

Overseas briefs

World Health Organization Disease Outbreak News

This material has been summarised from information provided by the World Health Organization (<http://www.who.int>).

Poliomyelitis

Indonesia

30 September 2005

Eleven new poliovirus cases were confirmed today from Banten, Lampung and Central Java provinces. This brings the total number of poliovirus cases to 251.

Lampung and Central Java provinces were not included in two emergency vaccination campaigns held on 31 May and 28 June. The 1st round of the National Immunisation Days (NIDs) was held on 30 August; the 2nd round was conducted on 27 September, each time targeting 24.4 million children less than five years of age throughout the country.

Prior to this outbreak (caused by an importation of type 1 wild poliovirus), Indonesia had not had a wild poliovirus case since 1995.

Somalia

13 September 2005

One case of poliomyelitis has been reported in Mogadishu, Somalia where a 15-month-old girl had onset of paralysis on 12 July 2005. Genetic sequencing is ongoing to determine the origin of the virus. Somalia had been polio-free since 2002.

The Global Polio Eradication Initiative – spearheaded by the World Health Organization (WHO), Rotary International, the US Centers for Disease Control and Prevention and UNICEF launched an ambitious new series of polio immunisation campaigns to prevent the re-establishment of the disease in the Horn of Africa.

Ethiopia

6 September 2005

As of 31 August 2005, two new polio cases were reported in Ethiopia, bringing the total number of cases associated with this outbreak to 15 in 2005. One of the two new cases occurred in Oromia Province, in the centre of the country, near the border with Somalia and had onset of paralysis on 1 July 2005. The second case, in Amhara region, the north-western part of Ethiopia, had onset of

paralysis on 16 July. Both cases occurred after the National Immunisation Days (NIDs) held on 23 May.

Discussions were ongoing to advance the next NIDs to early October. Ethiopia had been polio-free since January 2001, before a poliovirus was imported into the country from neighbouring Sudan in December 2004.

Angola

25 August 2005

As of 23 August, seven cases of polio have been reported. Five provinces have been affected: the most recent case, in Benguela, had an onset of 12 July. This case occurred before the first National Immunisation Day (NID) campaign on 29 July.

A second NID was to be held on 26 August. In order to ensure rapid interruption of the virus transmission in Angola, a third round of NIDs was planned for late September 2005. The partners in the Polio Eradication Initiative in Angola have asked the international community for financial support to help them carry out this campaign.

Avian influenza

Indonesia

29 September 2005

The Ministry of Health in Indonesia has today confirmed another fatal human case of H5N1 avian influenza. The patient, a 27-year-old woman from Jakarta, developed symptoms on 17 September, was hospitalised on 19 September, and died on 26 September. Confirmatory testing was conducted at a WHO reference laboratory in Hong Kong.

Initial investigation has revealed that the woman had direct contact with diseased and dying chickens in her household shortly before the onset of illness. The woman is the fourth laboratory-confirmed case of H5N1 infection in Indonesia. Three of these cases were fatal.

As a result of intensified surveillance and heightened public concern, growing numbers of people with respiratory symptoms or possible exposure to the virus are being admitted to hospital for observation and, when appropriate, treatment. Until a conclusive diagnosis is made, these patients are classified by the Ministry of Health as suspect cases. While many do not have symptoms compatible with a diagnosis of H5N1 infection, screening of patient samples is being undertaken in national laboratories as part of efforts to ensure that no new cases are missed.

Laboratory testing to confirm human infection with H5N1 avian influenza is technically difficult; some tests produce inconclusive or unreliable results. To ensure a reliable assessment of the situation in Indonesia, authorities are, after initial screening, continuing to send samples from people considered likely to have H5N1 infection to WHO reference laboratories for diagnostic confirmation.

According to the Food and Agriculture Organization (FAO), highly pathogenic H5N1 avian influenza is now endemic in poultry in many parts of Indonesia. As influenza virus activity in Indonesia may increase during the wet season, from November to April, human exposure to animal virus could be greater during the coming months. Further sporadic human cases can be anticipated.

