# Overseas briefs

**For the period 1 April to 30 June 2006**

## World Health Organization Disease Outbreak News

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

### *Avian influenza – epidemiology of human H5N1 cases reported to WHO*

*30 June 2006*

This week's issue of the *Weekly Epidemiological Record,*[1] published online by the World Health Organization (WHO), sets out results from the first analysis of epidemiological data on all 205 laboratory-confirmed H5N1 cases officially reported to WHO by onset date from December 2003 to 30 April 2006.

- Data used in the analysis were collected for surveillance purposes. Quality, reliability and format were not consistent across data from different countries. Despite this limitation, several conclusions could be reached.
- The number of new countries reporting human cases increased from four to nine after October 2005, following the geographical extension of outbreaks among avian populations.
- Half of the cases occurred in people under the age of 20 years; 90 per cent of cases occurred in people under the age of 40 years.
- The overall case-fatality rate was 56 per cent. Case fatality was high in all age groups but was highest in persons aged 10 to 39 years.
- The case-fatality profile by age group differs from that seen in seasonal influenza, where mortality is highest in the elderly.
- The overall case fatality rate was highest in 2004 (73%), followed by 63 per cent to date in 2006, and 43 per cent in 2005.
- Assessment of mortality rates and the time intervals between symptom onset and hospitalisation and between symptom onset and death suggests that the illness pattern has not changed substantially during the three years.
- Cases have occurred all year round. However, the incidence of human cases peaked, in each of the three years in which cases have occurred, during the period roughly corresponding to winter and spring in the Northern Hemisphere. If this pattern continues, an upsurge in cases could be anticipated starting in late 2006 or early 2007.

A more standardised collection of epidemiological data by countries and timely sharing of these data are needed to improve monitoring of the situation, risk assessment, and the management of H5N1 patients.

**Reference**

World Health Organization. Epidemiology of WHO-confirmed human cases of avian A(H5N1) infection. *Wkly Epidemiol Rec* 2006;81:249–260.

### *Avian influenza – situation in Indonesia – update 20*

*20 June 2006*

The Ministry of Health in Indonesia has confirmed the country's 51st case of human infection with the H5N1 avian influenza virus.

The case, which was fatal, occurred in a 13-year-old boy from South Jakarta. He developed symptoms on 9 June one week after helping his grandfather slaughter diseased chickens at the family home. The boy was hospitalised on 13 June and died on 14 June. The grandfather remains healthy. Contact tracing and monitoring are under way to ensure no further cases arise from this exposure setting.

Of the 51 cases confirmed to date in Indonesia, 39 have been fatal.

**Expert consultation**

WHO, FAO, and the Indonesian Ministries of health and agriculture jointly convened an expert consultation in Jakarta from 21 to 23 June. The consultation was held, at the request of the government's national commission on avian influenza and pandemic influenza, to assess the avian influenza situation in poultry and humans.

The consultation, was to be attended by more than 40 national and international experts, and would review measures for addressing the widespread presence of the virus in poultry and offer advice on strategies for reducing the number of human cases. The experts were to also examine epidemiological and virological data collected during a month-long investigation of a cluster of cases among family members in the Kubu Simbelang village of North Sumatra.

More than three weeks (two times the maximum incubation period) have passed since the last case in the cluster died on 22 May. Daily house-to-house monitoring for influenza-like illness was conducted throughout the village and in health care facilities where patients were treated, and no further cases were detected. While these findings indicate no significant changes in the epidemiology of the disease, results from investigation of the cluster will be reviewed as they may yield lessons useful in the investigation and interpretation of other large clusters where human-to-human transmission is suspected.

Several viruses have been isolated from the seven confirmed cases in the cluster and these have been fully sequenced at WHO reference laboratories in Hong Kong and the USA. Experts from these laboratories will be presenting their findings for review during the consultation.

## *Cholera*

**Sudan – update**

*21 June 2006*

Between 21 April and 18 June 2006, the Federal Ministry of Health (FMoH) has reported a total of 2,007 cases, including 77 deaths (case fatality rate, CFR=3.8%), of acute watery diarrhoea in 9 of the 15 states in northern Sudan. Of these cases 35.3 per cent (CFR=4.9%) occurred in Khartoum state, while 26 per cent occurred in North Kordofan state. The overall CFR during this period was 3.8 per cent.

