

OVERSEAS BRIEFS

The Overseas briefs highlights disease outbreaks during the quarter that were of major public health significance world-wide or those that may have important implications for Australia and now includes an update on the global HIV epidemic.

Reporting period 1 January to 31 March 2007

Avian influenza

The number of cases of human H5N1 confirmed by the World Health Organization (WHO) during the first quarter of 2007 was similar to the same period in 2006. The WHO confirmed 39 cases (case-fatality rate, CFR 61.5%)¹ with dates of onset between 1 January and 31 March 2007, compared with 58 cases (CFR 55.2%)² during the same period in 2006. Indonesia continues to have the highest number of cases, with 19 confirmed cases (CFR 84.2%) between 1 January and 31 March 2007.¹

There was no evidence of human-to-human transmission of avian influenza during the reporting period. The source of infection for many of the Indonesian cases is still being investigated due to their late confirmation (16 May 2007), but contact with backyard poultry has been established for 15 of the 20 cases from other countries (China, Egypt, Laos and Nigeria).¹

Chikungunya

Between 1 January and 31 March 2007, continuing outbreaks of chikungunya fever were reported from India,³ Indonesia⁴ and Sri Lanka.⁵ In addition, imported cases of chikungunya fever were reported from France (1 case)⁶ and Malaysia (47 cases).⁷ These cases were linked to India and Madagascar respectively, which are known to have endemic chikungunya. There were no reports of fatal cases of chikungunya fever during the quarter.

Cholera

During the reporting period, new and continuing outbreaks of cholera or watery diarrhoeal syndrome were reported from India, Malaysia, the Solomon Islands and the African nations of Angola, the Congo, Cote d'Ivoire, the Democratic Republic of the Congo, Djibouti, Ethiopia, Kenya, Liberia, Namibia, Nigeria, Senegal, Sierra Leone, Somalia, the Sudan, Tanzania, Uganda, Zambia and Zimbabwe.⁸ Cholera is considered to be endemic in all of these areas.

Dengue fever

Health alerts were declared in the South American nations of Brazil, Paraguay and Bolivia during the reporting period after outbreaks of dengue fever in these and other South American countries. Argentina has also been affected but to a lesser extent.⁹ Dengue fever is not uncommon in South America, but unusually high rainfall and warmer weather has provided favourable breeding conditions for mosquito populations.

Paraguay was the most affected country in the outbreaks. Between 1 January and 9 April 2007, the Pan American Health Organization (PAHO) reported 25,000 cases of dengue fever including 13 deaths from dengue haemorrhagic fever.¹⁰ The most affected departments were Capital, Cordillera, Amambay, Central, Concepcion and Paraguari. Peak incidence occurred in epidemiological weeks 8 and 9 (18 February to 4 March 2007).¹⁰

Human immunodeficiency virus

This information is sourced from the annual update of Joint United Nations Programme on HIV/AIDS (UNAIDS)¹¹ unless otherwise indicated.

The prevalence and incidence of human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) world-wide are increasing. The Joint United Nations Programme on HIV/AIDS estimates that there were 39.5 million people living with HIV world-wide in 2006 including 4.3 million new infections, compared with 36.9 million cases including 3.9 million new infections in 2004.

Sixty-three per cent of the world-wide cases of HIV in 2006 were from sub-Saharan Africa according to UNAIDS. Swaziland has the highest adult prevalence (the prevalence in people aged 15 years or over) of HIV in the world (33.4%) followed by Botswana, Lesotho and Namibia (adult prevalence in each of these countries is 20%-24%). HIV prevalence varies between the 3 regions of sub-Saharan Africa. Southern Africa has the highest prevalence, with only Zimbabwe showing a trend of decreasing prevalence. In East Africa there was a general trend of stabilising or declining prevalence (to <10% in most countries) and West Africa had the lowest prevalence in sub-Saharan Africa (<5% in every nation).

UNAIDS estimates that 8.6 million people were living with HIV in Asia in 2006, including 960,000 new infections. South East Asia had higher levels of infection than the rest of the region. In South East

Asia, the highest risk factors for HIV infection were unprotected paid sex, unprotected sex between men who have sex with men and unsafe drug injecting practices. The number of people in Vietnam who were living with HIV doubled to 260,000 between 2000 and 2005, with 40,000 new cases each year, the majority of them injecting drug users or people who buy or sell sex. In Thailand however, where UNAIDS estimated that 580,000 people were living with HIV in 2005, the prevalence has stabilised and many new cases occurred in formerly low risk populations such as married women. In 2005, HIV prevalence in the Philippines remained at less than 0.1% and Indonesia had 170,000 people living with the infection.

In Oceania, UNAIDS estimates that 81,000 people were living with HIV in 2006 including 7,100 new infections. Three-quarters of these cases were in Papua New Guinea where adult prevalence was estimated to be 1.8%¹¹ compared with <0.1% in Australia.¹² HIV infection in Papua New Guinea seemed to be associated with heterosexual sex. HIV infections in women aged 15-29 years were twice as high as amongst men of the same age. According to UNAIDS, high rates of transactional sex, low levels of condom use, early sexual debut, widespread sexual violence against women, and frequent concurrent sexual partnerships have all contributed to the epidemic. Island nations such as Fiji, Kiribati, the Samoa, the Solomon Islands and Vanuatu have reported few cases (<300 cases each since reporting started), but risk factors exist which could lead to increasing incidence, with high proportions of men paying for sex and men having sex with men.

