'Refusal to share' leaves agency struggling to monitor bird flu

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Tracking genetic changes in bird-flu viruses is vital for early warning of a human pandemic. But *Nature* has discovered that it is nearly eight months since the World Health Organization (WHO) last saw data on isolates from infected poultry in Asia. And from the dozens of patients who caught the deadly H5N1 strain this year, the WHO has managed to obtain just six samples.

Affected countries are failing, or refusing, to share their human samples with the WHO's influenza programme in Geneva. The UN Food and Agricultural Organization (FAO) set up a network of labs to collect animal samples last year, but it has not received any for months, and Michael Perdue, head of Animal Influenza Liaison at the WHO flu programme, complains that the FAO "hasn't been sharing" what it does have.

Such lack of cooperation is a key concern as anxiety about a possible pandemic increases. Human cases are beginning to appear in clusters, which suggests that people are transmitting the virus, older people are falling ill, and milder cases are being reported. Taken together, these trends suggest that the virus is becoming less virulent and more infectious — two characteristics typical of pandemic flu strains.

With so few samples to work on, it is impossible to judge how worried to be, says Klaus Stöhr, coordinator of the WHO's flu programme. "It's as if you hear a noise in your car engine, but you keep driving, not knowing whether it's serious."

Of the six human samples that the WHO has received from Vietnam, several contain a mutated version of H5N1. But that is not enough to indicate a broader change in the strain, says Perdue. It is also impossible for the agency to link this mutation of the virus to possible changes in how pathogenic and transmissible it is in humans. That would require molecular information on hundreds of viruses, and full clinical data on the cases from which they come. Such studies "aren't happening", says Stöhr.

Early signals that the virus is mutating might be picked up from viruses circulating in poultry. The FAO and the World Organisation for Animal Health (OIE) should be collecting samples, but a recent FAO check reveals that the agency has not been receiving any. The WHO's flu programme was last given access to a sample in October 2004, so it has no idea how the virus is changing in birds.

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Slim pickings: countries affected by avian flu are reluctant to release samples for outside analysis.

Sensitive samples

Some countries don't have the resources to collect, conserve and securely transport samples, says Joseph Domenech, head of the Animal Health Service at FAO headquarters in Rome (see *Nature* **433**, 102–104; 2005). "But things that should be happening are not," he adds. "Samples sometimes sit in labs," lacking authorization for export.

Countries are wary of sharing viruses with outside laboratories because they fear losing control over information, says one flu expert. "Authorities in Vietnam are very sensitive as to what they tell the people," he explains. "They don't want outside groups making pronouncements and these getting into the press without being vetted by the ministries of health and agriculture."

Scientists in countries with avian flu often want to work on virus samples first, he adds. They want to get credit for their work, he explains, and to use the data to develop their own vaccines.

One FAO consultant, who also asked not to be named, confirms there is a "time lag" in sharing what samples there are with the WHO. But he argues that the FAO and OIE are in a difficult position. "Some countries have provided samples but stipulated that the information can't be shared with the wider community," he says.

Domenech argues instead that the FAO has no recent samples to share. There has been "complacency" at national levels, he admits, adding that the FAO has now instructed its regional networks to redouble their efforts to acquire isolates. And the FAO and OIE are drafting a standard 'material transfer' agreement to clarify the conditions of use of flu samples, and the intellectual-property rights of the countries that provide them.

Meanwhile, the WHO has begun soliciting poultry samples directly from affected countries. Stöhr, Perdue and other WHO officials flew to Manila in the Philippines last week to meet government health representatives from Vietnam, Cambodia and Laos. The talks included presentations on the mutated human strains.

The meeting heard that Vietnam has recently agreed to ship a large number of poultry samples direct to the WHO flu centre at the US Centers for Disease Control and Prevention in Atlanta, Georgia. And Perdue is hopeful that other countries will follow: "The presentations drove home the importance and urgency of sharing data." ■