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HEALTH INFORMATION OPERATIONS (HIO) UPDATE

26 November 2003

The HIO Update provides information regarding global medical and veterinary issues of interest to the United States (US) Army. The update does not attempt to analyze the information regarding potential strategic or tactical impact to the US Army and as such, should not be regarded as a medical intelligence product. Medical intelligence products are available at <http://mic.afmic.detrick.army.mil/>. The information in the HIO Update should provide an increased awareness of current and emerging health-related issues.

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HOT TOPICS

Brain Clues to Attention Disorder

21 November – BBC News reported scientists have found differences in the brains of children with attention-deficit hyperactivity disorder. University of California Los Angeles researchers found some areas of the brains of the children were smaller, but others had more grey matter. Other studies have suggested that [ADHD](#) is linked to abnormalities in areas of the brain which control attention. But the latest study suggests there are also structural changes in areas which control impulsive behavior. Researchers say they were able to combine the latest scanning technology with computer analysis to provide more detailed information about the differences in the brains of ADHD children. The US researchers carried out scans on the brains of 27 children with ADHD, and 46 children with no signs of the disorder. The ADHD children showed evidence of a reduction in the size two areas of the brain - one of each side - called the dorsal prefrontal cortices. Similarly, there was evidence of a size reduction in the anterior temporal areas - also found on each side of the brain. [View Article](#)

Global Distribution of Rubella Virus Genotypes

01 December – The journal of Emerging Infectious Disease reported phylogenetic analysis of a collection of 103 E1 gene sequences from [rubella](#) viruses isolated from 17 countries from 1961 to 2000 confirmed the existence of at least two genotypes. Rubella genotype I (RGI) isolates, predominant in Europe, Japan, and the Western Hemisphere, segregated into discrete subgenotypes; international subgenotypes present in the 1960s and 1970s were replaced by geographically restricted subgenotypes after ~1980. Recently, active subgenotypes include one in the United States and Latin America, one in China, and a third that apparently originated in Asia and spread to Europe and North America, starting in 1997, indicating the recent emergence of an international subgenotype. A virus that potentially arose as a recombinant between two RGI subgenotypes was discovered. Rubella genotype II (RGII) showed greater genetic diversity than did RGI and may actually consist of multiple genotypes. RGII viruses were limited to Asia and Europe; RGI viruses were also present in most of the countries where RGII viruses were isolated. [View Article](#)

Key Synthetic Vaccine for Children

23 November - Reuters reported Cuban researchers have developed the first synthetic vaccine against bacteria that causes [pneumonia](#) and [meningitis](#), a breakthrough aimed at lowering the cost of immunizing children in poorer countries. The vaccine protects against haemophilus influenzae type b, a bacteria that causes upper respiratory infections, mainly in children up to five years of age. The disease is a leading cause of meningitis. This is the first vaccine for humans made with a chemically produced antigen, Cuba says. The available, conventional vaccine is made using a difficult and more costly process of growing antigens in a bacterial culture. [View Article](#)

Pollution 'Ups SARS Death Rate'

20 November – BBC News reported SARS patients are more than twice as likely to die if they live in areas of high pollution, researchers report. US and Chinese scientists examined death

rates in five regions of China, where 5,327 cases of [SARS](#) have been registered and 349 people have died. In regions with low air pollution, the death rate was 4.08%, but where pollution was high it rose to 8.9%. The new research is published in Environmental Health: A Global Access Science Source. It finds that the lowest death rate among people with SARS was recorded in Guangdong province, which has a low level of pollution. Shanxi, Hebei and Beijing, where pollution levels are moderate, recorded a higher rate of deaths. The highest death rate was recorded in Tianjin, where air pollution was high. The researchers suggest that: "long-term or short-term exposure to certain air pollutants could compromise lung function, therefore increasing SARS fatality." [View Article](#)

Secret of Cell Movement 'Found'

20 November - BBC News reported the body's cells crawl from one place to another by rearranging their internal skeleton, scientists say. The finding could advance understanding of how tumors move around and how the immune system works. The Medical Research Council study, published in the journal Science, looked at the sperm cells of parasitic worms. It showed a "push and pull" mechanism where thin strands of material at the front of a cell push out while the opposite happens at the back. It was already known that cells move by pushing out their front ends while at the same time pulling in their rear, but how this works at a molecular level has been unclear until now. [View Article](#)

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6 people Diagnosed with Botulism in Dnepropetrovsk, Ukraine.