Viet Nam

19 September 2005

The Ministry of Health in Viet Nam has retrospectively confirmed an additional fatal case of H5N1 infection that dates back to July. The case, in a 35-year-old male farmer from Ben Tre Province, developed symptoms on 25 July and died on 31 July.

The newly confirmed case brings the total in Viet Nam since mid-December 2004 to 64 cases, of which 21 were fatal.

Geographical spread of H5N1 avian influenza in birds

Situation assessment and implications for human health

18 August 2005

Beginning in late July 2005, official reports to the OIE from government authorities indicate that the H5N1 virus has expanded its geographical range. Both Russia and Kazakhstan reported outbreaks of avian influenza in poultry in late July, and confirmed H5N1 as the causative agent in early August. Deaths in migratory birds, infected with the virus, have also been reported. Outbreaks in both countries have been attributed to contact between domestic birds and wild waterfowl via shared water sources.

These are the first outbreaks of highly pathogenic H5N1 avian influenza recorded in the two countries. Both countries were previously considered free of the virus.

In early August, Mongolia issued an emergency report following the death of 89 migratory birds at two lakes in the northern part of the country. Avian influenza virus type A has been identified as the cause, but the virus strain has not yet been determined. Samples have been shared with WHO reference

laboratories and are currently being investigated. Also in early August, an outbreak of H5N1 in poultry was detected in Tibet, China.

In all of these recent outbreaks, authorities have announced control measures in line with FAO and OIE recommendations for highly pathogenic avian influenza. To date, no human cases have been detected, vigilance is high, and rumours are being investigated by local authorities.

Very large die-offs of migratory birds from avian influenza, such as the one detected at the end of April at Qinghai Lake in central China, in which more than 6,000 birds died, are considered unusual. Research published in July indicates that H5N1 viruses in that outbreak are similar to viruses that have been circulating in South East Asia for the last two years.

Analyses of viruses from the Russian outbreak, recently published on the OIE website, show apparent similarity to viruses isolated from migratory birds during the Qinghai Lake outbreak. Specimens from the Mongolian outbreak in migratory birds should also prove useful in shedding light on these recent developments. Monitoring the spread and evolution of avian H5N1 viruses in birds and rapidly comparing these results with previously characterised H5N1 viruses is an essential activity for assessing the risk of pandemic influenza.

Implications for human health

The poultry outbreaks in Russia and Kazakhstan are caused by a virus that has repeatedly demonstrated its ability, in outbreaks in Hong Kong in 1997, in Hong Kong in 2003, and in South East Asia since early 2004, to cross the species barrier to infect humans, causing severe disease with high fatality. A similar risk of human cases exists in areas newly affected with H5N1 disease in poultry.

Experience in South East Asia indicates that human cases of infection are rare, and that the virus does not transmit easily from poultry to humans. To date, the majority of human cases have occurred in rural areas. Most, but not all, human cases have been linked to direct exposure to dead or diseased poultry, notably during slaughtering, de-feathering, and food preparation. No cases have been confirmed in poultry workers or cullers. No cases have been linked to the consumption of properly cooked poultry meat or eggs.

Pandemic risk assessment

The possible spread of H5N1 avian influenza to poultry in additional countries cannot be ruled out. WHO recommends heightened surveillance for outbreaks in poultry and die-offs in migratory birds, and rapid introduction of containment measures, as recommended by FAO and OIE. Heightened vigilance for cases of respiratory disease in persons

with a history of exposure to infected poultry is also recommended in countries with known poultry outbreaks. The provision of clinical specimens and viruses, from humans and animals, to WHO and OIE/FAO reference laboratories allows studies that contribute to the assessment of pandemic risk and helps ensure that work towards vaccine development stays on course.

