

## NEWS

# Flu officials pull back from raising global alert level

The world last week seemed to edge closer to the brink of a flu pandemic. On 30 June, officials at the World Health Organization (WHO) revealed that they recently considered raising the threat level of a global pandemic, from the current 3 on a six-point scale, to 4 or even 5.

The scare was triggered a few weeks ago when several research groups visiting Vietnam filed preliminary reports that many people with mild cases of influenza — and those in contact with them — were testing positive for the deadly avian flu strain H5N1. This suggested that there was widespread human-to-human transmission of the virus.

Subsequent tests have so far failed to confirm this, and WHO spokesman Dick Thompson is keen to play down the incident. "It was just unpublished information provided to us in preliminary form that spurred an investigation," he says. "We thought about upgrading the alert. We looked at it fast and strongly, and based on that decided not to upgrade."

But take a closer look, and the picture in Vietnam is one of confusion rather than reassurance. The first signs of trouble came in May, with reports of small clusters of human cases of H5N1, including a rise in the infection of older people and an increase in milder cases — all signs consistent with the possibility that the virus had mutated to achieve improved, although still inefficient, human-to-human

spread (see *Nature* 435, 391; 2005).

Concern mounted in subsequent weeks as several international groups investigated the clusters using different methods, including the polymerase chain reaction (PCR), which amplifies DNA sequences, and western blots, which use antibodies to detect proteins. Despite using different tests, each of the teams reported that "substantial proportions" of the hundreds of people it had tested seemed to be infected with H5N1.

That led the WHO to consider upgrading the pandemic threat level to 4 (small, localized clusters of human infection) or 5 (large clusters of infection) — just one step away from a full-blown global pandemic. But first it asked an international team of experts, including Masato Tashiro, a virologist at the National Institute of Infectious Diseases in Tokyo, to retest many of the samples and some new ones, using the WHO's own PCR tests.

They found no evidence of clusters of human-to-human transmission. "This is good news," Tashiro says, relieved that his worst suspicions weren't confirmed. But it remains unclear why the various groups got different results.

Samples have now been sent to a WHO laboratory in Hong Kong for the last word in confirmation: antibody neutralization assays. These take time as they involve growing large amounts of the virus for analysis, but a firm

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Close to danger? A young boy feeds ducks, a source of the H5N1 flu virus, in Vietnam.

conclusion is expected by the end of the month.

In the meantime, the WHO is holding off raising the alarm. "Because of the consequences of such a change, the WHO is following a cautious approach," it said in a statement last week. Pushing the level to 4 for the first time would mean deploying the international stockpile of antiviral drugs to try to contain or stamp out the spread, and would probably result in countries restricting travel to Vietnam.

But Tashiro remains concerned that he and his colleagues didn't have enough time to check

## Infected birds poised to take flu virus south

Thousands of migratory birds infected with H5N1 avian flu virus at Qinghai Lake in western China pose a serious risk of spreading the disease to southeast Asia, India, Siberia, Australia and New Zealand when they fly home this September, scientists are warning.

The outbreak first hit the headlines in May (see *Nature* 435, 542–543; 2005). Before then, deaths from H5N1 in migratory birds were limited, and many suspected they were dead-end hosts that occasionally picked up infection from poultry. But the virus seemed to have mutated into a more virulent form, and within weeks more than

6,000 birds of five different species had died at the breeding site.

Late last month, the Chinese government finally allowed 17 experts from the World Health Organization (WHO) to visit part of the quarantined area. Although their movements were restricted and they were unable to meet or interview any local people, the scientists were allowed to take virus samples for testing.

DNA sequences of those samples by scientists from Hong Kong, China and the United States are published this week<sup>1,2</sup>. They confirm that the virus is a new form of H5N1, clearly

distinguishable from the strains seen in Vietnam and Thailand, and more closely related to variants isolated from poultry in China or Hong Kong. Experimental infection of mice and chickens also showed that the new variant is highly virulent<sup>2</sup> — comparable to the Vietnamese and Thai strains that have caused fatal human cases.