21 November – ProMed reported 6 people were admitted to the City of Dnepropetrovsk's infectious disease hospital with [botulism](#) after a birthday celebration. According to Dnepropetrovsk Nutrition Hygiene department chief Ivan Dedayev, physicians thought that the source of the botulism cluster was homemade canned corn shared by the participants in the celebration. Also according to Dedayev, this year [2003], there were 13 cases of botulism reported, with dried fish and homemade canned mushrooms found to be the source of the toxin-induced disease. [View Report](#)

Cholera Outbreak in Mali

18 November – IRIN News reported a charter plane carrying medical equipment and staff was expected in Mali to help curb a [cholera](#) epidemic that has so far killed 55 people along the River Niger, the medical charity Medecins Sans Frontieres (MSF) said. MSF said the disease had so far killed 55 people out of 693 confirmed cases among nomadic fishermen living the river. The epidemic, which was detected over the past three weeks in the southern towns of Macina and Koulikoro, was reportedly spreading from the southern part of the country to the north, MSF said in a press release. "So far we have counted a total of 693 cholera patients of whom 55 people died," Luc Derlet, Operations Coordinator for MSF from Luxemburg said. [View Article](#)

Ebola Hemorrhagic Fever in the Republic of the Congo - Update 2

21 November – WHO reported as of 21 November, 2003 the Ministry of Health of the Republic of the Congo has reported a total of 24 cases, including 12 deaths, of [Ebola hemorrhagic fever](#) (EHF) in Mbomo (19 cases, nine deaths) and Mbandza (five cases, three deaths) villages located in Mbomo district, Cuvette Ouest Department. Thirteen new cases (including one death) have been reported since 17 November, 2003. Twelve cases are currently ill at Mbomo (10) and Mbandza (2). The WHO Regional Office for Africa sub-regional epidemic response team for West Africa and staff from the WHO Country Office in Brazzaville have been working closely with the Ministry of Health and with Médecins sans Frontières (MSF-Holland) in Mbomo district. They are supporting case management, monitoring the situation and carrying out social mobilization activities with communities in the region. The WHO Country Office is supporting the National Control Committee which also includes the Congolese Ministries of Defence and Forestry and other partners: the European Union Humanitarian Office (ECHO), French Cooperation, International Federation of Red Cross and Red Crescent societies (IFRC) and the National Red Cross Society, MSF-Holland and United Nations High Commission for Refugees (UNHCR). [View Report](#)

Emerging Genotype (GGIIb) Norovirus in Drinking Water, Sweden

01 December – The Journal of Emerging Infectious Disease published a report, where from May through June 2001, an outbreak of acute gastroenteritis that affected at least 200 persons occurred in a combined activity camp and conference center in Stockholm County. The source of illness was contaminated drinking water obtained from private wells. The outbreak appears to have started with sewage pipeline problems near the kitchen, which caused overflow of the sewage system and contaminated the environment. While no pathogenic bacteria were found in water or stools specimens, [norovirus](#) was detected in 8 of 11 stool specimens and 2 of 3 water samples by polymerase chain reaction. Nucleotide sequencing of amplicons from two patients and two water samples identified an emerging genotype designated GGIIb, which was circulating throughout several European countries during 2000 and 2001. This investigation documents the first waterborne outbreak of viral gastroenteritis in Sweden, where nucleotide sequencing showed a direct link between contaminated water and illness. [View Article](#)

New TB strain in South Africa

21 November – ProMed reported a rare new "super" strain of [tuberculosis](#) that is costly and time-consuming to treat has been identified in South Africa's Western Cape Province, a leading scientist said. Tommie Victor, a professor of medical iotechnology at the University of Stellenbosch near Cape Town, said a team of scientists and health workers had identified the strain after conducting research in 72 clinics in the Western Cape over the past 3 years. Victor said the team found that the strain DRF150 was resistant to almost all antimicrobial agents, used to treat tuberculosis. Victor said the new strain had its epicenter in the town of George, about 400 kilometers (250 miles) east of Cape Town, where about 60 cases had been identified. About 20 other cases have been identified in other parts of the Western Cape, but isolates of the new strain have also been found in the South Africa's Northern Province, the Mpumalanga province and in Nairobi, Kenya. Last year 224,420 cases of tuberculosis were reported in South Africa. According to the UN World Health Organization's 2003 report on the global spread of tuberculosis, South Africa has the 7th-highest number of cases of the disease, after India, China, Indonesia, Bangladesh, Nigeria, and Pakistan. [View Report](#)