The National Public Health Laboratory of the FMoH confirmed the isolation of *Vibrio cholerae* 01 Inaba in 70 of the 139 stool samples (50%) collected so far from these states.

The FMoH has formed a task force, including UNICEF and WHO, to coordinate the overall response to the epidemic. WHO is also supplying diarrhoeal disease kits as well as laboratory supplies for the collection of samples and enteric disease bacteriology kits for establishing field laboratories to increase laboratory surveillance capacities in several affected states.

Between 28 January and 14 June 2006, a total of 16,187 cases, including 476 deaths (CFR=3%), of acute watery diarrhoea has been reported in 8 out of 10 states in southern Sudan (see previous report). *Vibrio cholerae* 01 Inaba has been laboratory confirmed in several stool samples by African Medical and Research Foundation (AMREF) laboratories in Nairobi.

A task force under the Ministry of Health of the Government of Southern Sudan (MOH/GoSS), including the FMoH, WHO, other UN and non-governmental partners has been established to coordinate the overall public health response. Several control measures are being implemented to contain the outbreak: strengthening the surveillance and reporting system, standardising case management and promoting health education and hygiene, with the chlorination of public water supplies.

## *Cholera*

**Angola – update**

*21 June 2006*

As of 19 June 2006, Angola has reported a total of 46,758 cases including 1,893 deaths with an overall (case fatality rate, CFR 4.0%). Fourteen of the 18 provinces were affected; of all cases, 49 per cent occurred in Luanda and 17 per cent in Benguela provinces. The CFR, broken down by province, ranges between 1 and 30 per cent.

Although current trends show a decline in most provinces, a daily incidence of around 125 cases was still being reported.

A plan of action for cholera has been drawn up and agreed upon by all partners at country level, for short, medium and long-term response to the outbreak.

WHO was sending Interagency Diarrhoeal Disease Kits to the most affected provinces and continues to support the Ministry of Health in its surveillance, water and sanitation, social mobilisation and logistics activities.

## *Plague in the Democratic Republic of the Congo*

*14 June 2006*

As of 13 June 2006, WHO has received reports of 100 cases of suspected pneumonic plague, including 19 deaths in Ituri District, Oriental Province. Suspected cases of bubonic plague have also been reported but the total number is not known at this time. Preliminary results from rapid diagnostic tests in the area confirm pneumonic plague. Additional laboratory analysis, including tests by culture, is ongoing on 18 samples.

Ituri is known to be the most active focus of human plague worldwide, reporting around 1,000 cases a year. The first cases in this outbreak occurred in a rural area, in the Zone de Santé of Linga, in mid-May.

A team from Médecins sans Frontières (Switzerland), WHO and the Ministry of Health has been in the area to assess the situation and provide support to the local health authorities. Isolation wards have been established to treat patients; close contacts are being traced and receiving chemoprophylaxis. However, control measures have been difficult to implement because of security concerns in the area.

## *Polio – world update*

*Source: June 2006 Monthly Situation Report, Global Polio Eradication Initiative [edited]*

*Data as at 21 June 2006*

**Nigeria**

In 2006, 467 cases of polio have been reported to June, compared to 168 cases for the same period in 2005. Five states – Bauchi, Jigawa, Kaduna, Kano and Katsina – account for 86 per cent of the national caseload.

**India**

Fifty-three cases of polio have been reported in 2006 (compared with 18 for the same period in 2005). Two of the cases are from Madhya Pradesh (first case since 8 November 2003) and Jharkhand (first case since 9 October 2005). However, since the beginning of the year, polio transmission is increasingly restricted compared with the previous year, to key districts of western Uttar Pradesh and Bihar. Moradabad District in Uttar Pradesh accounts for 22 of the 53 cases nationwide this year.

**Pakistan and Afghanistan**

In Pakistan, six cases of polio have been reported this year, compared with 10 for the same period last year. In Afghanistan, 13 cases have been reported this year, compared with three for the same period last year. Two of the cases are in the provinces of Uruzgan and Zabul, previously unaffected by polio.