The expanding geographical presence of the virus is of concern as it creates further opportunities for human exposure. Each additional human case increases opportunities for the virus to improve its transmissibility, through either adaptive mutation or reassortment. The emergence of an H5N1 strain that is readily transmitted among humans would mark the start of a pandemic.

Japanese encephalitis in India

13 September 2005

One thousand one hundred and forty-five cases of Japanese encephalitis have been reported from 14 districts of Uttar Pradesh Province, India from 29 July to 30 August 2005. About one-fourth of these (296) have died. Ninety cases from the adjoining districts of Bihar have also been admitted to the hospitals in Uttar Pradesh.

The majority of the affected villages have reported only single cases. Entomological surveys in the affected villages have revealed high density of *Culex tritaeniorhynchus* and *Culex vishnui* group – the vectors of Japanese encephalitis.

Outbreak associated with Streptococcus suis in pigs in China

3 August 2005

To date, the Ministry of Health in China has reported 206 cases of human disease associated with an outbreak of *Streptococcus suis* in pigs. Of these human cases, 38 have been fatal and 18 patients are critically ill.

Virtually all cases have occurred in Sichuan Province, where infections with *Streptococcus suis* have been detected in pigs in a concurrent outbreak. The province has one of the largest pig populations in China.

Investigation and containment of the outbreak have been given high priority by Chinese authorities. The country's ministries of health and agriculture are working in close collaboration, and WHO and FAO are being promptly informed of new developments.

Investigations conducted by Chinese epidemiologists indicate that the first human cases occurred at the end of June in Ziyang City, Sichuan Province. Cases have since been reported in 11 prefectures in Sichuan Province. Most cases reported have occurred in adult

male farmers. Information reported to WHO suggests that close contact with diseased or dead pigs is the principal source of human infection.

Symptoms reported by local clinicians include high fever, malaise, nausea, and vomiting, followed by meningitis, subcutaneous haemorrhage, toxic shock, and coma in severe cases. The incubation period is short and disease progression is rapid.

Local experts are conducting active searches for further cases. To date, Chinese authorities say they have found no evidence of human-to-human transmission.

The outbreak in humans has some unusual features and is being closely followed by WHO. Diagnostic testing to further characterise the causative agent is recommended as an essential part of ongoing efforts to understand this outbreak, ensure its rapid containment, and prevent further deaths.

Pro-MED-mail

This material has been summarised from information provided by ProMED-mail (www.promedmail.org).

Poliomyelitis – Yemen

Source: Adnkronos International 22 August 2005
[edited]

Health officials in Yemen say they have detected around 50 new cases of polio, on top of the 369 cases already confirmed in the country.

The new cases were discovered in three provinces where parents refused to let their children be vaccinated because of a lack of confidence and lack of awareness about how dangerous the disease is. Many families are sceptical because the outbreak of the potentially fatal disease began following a routine national immunisation programme.

The Ministry of Public Health and Population launched a 2-day campaign, sending out 34,580 health workers to go door-to-door, immunising some 4 million children aged under five years. Each house where children have been immunised will be marked, and special ink will be put on the fingernails of every immunised child.

The World Health Organization declared Yemen polio-free in 1996. Only six countries in the world are considered polio-endemic: Nigeria, India, Pakistan, Niger, Afghanistan and Egypt. It is thought the disease may have spread from Nigeria to 12 other African countries, including Sudan.

Meanwhile, Saudi Arabia is putting stricter measures into place ahead of the Hajj pilgrimage in January, to stop the disease spreading there. All children under 15 travelling to the holy city of Mecca

from the 19 countries considered most 'at risk' will be immunised on the spot. Every year more than 2 million pilgrims travel to Saudi Arabia to take part in the pilgrimage, which all fit, healthy Muslims are expected to undertake at least once in their lives.

More than 1,050 children are reported to have been paralysed by polio so far in 2005 alone, mostly in Nigeria. According to the most recent information available on the polio eradication website, 453 of the 1,053 cases reported as of 16 August 2005 were from Nigeria, representing 43 per cent of cases reported this year.