UK (England & Wales): Mumps Cases at Highest Level for a Decade

23 November – ProMed reported cases of [mumps](#) are at the highest levels for almost a decade. So far this year, there have been more than 2000 formal notifications of the disease in England, at least half of them thought to be positive. In Wales there have been 323 confirmed cases, compared with just 2 in 1999. Public health doctors have warned that in some areas, one child in 5 starting primary school this year was not protected against the disease. The massive rise in mumps cases is a cause of huge concern for health officials, who have seen the take-up of the triple [measles](#), mumps and [rubella](#) (MMR) vaccination drop alarmingly because of health scares. Latest provisional figures show that for the 2nd quarter of this year there were 1,439 notifications of mumps in England, the highest number since 1995. In the previous quarter, there were 972 notifications, also the highest since 1995. It is estimated that around half of those notifications are positive. In Wales, both mumps and measles are on the increase, and doctors are warning of outbreaks of both diseases. There have been warnings that the fall in the take-up of the MMR, blamed on controversial and hotly disputed links that have been made between the vaccine and autism, will result in more outbreaks of measles and rubella. Less attention has been paid to mumps, which is often considered a benign illness with low mortality rates. But doctors warn that it should not be underestimated. [View Report](#)

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Kyrgyzstan: Typhoid Epidemic Continues to Spread in Kyrgyzia

21 November – ProMed reported the situation with [typhoid](#) is still serious in Kyrgyzia. On Tue, 18 Nov 2003, the Sanitary Epidemiological Surveillance Department reported that the number of people hospitalized with a preliminary diagnosis of typhoid fever in the southern part of Kyrgyzstan has reached 200. According to specialists, the most serious situations are in the Jalalabad and Batken regions of Kyrgyzstan, where people suspected of having typhoid are being admitted to hospitals on a daily basis. About 100 people have confirmed diagnoses of typhoid fever. According to the specialists, the main cause of the [outbreak] was contamination of the rivers and ariks (artificially designed channels for drinking water) by sewage. The local population drinks water from these rivers and channels. [View Report](#)

Sultanate of Oman: Equine Cases of West Nile Virus Infection

20 November – ProMed reported Oman has issued an alert for [West Nile fever](#) following the discovery of equine cases of West Nile virus infection. Government departments were instructed to keep a close watch and doctors were advised to conduct specific tests when investigating suspected cases of meningitis, encephalitis, or any unknown fever, a report said. The new measures follow a "limited outbreak" of West Nile fever in horses in March 2003. The diagnosis was confirmed by the University of Pretoria in South Africa and a national diseases committee made up of officials from the Health, Agriculture and Fisheries Ministries met to formulate a response. Officials stressed that to date there have been no instances of infection of humans in the Sultanate. [View Report](#)

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Bioterror Risks Seen at College Labs

21 November – MSNBC News reported materials that could be used for [bioterrorism](#) often are kept in insecure areas and aren't well-monitored by university research labs funded by the Agriculture Department, federal inspectors say. Trying to reduce post-Sept. 11 opportunities for terrorist attacks, the department's inspector general found an alarming potential for biological agents, chemicals and radioactive materials could be readily obtained from college laboratories that receive some money from the department. The money generally is used to pay for agricultural studies of those materials. Some of the specimens include diseases and bacteria, such as anthrax and the plague, which could harm people. "In the wrong hands, some of these agents or materials could pose a risk to human health and agricultural production in the United States," inspectors concluded. In one case, an unlocked freezer contained a biological agent for a plague more severe than the Black Death. Seven vials of *Yersinia pestis*, one of the highest-risk materials, had been stored there since 1981. It causes bubonic plague, or Black Death, and pneumonic plague, a far more severe, airborne pathogen that infects the lungs and is nearly 100 percent fatal within 48 hours of symptoms. The last inventory for the freezer was in 1994, and it was incomplete. [View Article](#)