It is unclear how China will cope with such a huge outbreak. At a press conference in Beijing on 28 June, WHO officials complained that China had tested only a handful of birds from the five affected species, and none at all from the other 184 species present

at the lake, which could be acting as carriers. More than 100,000 birds will fly home from the lake in the next few months, and the officials urged China to implement large-scale testing along with a control strategy, possibly involving mass culling or vaccination of wild birds, before September. Experts are also still waiting for clearance from China to visit three subsequent outbreaks of the H5N1 virus in migratory birds in Xinjiang province, west of Qinghai. **D.B.**

1. Chen, H. et al. *Nature* doi:10.1038/nature03974 (2005).
2. Liu, J. et al. *Science* doi:10.1126/science.1115273 (2005).



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all of the clinical and epidemiological information associated with the initial lab samples. Follow-up work is also complicated by the fact that recovered patients have now returned home, making it hard to track down people they might have infected. "We still have a big problem collecting enough good data," he says.

Jeremy Farrar, director of the Wellcome Trust Clinical Research Unit at the Hospital for Tropical Diseases in Ho Chi Minh City, says that much of the uncertainty over the prevalence of H5N1 could be avoided if Vietnam had better facilities for testing samples locally. "The international community continues to suggest that countries ship samples out somewhere else," he says, "while doing absolutely nothing to invest in enhancing the scientific capacity of the Vietnamese to respond to the epidemics themselves."

In the meantime, Tashiro adds that even if final tests confirm his negative results, "the fundamental situation has not changed". Many are concerned that July and August will bring a new and bigger wave of flu cases in Vietnam, as happened last year during the hot rainy season. And recent events in China bode just as ill. Scientists investigating migratory birds infected with H5N1 in western China are now warning that these pose an explosive risk of spreading the virus along their migration routes as they fly south in September (see 'Infected birds poised to take flu virus south', opposite).

At a UN meeting on bird flu held this week in Kuala Lumpur, Malaysia, the WHO's western Pacific regional director, Shigeru Omi, warned that H5N1 remains at a "tipping point". ■

Declan Butler

## Climate change: is the US Congress bullying experts?

Last week, US Congressman Joe Barton, head of the House of Representatives' energy and commerce committee, wrote to three leading climate researchers, the head of the National Science Foundation and Rajendra Pachauri, chairman of the Intergovernmental Panel on Climate Change (IPCC). Barton asked for extensive information about their careers, funding and research.

The letters focused on a 1998 finding by Michael Mann of the University of Virginia, Charlottesville, that has been dubbed the 'hockey stick' graph because of its shape. Mann's study created headlines around the world when it suggested that the twentieth century was the warmest of the past millennium, and the 1990s was the warmest decade. The finding is central to the IPCC's most recent assessment of climate change.

Scientists have called the aggressive tone of the letters disturbing and dangerous (see page 1). They have accused Barton of attempting to bully climate researchers with whom he does not agree. *Nature* asked Pachauri for his reaction, and found him undaunted.

**What was your first thought when you read the letter?**

I was very surprised. This is the first time I have received a letter of this nature.

**Do you feel obliged to respond?**

I will first consult my colleagues in the IPCC. Over the next days we will decide whether and how to react. We might not do anything at all.

**What kind of information would you consider providing?**

I would not hesitate, out of courtesy, to provide basic information about how the IPCC functions and about the manner in which we choose our authors. This is a well established and absolutely transparent process. The only criteria are scientific merit and integrity. I don't think we need to provide more information than that. I guess it will be sufficient to mention the processes and procedures of the IPCC and to refer the committee to our website.

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Climate chief Rajendra Pachauri was surprised to receive a letter from a US House committee.

**Is it appropriate for a US House committee to make these demands?**

Yes, we're living in a democracy. But I don't know how anyone outside the scientific community would be able to make use of the information — it would take weeks or months to process all the information that is requested.

**Was it unwise to give Mann's 'hockey stick' so much prominence in the IPCC's summary for policy-makers?**

No. It is no exaggeration and it doesn't contradict the rest of the IPCC assessment. Of course you can always argue about details. But we assess all the available literature, and we found the hockey stick was consistent with that.

**Do you think individual scientists such as Mann need to be better protected against pressure from politicians?**

The IPCC cannot do that. But Mann and his colleagues are distinguished, independent scientists who are able to explain their points of view. These letters don't curb their independence. And the recipients don't need to provide all the information requested. By and large, I don't regard this as a threat to the scientific community. ■

Interview by Quirin Schiermeier