**Namibia**

Four cases of an outbreak of acute flaccid paralysis in Namibia were virologically confirmed to be wild poliovirus type-1. Genetic sequencing has determined that the virus is of Indian origin and was imported from Angola, which reported 10 cases in 2005 (most recent case November 2005). An international and regional rapid response team is assisting the government and a response activity using mOPV1 started on 21 June, the first of three nationwide rounds. The majority of the more than 100 suspected cases are adults, and 15 have died. Namibia began routine immunisation for polio in 1990; the cause of the largely adult outbreak is yet to be determined. The paralysis-to-infection rate of poliovirus is higher among adults than in children, as is the fatality rate.

**Bangladesh**

An additional two cases of polio were reported in Bangladesh (onset of paralysis on 23 January and 14 April, i.e. prior to the NIDs), bringing the total since the initial importation of polio to three. The new cases are in the centre of the country and on the western border with India.

**Myanmar**

A polio case originally reported as wild poliovirus has been genetically found to be a vaccine-derived poliovirus. No further cases have been reported, despite strengthened disease surveillance.

**Somalia and Ethiopia**

In Somalia, 25 cases of polio have been reported in 2006. Polio appears to be on the decline in Mogadishu, formerly the epicentre of the outbreak. The risk of further spread across the Horn of Africa remains high. In Ethiopia, three cases have been reported this year, in Somali and Amhara regions.

## ProMED-mail

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

## *Botulism from home-canned bamboo shoots, Thailand*

*Source:* MMWR *2006; 14 April; 55:389–392 [edited]*

On 14 March 2006, an annual religious rite was observed in Nawaimai village, Pakaluang sub-district, Baan Luang district, Nan province. Villagers from Pakaluang and neighbouring sub-districts joined the event. That day, several persons who attended the festival visited local health-care providers with symptoms of gastroenteritis. Personnel from the Ministry of Public Health Field Epidemiology Training Program (FETP) were notified of a possible foodborne outbreak on 15 March 2006. Illnesses progressed to include bulbar muscle paralysis, with respiratory depression requiring ventilatory support in three patients, at which time a botulism outbreak was suspected. A quick door-to-door survey conducted by village volunteers identified 354 villagers who had attended the event, of whom 200 (56%) ate food served at the event.

Of the 163 persons with illness, 141 (86.5%) were admitted to area hospitals. All 141 hospitalised patients and 10 patients treated as outpatients were systematically queried about their symptoms.

The majority of those patients experienced abdominal pain (116; 76.8%), dry mouth (76; 50.3%), and nausea (76; 50.3%); some had dysphagia (52; 37.7%), vomiting (53; 35.1%), diplopia (26; 17.2%), ptosis (16; 10.6%), and weakness of extremities (14; 9.3%). Forty-two (29.8%) of the hospitalised patients required mechanical ventilation.

Home-canned bamboo shoots were the only item eaten by 100 per cent of affected persons, although bamboo shoots were routinely consumed with the chilli and shrimp paste. The bamboo shoots had been produced locally by a women's group in the village. The shoots had been processed in 20 litre cans with approximately 13 kg of shoots per can. A total of 53 cans were produced during September 2005; 46 cans were sold during September 2005 to February 2006, primarily in the district where they were made. As of 10 April 2006, a total of 25 patients remained hospitalised, and 9 (36%) were still on respirators. No patients had died.

## *Measles in Europe*

*Source: Eurosurveillance weekly release, 15 June 2006. [Edited]*

An outbreak of measles in children and young people has been occurring since the beginning of January 2006 in the German state of Nordrhein-Westfalen, and consequently, several governmental agencies in countries throughout Europe, and the WHO Pan American Health Organization, are advising travellers to Germany, especially football fans and people travelling to this state, to ensure that they have had measles vaccination before their trip. Three of the 12 cities where matches are being played are located in Nordrhein-Westfalen (Köln/Cologne, Dortmund and Gelsenkirchen), although sporadic measles cases only have been reported in these cities.

The latest cumulative total of notified measles cases in the Nordrhein-Westfalen outbreak now stands at 1,452 (an incidence in the state of 8/100 000 inhabitants). Most cases have been reported in children and young people. Although this number is still increasing, the weekly reported case numbers are falling, from a peak of 151 cases in April (week 17, 2006) to fewer than 50 per week currently. This outbreak has so far resulted in four cases of measles encephalitis and one case of measles meningitis.