Canada Scaling Back SARS Screening

19 November – ABC News reported Canada is easing [SARS](#) screening at its international airports, including a halt in the use of thermal scanners to detect people with fever, Health Minister Anne McLellan announced. The change comes more than five months after the last new case of severe acute respiratory syndrome was detected in Canada, where the disease killed 44 people and sickened more than 200 others in the Toronto area earlier this year. The government also will phase out the colored SARS alert cards given international air travelers, replacing them with a brochure about infectious diseases. [View Article](#)

CDC Warns of Potential for Ricin Poisoning

20 November – CIDRAP News reported the Centers for Disease Control and Prevention (CDC) is urging health workers to be alert for possible cases of ricin poisoning. An envelope containing a threatening note and a sealed container of [ricin](#) turned up at an airport mail-processing facility in Greenville, S.D., Oct 15. Until the perpetrator is found, 'healthcare providers and public health officials must consider ricin to be a potential public health threat and be vigilant about recognizing illness consistent with ricin exposure,' the CDC says in the Nov 21 issue of Morbidity and Mortality Weekly Report. [View Article](#)

Consumers Advised Recent Hepatitis A Outbreaks Associated with Green Onions

17 November - The Food and Drug Administration is advising the public that several recent [Hepatitis A](#) outbreaks have been associated with eating raw or undercooked green onions (scallions). Hepatitis A outbreaks associated with raw or undercooked green onions served in restaurants occurred in Tennessee, North Carolina and Georgia in September. Another outbreak of hepatitis A among patrons of a single restaurant occurred in Pennsylvania during

caused the large outbreak of [Hepatitis A](#) in the region, the Centers for Disease Control and Prevention said Fri 21 Nov 2003. Food preparation at the restaurant in Monaca, Pennsylvania, amplified the problem, health experts said. Bunches of scallions, also called green onions, were stored together in large buckets for 5 days or more with the ice they had been shipped in from Mexico. As a result, even if only some bunches were tainted with hepatitis A virus when they were delivered, it would have quickly spread to all the other scallions. The ice water in the bucket became, essentially, "hepatitis soup," said Dr. Michael Osterholm, an epidemiologist at the University of Minnesota who has investigated many hepatitis outbreaks. When it was time to use the scallions, they were rinsed, chopped, refrigerated for about 2 more days, and then added to the salsa, which was made in 40- to 80-quart batches that were kept in the refrigerator for up to 3 days. Genetic tests on viral samples from patients who ate at Chi-Chi's showed that the virus infecting them is very closely related to one isolated from victims of hepatitis A outbreaks caused by scallions in Tennessee and Georgia in September. In those cases, the scallions were traced to suppliers in Mexico. The F.D.A. said yesterday that border inspectors were stopping scallion shipments from several Mexican suppliers. How the scallions became contaminated is not known. The government has been advising consumers to avoid eating raw scallions, but they are safe if thoroughly cooked. [View Report](#)

Rare Infection Threatens to Spread in Blood Supply

18 November – The New York Times reported a parasitic infection common in Latin America is threatening the United States blood supply, public health experts say. They are especially concerned because there will be no test for it in donated blood until next year at the earliest. The infection, [Chagas disease](#), is still rare in this country. Only nine cases are known to have been transmitted by transfusion or transplant in the United States and Canada in the last 20 years. But hundreds of blood recipients may be silently infected, experts say, and there is no effective treatment for them. Chagas is still little known in the United States, but in Mexico, Central America and South America, 18 million people are infected, and 50,000 a year die of it. Because the disease is most common in rural areas from southern Mexico to northern Chile, the threat is greatest in American cities with many immigrants from those areas. [View Article](#)

