible will most likely need to mutate so that it infects the upper-respiratory tract. If it manages to do this, the theory goes, it will spread more easily, but will probably not be so deadly.

(Human transmissible = Spreads from human -to-human)

*Written by: Christian Nordqvist, Editor, Medical News Today*

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## 'Blackout' threat to bird-flu analysis

02 August 2006

Indonesia is failing to send bird flu samples to official laboratories, creating a "data blackout" that could have serious implications for New Zealand as it seeks to ward off a pandemic.



Experts said submitting samples for testing at United Nations-approved facilities was key to global surveillance of the virus, which it is feared will mutate into a form easily passed between people.

They also warned new research unveiled this week in the United States, in which scientists failed to combine the deadly H5N1 strain with common flu in a way that could cause a pandemic, was not as encouraging as it might seem. "I think the situation in Indonesia is worrying for the rest of the world, and it is rapidly catching up, in

terms of the number of outbreaks in poultry species, with Vietnam," said Lance Jennings, a Christchurch virologist.

Jennings, who works as a consultant for the UN's World Health Organisation (WHO), said some samples from Indonesia were getting out. "One of the major issues with a number of countries is that they are putting caveats on those samples; for example, that the information is not allowed to be widely disseminated," he said.

He said the WHO was working to try to find a resolution. "The WHO does manage a global influenza surveillance network and it is imperative that countries do contribute openly to this network." Experts say some countries have been reluctant to disclose the extent of bird flu infection for fear of sowing panic and damaging tourism.

The weekly scientific journal Nature on July 28 reported that few, if any, avian flu samples from Indonesia had been sent to official laboratories for sequencing over the past year. It said the data blackout came as surveys of the country were revealing a startling number of previously unrecognised avian flu outbreaks.

Peter Roeder, a consultant with the UN Food and Agriculture Organisation in Indonesia, said the first samples since August last year had finally arrived at the World Organisation for Animal Health reference library in Geelong, Australia. Without proper sequencing of bird flu viruses, it is difficult to tell whether they are mutating or how human cases correspond to those in birds.

Seven bird flu deaths in an Indonesian family this year led to fear the virus could spread from one person to another as no nearby avian source could be identified. "It's not really surprising in countries like Indonesia that there are possibly unrecognised pockets of infection still bubbling away," said Environmental Science and Research (ESR) health general manager Fiona Thomson-Carter.

"Quite frankly, Indonesia probably doesn't enjoy First World public health services," she said.

ESR is the New Zealand agency that monitors new organisms and holds the national collection of medical bacteria and viruses. Thomson-Carter said the failure by US scientists to create a pandemic virus should not get people too excited. "What nature accomplishes very elegantly, scientists struggle to mimic in a laboratory situation."

Biosecurity chiefs this year imported a small quantity of the H5N1 virus and are keeping it under tight security at a lab in Upper Hutt. Lab manager Joseph O'Keefe said Kiwi scientists would not be conducting US-style experiments.

By DAN EATON. <http://www.stuff.co.nz/stuff/0,2106,3751150a12,00.html>

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## Asia pledges joint action to fight bird flu

02 August, 2006

New Delhi/Bangkok: Bird flu-hit Asian countries vowed on Friday to unite to fight the virus and said they recognised the need to better coordinate efforts between health and farm agencies at national level.

Ministers and senior officials from 11 Asian countries including China, Indonesia and Thailand agreed to share knowledge of avian influenza, including investigation of cases and outbreaks, which have killed 134 people since 2003.

In the "Delhi Declaration" agreed after a two-day meeting hosted by the World Health Organisation, the Food and Agricultural Organisation and the Indian government nations also pledged to collaborate to develop and produce drugs, vaccines and diagnosis.

India is close to developing its own vaccine against avian flu in poultry with final trials showing a 90 per cent success. Thailand also has plans to test bird flu vaccines on humans. "We are working towards a new model of regional collaboration among countries in Asia and the commitments we have made today would require a lot of coordination between countries and international organisations," said Anbumani Ramadoss, India's health minister.

Asian countries need \$500 million (Dh1.8 billion) more to combat a possible bird flu pandemic. They need about \$882 million (Dh3.24 billion) to establish "reasonable levels of preparedness" for a human influenza pandemic, he said.

Meanwhile, Laos has reported an outbreak of H5N1 bird flu among chickens at a farm near the capital Vientiane, a foreign ministry spokesman said. Some 2,580 chickens were found dead last week at the poultry farm in Xaythany district.

- Source: Gulf News

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## Dutch cull chickens to stop bird flu spread

Wed Aug 2, 2006



AMSTERDAM (Reuters) - Dutch authorities culled 25,000 chickens at a farm infected with a low-pathogenic H7 bird flu strain on Wednesday and sealed off another 130 farms to prevent a major outbreak in one of the world's top poultry exporter.

The virus was reported on Tuesday in the central region of Gelderse Vallei, reviving bitter memories of the devastating outbreak of an H7N7 avian flu strain in 2003 that led to the culling of 30 million birds, about a third of the poultry flock.