Measles

World-wide measles vaccination levels increased from 71% to 77% in the period 1999 to 2005, resulting in a 60% drop in the number of measles deaths.¹³ A new target set by the WHO in partnership with other international agencies, aims to reduce measles deaths by 90% by 2010 compared with 1999 levels, primarily by ensuring a second dose of vaccine is received by all children shortly after the first.¹⁴

There are still major outbreaks of measles in some countries despite the progress that has been made in reducing measles deaths world-wide. During the first quarter of 2007, outbreaks of measles were reported from China, Japan, Kenya, Kuwait, North Korea, the Russian Federation, Scotland, Serbia and Spain.

In the month of February 2007, China reported 9,500 cases of measles, 68% more cases than were reported in the same period last year.¹⁵ Measles outbreaks in the United States of America and Europe have been associated with the entry of adopted Chinese children into those areas.¹⁶

WHO Indonesia estimates that measles causes 30,000 deaths in children per year in Indonesia and that 1.2 million children in the country do not receive adequate measles immunisation.¹⁷ The Government of Indonesia began a mass immunisation campaign on 20 February 2007 targeting 13 million children on the island of Java.¹⁸

The WHO estimates that in 2005, 86% of one-year-olds in China and 72% in Indonesia had received one dose of measles vaccine, which compares poorly with one-dose vaccination rates in Australia (94%) and Vietnam (95%).¹⁹

Meningococcal disease

The WHO states it is highly likely that a new epidemic wave of meningitis will emerge in Africa in the coming years.²⁰ The 2006 epidemic season saw a significant increase in meningitis outbreaks across the African meningitis belt, where outbreaks of meningococcal disease are common during the dry season (December to June).²¹ In early 2007, the trend of an increasing number of outbreaks continued. Between January and March 2007, the WHO reported major outbreaks of meningococcal disease from Burkina Faso, the Sudan, and Uganda, with minor outbreaks occurring in Cote d'Ivoire and the Democratic Republic of the Congo.

Burkina Faso had major outbreaks of meningococcal in 2006. More cases were reported in the first quarter of 2007 than previously reported for any full year since 1997.²² Between 1 January and 8 April 2007, the WHO confirmed 22,255 cases (CFR 7%).²³ By 8 April 2007, 34 of 55 districts in the country had crossed the epidemic threshold (10 cases per 100,000 population).²³ Where antibiotics and hospital care are available, CFRs for meningococcal disease are expected to be between 8% and 15%,²⁴ so the CFR of the Burkina Faso cases is not unusual.

Mumps

Between early February and early April 2007, Canada reported 32 laboratory-confirmed cases of mumps from Nova Scotia.^{25,26} Most cases were aged 19-30 years and many were students of one university.²⁷ Health authorities are concerned about the disease spreading to other areas when the students return home for the summer break.²⁸ This is the third outbreak in Nova Scotia in 3 years.

Poliomyelitis

Only Afghanistan, India, Nigeria and Pakistan have never interrupted wild poliovirus transmission.²⁹ However, case numbers this year in these endemic countries indicate progress has been made towards eradicating polio, with only half as many

cases reported between 1 January and 3 April 2007 (66 cases) as in the same period of 2006 (128 cases).²⁹ During this period, 14 cases of polio were reported from 3 re-infected countries: Somalia (5), Democratic Republic of the Congo (7) and Niger (2).²⁹

One of the cases reported from India was a type 1 wild poliovirus case (the type most often associated with serious cases of paralysis²⁹) from Bihar State where transmission of wild poliovirus type-one is ongoing. But worldwide in 2007, for the first time ever, the number of wild poliovirus type 1 cases is fewer than type 3 cases, demonstrating the effectiveness of the monovalent oral polio type 1 vaccine that is in widespread use.³⁰

Rift Valley fever

Outbreaks of Rift Valley fever (RVF) were reported from Kenya, Somalia and Tanzania between mid-December 2006 and March 2007. The first of these outbreaks of RVF was reported from the Garissa district in Kenya's North East Province in mid-December 2006,³¹ followed by Somalia in late December 2006 and Tanzania in February 2007.

Kenya and Somalia

The outbreaks of RRVF in Kenya and Somalia appear to have slowed, with no reports of new cases since mid-February 2007. Between 30 November and 12 March 2007, the WHO reported 684 cases (CFR 23%) from Kenya.³² The North Eastern Province has been the most affected, with the Province's Garissa and Ijara districts reporting approximately 70% of the country's cases. Between 19 December 2006 and 20 February 2007, 114 cases (CFR 45%) of RVF were reported from 14 districts in the south of Somalia.³² The security situation in the country made it difficult for health authorities to conduct surveillance and fully investigate cases. This may explain the higher CFR seen in Somalia compared with Kenya and Tanzania if only the most severe Somalian cases (those who had been hospitalised) were included in the case numbers. A lack of appropriate treatment might also have contributed to the higher CFR compared with other countries.

Tanzania

In early February 2007, the first Tanzanian cases of RVF in the current outbreak were reported from the areas of Arusha, Manyara and Tanga bordering Kenya. By mid-February, the WHO had reported 8 suspected cases from these areas. In mid-March the disease appeared to be spreading southwards in Tanzania, with 58 suspected cases (CFR 24%) reported from the Dodoma region, followed by 60 suspected cases from the Morogoro region by 23 March 2007.³³

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