Syphilis Rate Climbs for Second Year

20 November – Reuters reported the rate of [syphilis](#) in the United States rose in 2002 for the second straight year, largely because of outbreaks among gay and bisexual men, federal health officials said. The Centers for Disease Control and Prevention said the syphilis rate rose 9 percent between 2001 and 2002, the second straight yearly increase following a decade-long decline. The rate rose nearly 5 percent in 2001. While health experts said declines among black Americans and women showed the success of targeted education and testing programs, they also said the data posed new challenges to attacking the dramatic increase in syphilis among gay and bisexual men. Syphilis among men rose 27 percent, to 5,267 cases in 2002 from 4,134 a year earlier. The CDC estimated that more than 40 percent of all syphilis cases last year were among men who have sex with men. Relaxed attitudes about safe sex in the wake of effective HIV treatment and problems with substance abuse and depression could explain the acceleration of syphilis in gay men, which is also being seen in the United Kingdom and elsewhere in Europe. [View Article](#) View [CDC-MMWR Report](#)

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Philippines: Dengue Affects 33 in Lucena Barangays

20 November – ProMed reported in a letter dated 10 Nov 2003, city health officer Wilfredo Frondoza has informed Mayor Ramon Talaga Jr. of Lucena City that in the surveillance report of the city health office field operations, there are 136 listed [dengue](#) cases in September and October [2003] out of the total 218 cases from January to October this year. The mayor of Lucena city is urging the city council to declare under a state of calamity the 33 barangays here owing to a dramatic increase of the number of dengue cases from September to October [2003]. He is also asking the Sangguniang Panlungsod for the passage of an ordinance realigning PHP 1 million [USD 18,000] out of the calamity fund to be used in the purchase of fogging machines. The latest report on dengue cases in this city showed that from January to 15 Nov 2003 there were 218 listed suspected cases of dengue, 31 confirmed. [View Report](#)

Tour Groups Contract Dysentery Fever in Bali

24 November – ProMed reported in the wake of the rising number of dysentery cases among tourists recently returned from the Indonesian resort island of Bali, the [Taiwanese] Center for Disease Control (CDC), Sun, 23 Nov 2003, disclosed the list of travel agencies which organized these group tours. According to the CDC, over 40 people who recently traveled to Bali in groups have shown signs of dysentery, such as diarrhea, fever and vomiting. At least 25 people, who belonged to 15 different tour groups, were affected with [Shigella dysentery](#). The tally is expected to go up as members of 2 more groups were reported to have developed dysentery-like symptoms and 304 people, including tourists and their relatives, have been put on observation. It was speculated that the tourists have contracted the disease via contaminated water or food or from dysentery-affected restaurant staff on the Indonesian island. All of the tour groups have been to 3 popular restaurants in Bali, noted Shih Wen-yi, deputy director-general of the CDC. Shih added that there was no direct evidence pointing to the restaurants as the sources of infections. The travel agencies association will, however, request its members to stop using at least 2 of the 3 restaurants implicated. To prevent a large-scale dysentery outbreak, Shih suggested those who recently visited Bali to undergo screenings at local health stations even if they have no symptoms. Regardless of a spate of dysentery cases, an immediate travel ban on Bali is unlikely, according to the Tourism Bureau and travel agencies association. [View Report](#)

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AIDS Spreading in Latin America

19 November – MSNBC News reported Latin America has not experienced a full-blown [AIDS](#) epidemic, but the disease is spreading into the general population from high-risk individuals, according to a World Bank report. “HIV/AIDS In Latin American Countries: The Challenges Ahead” presents the results of a 2001 survey of health workers, governments and international

organizations in 17 countries, spanning a region from Mexico to Argentina. Latin American countries are increasing efforts to prevent the spread of HIV/AIDS, but these measures are hampered by inadequate resources, underreporting of the disease, inadequate health care and social prejudices, the report said. Approximately 130,000 adults and children were infected with HIV in 2001, and 80,000 died of AIDS, according to the study. But the researchers say underreporting is so common that the region likely has 30 percent more cases of AIDS and 40 percent more cases of HIV than existing statistics show. In almost all the countries in the study, infection rates are still concentrated in high-risk populations, such as prisoners, injecting drug users, commercial sex workers and men who have sex with men. The exceptions are Honduras and southeastern Brazil, where the epidemic has reached the general population. [View Article](#)

Please contact the below-listed POC for suggested improvements and/or comments regarding this report. This report is also available on the USACHPPM website at <http://chppm-www.apgea.army.mil/Hiouupdate/>.

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