"All 25,000 birds at the farm were culled last night," a spokeswoman for the Dutch Agriculture Ministry said. "We are now taking samples of all farms (around the infected one) for testing and the first results are expected on Friday".

Authorities in the Netherlands, Europe's second biggest poultry producer after France, set up a 3-km (1.5-mile) safety zone around the infected farm and temporarily sealed off all the 130 poultry farms in the zone, ordering their chickens to be kept inside.

Trade and transport of live birds, meat and eggs as well as other live animals in and out the safety zone were banned. All exhibitions and fares involving live birds have also been prohibited, the ministry said.

Authorities said strict measures were needed because the detected H7 strain, even though seen as less dangerous as the one in 2003, might mutate into a more aggressive form.

- Source: Reuters

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## China bird flu patient recovers, cause a mystery

03 Aug 2006

BEIJING, Aug 3 (Reuters) - A Chinese man who was diagnosed with bird flu in June has recovered and been released from hospital, but where and how he picked up the virus is still a mystery, state media said on Thursday.

The 31-year-old truck driver from southern Shenzhen city, which lies just over the border from Hong Kong, possibly contracted bird flu after visiting a poultry market in May, the official China Daily reported. But neither his wife, who bought a chicken there, nor the other family members who ate it fell sick, the newspaper said.

"This was a one-off case. Shenzhen is not a danger zone for bird flu," it quoted Jiang Hanping, head of the city's health department, as saying, adding there had been no other reports of the H5N1 strain of avian flu in Shenzhen.

The World Health Organisation said the case showed there were still poultry outbreaks that were not being detected.

"There have been several cases in China which have not had a directly identified source of infection, so it's not surprising," WHO spokesman Roy Wadia said. "Many outbreaks in poultry -- and many infected birds -- are never really picked up."

Xinhua news agency said the hospital had to work hard to save the man because he was very sick by the time he was admitted. Treatment methods including using blood serum from previously recovered patients to fight the virus.

China has reported about 40 outbreaks of bird flu in birds across a dozen provinces and regions over the past year and, since November, 12 people are known to have died from the virus. Seven have recovered.

The H5N1 virus has spread among birds across Asia, Europe and Africa. Contact with infected birds is the most common way to contract the virus. Scientists fear H5N1 will mutate into a strain that spreads between humans, sparking a pandemic in which millions of people could die around the globe.

Source: Reuters

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## German zoo finds H5N1 bird flu in dead swan

Fri Aug 4, 2006



BERLIN (Reuters) - A swan found dead in a zoo in the eastern German city of Dresden was infected with the highly infectious H5N1 strain of bird flu which is dangerous for humans, the local government said on Friday.

A government spokeswoman in Dresden said tests carried out by the Friedrich Loeffler Institute, which advises the government on animal diseases, had confirmed the disease in the swan which was found on Wednesday.

"We can confirm that this is the highly pathogenic strain," said the spokeswoman.

As a protective measure, authorities have sealed off an area of 3 km (1.9 miles) and a created a 10 km (6.2 mile) observation zone.

Dresden Zoo remains open but has confined its birds to cages, closed off visitor access to them and stepped up disinfection procedures. Poultry are being examined and the movement of cats and dogs in the area has been restricted.

H5N1 bird flu was discovered in wild birds in Germany in February and in domestic fowl in April.

Source: Reuters

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## Thai Bird Flu Case Suggests Under-Reporting in Fowl (Update2)

Aug. 4, 2006

A 17-year-old man who died of bird flu in Thailand last week, the country's first case this year, suggests the virus is being under-reported in poultry, the influenza team at the European Centre for Disease Surveillance and Control said.

The youth from a northern province was hospitalized on July 18 suffering fever, cough and headache and died six days later, the Thai Bureau of General Communicable Diseases said in a July 26 report. A week

before his symptoms appeared he buried 10 dead chickens, touching the carcasses with his bare hands. His phlegm tested positive for the H5N1 avian flu strain.

The case "could be an example of the phenomenon of a sentinel human already seen in other countries, where it is only the severe illness or death of a person from H5N1 that triggers detection or reporting of H5N1 in poultry," the team in Stockholm said in a report. "This suggests under-detection or under-reporting of poultry deaths."

Thailand widened the search for avian flu patients and improved surveillance for the virus in poultry as a result of the death of the youth. New cases create chances for H5N1 to mutate into a pandemic form and world health authorities are tracking the disease for signs it's becoming more contagious.

The virus is known to have infected 232 people in 10 countries, killing 134 of them. Most infections occurred in Asia through contact with birds. The disease may kill millions should it start spreading easily between people, researchers have said.

Thailand awaits laboratory tests on 259 people with respiratory symptoms, of whom 32 are from Pichit, the same province where the teenager died last week, the country's Bureau of General Communicable Diseases said on its Web site today.

So far this year, Thai health authorities have investigated more than 2,300 clinical influenza or pneumonia patients as part of routine surveillance. Only one was infected with H5N1.

Thai health officials recorded 65,100 cases of seasonal influenza in the first seven months of this year. Of those patients, 370 died, Thawat Suntrajarn, director general of the health ministry's disease control department, told reporters today in the capital, Bangkok.