There are also ongoing outbreaks of measles in a number of other European countries, the largest being in the Ukraine, where it is affecting mainly young adults, and the case total exceeded 20,000 at the end of February 2006. The Ukrainian national football team is one of the 32 World Cup qualifying teams and Ukrainian fans have travelled to Germany to attend matches. The Ukrainian team's first match took place on 14 June in Leipzig, eastern Germany.

## *Mumps*

*Source: MMWR Dispatch 18 May 2006/55 (Dispatch);1–5 [edited]*

The Centers for Disease Control and Prevention and state and local health departments continue to investigate an outbreak of mumps that began in Iowa in December 2005 and involved at least 10 additional states as of 2 May 2006.

During the period 1 January to 2 May 2006, 11 states reported 2,597 cases of mumps. Eight states (Illinois, Iowa, Kansas, Missouri, Nebraska, Pennsylvania, South Dakota, and Wisconsin) reported mumps outbreaks with ongoing local transmission or clusters of cases; three states (Colorado, Minnesota, and Mississippi) reported cases associated with travel from an outbreak state. The majority of mumps cases [1,487 (57%)] were reported from Iowa; states with the next highest case totals were Kansas (371), Illinois (224), Nebraska (201), and Wisconsin (176). Of the 2,597 cases reported overall, 1,275 (49%) were classified as confirmed, 915 (35%) as probable, and 287 (11%) as suspect. The classification for 120 (5%) cases was unknown. Twelve mumps viral isolates from six states were characterised; all were mumps genotype G.

As of 10 May, a total of 11 persons potentially infected with mumps who travelled by aircraft during 26 March to 25 April, had been identified on 33 commercial flights operated by eight different airlines. Notifications had either been initiated or completed for persons potentially exposed on all identified flights. As of 12 May, of about 575 persons potentially exposed on the flights, 132 had received follow-up greater than 25 days after their potential exposure. Two cases of mumps were identified, possibly associated with transmission during air travel. Both cases occurred among Iowa residents, one of whom was a travelling companion of a person known to have mumps.

## *Chikungunya in the Indian Ocean – genetic analysis*

*Source: Public Library of Science Medicine, Editors' Statement, 23 May 2006 [edited]*

Since late 2004, a large outbreak of chikungunya fever has been taking place in the Indian Ocean. For example, on the island of Reunion, approximately one third of the total population of 770,000 were reportedly infected by April 2006. Sylvain Brisse and 22 colleagues report the first molecular analysis of the chikungunya viruses involved in the outbreak. The complete genome sequence of viral isolates from six patients and partial sequences of isolates from 121 patients at different stages and locations of the outbreak reveal unique and evolving genetic features.

The authors report the nearly complete genome sequence of six selected viral isolates (isolated from five sera and one cerebrospinal fluid), along with partial sequences of glycoprotein E1 from a total of 127 patients from Reunion, Seychelles, Mauritius, Madagascar, and Mayotte islands. Results indicate that the outbreak was initiated by a strain related to East-African isolates, from which viral variants have evolved following a traceable micro-evolution history. Unique molecular features of the outbreak isolates were identified. The authors conclude that unique molecular features of the analysed Indian Ocean isolates of chikungunya virus demonstrate their high evolutionary potential and suggest possible clues for understanding the atypical magnitude and virulence of this outbreak.

**Reference**

Genome microevolution of chikungunya viruses causing the Indian Ocean outbreak. *PLoS Medicine* 2006;3 No. 7.

## *Crimean-Congo haemorrhagic fever in Russia*

*Source: Ami-Tass News Agency, 14 June 2006 [edited]*

As of 8 June 2006, 50 cases of Crimean-Congo haemorrhagic fever (CCHF) have been registered in the Southern Federal District of Russia, including four fatal cases. The first cases of CCHF were registered in the middle of April 2006 in Stavropol region, and in the beginning of May in the Republic of Kalmykia and the Rostov region.

In 2006 there has been a marked expansion in the distribution of CCHF cases: new cases have been detected where no cases have been observed in recent years. Consequently, late recognition of the disease and late referral for medical attention have resulted in severe manifestation of the disease.

Most cases occurred during care of agricultural animals in private facilities. It is especially important to undertake preventive treatment of animals against tick infestation. However, due to insufficient allocation of finances for these purposes, fewer than 50 per cent of animals had been protected against ticks by the end of May 2006.