Creutzfeldt-Jakob disease (new variant) update 2005

United Kingdom: vCJD monthly statistics

Source: UK Department of Health, Monthly Creutzfeldt-Jakob Disease Statistics, Press release number 2005/0310, 5 September 2005 [edited]

The Department of Health issued the latest information about the number of known cases of Creutzfeldt-Jakob disease. This includes cases of variant Creutzfeldt-Jakob disease. The position is as follows:

Summary of vCJD cases – deaths

Deaths from definite vCJD (confirmed): 108

Deaths from probable vCJD
(without neuropathological confirmation): 42

Deaths from probable vCJD (neuropathological confirmation pending): 0

Number of deaths from definite or probable vCJD
(as above): 150

Summary of vCJD cases – alive

Number of probable vCJD cases still alive: 7

Total number of definite or probable vCJD cases
(dead and alive): 157

Since the previous monthly statistics were released on 2 August 2005, the total number of deaths from definite or probable vCJD remains unchanged at 150. The number of probable vCJD cases still alive remains unchanged at seven cases. Therefore, the overall total number of definite or probable vCJD cases (dead and alive) remains unchanged at 157.

These data are consistent with the view that the vCJD outbreak in the United Kingdom (UK) is now in decline. The number of deaths due to definite or probable vCJD in the UK during the first eight months of 2005 remains at two. The number of deaths was 28 in the year 2000, followed by 20 in 2001, 17 in 2002, 18 in 2003, and 9 in 2004.

The number of definite or probable vCJD cases in the UK is now 157, followed by France with 13, Ireland 2, and Italy, the Netherlands, Portugal and Spain with single cases. Single cases have been confirmed also in Canada, Ireland, Japan and the USA, involving patients with periods of residence in the UK and who are presumed to have contracted infection in the UK. The Japanese case is exceptional in that the patient may have spent less than one month in the UK.

In addition, the US National Prion Disease Pathology Surveillance Centre confirmed a vCJD diagnosis by analysing a brain biopsy sample from a 33-year-old Saudi man admitted to a hospital in Saudi Arabia. Although detailed information on this patient was not available, he may have visited the United Kingdom, if at all, only for several days. Thus, the patient may have contracted the disease in Saudi Arabia after eating BSE-contaminated cattle products imported from the United Kingdom.

The occurrence of the first suspected human case of vCJD in Spain is not unexpected, since the risk of contracting vCJD appears to be linked to the amount of bovine meat consumed or extent of exposure to bovine products. According to the latest figure compiled by the European Union and the OIE, Spain ranks fifth in the world in terms of the number of BSE-affected cattle (532), after France with 946, Portugal with 949, Ireland with 1,470, and the UK with 184,138. However, in 2005, Spain, with 42 cases, ranks second after the UK with 126 cases, followed by Ireland with 29, Portugal with 17, and France with two cases of BSE.

Influenza viruses, drug resistance

Source: Reuters UK, 30 September 2005 [edited]

A strain of the H5N1 avian influenza virus that may unleash the next global flu pandemic is showing resistance to Tamiflu, the antiviral drug that countries around the world are now stockpiling to fend off the looming threat. Experts in Hong Kong said that the human H5N1 strain which surfaced in northern Viet Nam this year had proved to be resistant to Tamiflu, a powerful antiviral drug.

They urged drug manufacturers to make more effective versions of Relenza, another antiviral that is also known to be effective in battling the much-feared H5N1. Relenza is inhaled, whereas Tamiflu is taken orally. Viral resistance to Tamiflu is growing in Japan, where doctors prescribe the drug to fight common influenza.

Reports in *The Lancet* this month said that resistance to anti-influenza drugs was growing worldwide. In places such as China, drug resistance exceeded 70 per cent, suggesting that drugs like amantadine and rimantadine will probably no longer be effective for treatment or as a preventive in a pandemic outbreak of flu, the reports said.