"Our biggest concern is the outbreak of seasonal flu in Pichit, where the bird flu virus is still active" in poultry, and in nearby provinces, Thawat said. The initial symptoms of both avian and seasonal influenza are similar.

- Source: Bloomberg

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## Suspected bird flu cases cleared

Sat Aug 5, 2006



Public Health Ministry lab tests confirmed that three suspected bird flu cases in Lop Buri and Chachoengsao tested negative to the H5N1 bird flu virus, a senior ministry official said Friday.

Department of Disease Control director-general Dr. Thawat Suntrajarn said the nine-year-old girl who died in hospital in the central province of Thursday, as well as two patients with flu symptoms in hospital in Chachoengsao, were not infected with the H5N1 virus, but with Type A flu virus.

Dr. Thawat said the child did not have direct contact with chicken or other birds and, at the first stage, the cause of death was believed to be severe pneumonia.

The other two suspected cases were workers who slaughtered ducks in a processing factory, but they were raised under sanitary conditions and were free of the disease.

Moreover, there have been no suspicious deaths of poultry in the province.

Dr. Pajit Warachit, director-general of the Department of Medical Sciences said that provincial health offices have implemented preventive measures against bird flu.

Up till August 4, there have been 39 outstanding suspected cases awaiting lab test results, according to Dr. Pajit. (TNA)

- Source: Bangkok Post

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## Thai officials go door-to-door to prevent bird flu

7-Aug-2006 01:11

In an effort to prevent another deadly bird flu outbreak, Thai officials began visiting every home in 29 provinces to pass on information about preventing the virus.

Officials started knocking on doors in what authorities call "the red zone" to explain to locals how to protect themselves if they discover dead poultry, Charal Trinvuthipong, assistant to agricultural minister, told AFP.

Thailand on Saturday reported its 16th bird flu death. It was the kingdom's second such fatality this year and followed news that 300,000 chickens were slaughtered to stem a new outbreak in the northeast.

"Villagers know more about bird flu since the first two outbreaks but their basic knowledge is not complete," Charal said.

He said that the two people who died recently from the H5N1 strain had direct contact with dead chickens, as many people did not know what to do with deceased birds.

The red zone covers 29 provinces, mostly in the northeast and northwest of Thailand.

A 27-year-old man died of bird flu in the central province of Uthai Thani on Saturday. Officials said he buried a dead bird with his bare hands.

Thailand's first bird flu death this year was in late July, when a 17-year-old boy died after handling a dead fighting cock.

Thailand is among the countries hardest hit by the deadly H5N1 virus, recording 24 human cases, 16 of them fatal, since the country's first outbreak in 2004. — AFP

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- Source: TODAY Online - Singapore

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## H5N1 mutated rapidly in Indonesian cluster

Genetic studies show that the H5N1 avian influenza virus mutated multiple times as it spread through an Indonesia family in May, but the significance of the changes is uncertain, according to a news report today in Nature.

The journal, basing its report on confidential genetic sequence data, published a chart showing that a total of 32 mutations were identified in viruses collected from six patients in the family case cluster. Previous reports from the World Health Organization and other experts gave the impression that only a few mutations had been found.

The case cluster in North Sumatra involved a 37-year-old woman who apparently contracted the virus from poultry and then passed it to six relatives before she died. One of those six, a 10-year-old boy, then passed the virus to his father. WHO officials said last month that a specific mutation found in the boy and his father marked the first laboratory confirmation of human-to-human transmission of the virus.

On May 23, the WHO said genetic sequencing of two viruses from the case cluster had shown "no evidence of genetic reassortment with human or pig influenza viruses and no evidence of significant mutations." A month later, at the end of an avian flu conference in Jakarta, WHO officials told reporters

the virus had mutated slightly when it infected the 10-year-old boy, and the same mutation showed up in his father. The mutation didn't make the virus more transmissible or virulent, officials said.

The genetic data obtained by Nature came from a presentation by University of Hong Kong virologist Malik Peiris at a closed session of the Jakarta meeting in June, the article says.

The magazine says that 21 mutations were identified in a virus from the father of the 10-year-old boy, involving seven of the virus's eight genes, suggesting that the virus was evolving rapidly as it spread. In addition, from one to four mutations were found in viruses collected from five other patients.

The story says one of the mutations confers resistance to the antiviral drug amantadine, a finding not reported by the WHO.

However, the virus did not spread beyond the extended family, as the article notes. "Many of the genetic changes did not result in the use of different amino acids by the virus," the story says. "And there were no amino-acid changes in key receptor binding sites known to affect pathogenicity and transmissibility."

According to the magazine, viruses from six of the eight cases in the cluster have been sequenced, but the WHO has not shared the findings, saying they belong to Indonesia. The data have been released only to a few researchers linked to the WHO and the US Centers for Diseases Control and Prevention, the story says.

Virologists quoted by the journal asserted that the withholding of sequence data on H5N1 is hindering scientists' understanding of the virus. But WHO staff member Paul Gully replied, according to the article, that the agency's job is investigating outbreaks, not doing academic research, and that labs don't have the time or resources to do "high-quality sequencing" during outbreaks.

- CIDRAP News

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