USACHPPM HEALTH INFORMATION OPERATIONS (HIO) UPDATE

25 July 2002

The HIO Weekly Update provides information regarding global medical and veterinary issues of interest to the US Army. The weekly 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 Weekly Update should provide an increased awareness of current and emerging health-related issues.

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HOT ISSUES

Anthrax Tests – White House

On 19 July, the Associated Press reported the White House is warning that anthrax field tests widely used since last fall's bioterrorism attacks give fast but often incorrect results, prompting authorities to shut down buildings prematurely and distribute unneeded antibiotics. The report stated that the White House Office of Science and Technology would send a memo to more than 250 federal agencies and to firefighters, police, and local officials across the country, advising federal agencies to stop buying field test kits and to cancel any contracts that are pending. The memo advises authorities to send results to a lab, where they can get initial readings within six hours. The memo will also reportedly recommend federal agencies stop routinely testing their mailrooms for anthrax, given that most [federal] mail is now irradiated. [View report]

Childhood Vaccinations – CDC

On 12 July, the <u>CDC</u> announced that supplies of diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine and measles, mumps, and rubella (MMR) vaccine in the US have become sufficient to permit the resumption of the routine schedule for DTaP and MMR use as recommended by the <u>ACIP</u>. Child care and school attendance provisions requiring children to receive a DTaP booster and a second dose of MMR vaccine at age 4-6 years can be reinstituted. [View report]

HIV/AIDS Low-Cost Technologies – Developing World

On 8 July, the <u>CDC</u> reported that new study data from several African countries revealed progress in identifying practical solutions for improving HIV testing in highly affected countries. The study results include a new method of monitoring CD4+ cell levels in blood at one-fourth the cost of current CD4+ tests, and a new technology for monitoring viral load at one-fifth the cost of existing tests. Panleucogating (PLG) is the new technology that looks for CD4+ markers on white blood cells. With fresh blood samples PLG obtained results that correlated closely with FACSCount, the standard CD4+ test, while superior results were obtained when analyzing three-day old, stabilized blood. Another alternative approach known as lymphocyte gating showed much poorer results in both fresh and stabilized blood analysis. [View report]

Homeland Security – White House

On 16 July, *The Guardian* reported that the White House released a 90-page strategy on homeland security. The document proposes new federal laws and initiatives that would include (1) the creation of "red teams" that would think like terrorists and identify potential methods and targets and (2) the updating of procedures that order emergency quarantines in cases of bioterrorism. The strategy also identifies eight priority areas for "substantial" spending in the next budget. [View report]

Hormone Replacement Therapy (HRT) – NIH

On 11 July, the Rhode Island Department of Health (HEALTH) reported that on 10 July NIH had stopped a major clinical trial involving combined estrogen and progestin (Prempro[®]) in healthy menopausal women early due to an increased risk of invasive breast cancer. The large multi-center trial, originally scheduled to run until 2005, also found increased risk for coronary heart disease, stroke, and pulmonary embolism in study participants. Some benefits included fewer cases of hip fractures and colon cancer. On balance, however, the harm was greater than the benefit. HEALTH recommended women on the combined estrogen-progestin HRT see their healthcare provider for follow-up. A separate NIH study of estrogen alone in women who had a hysterectomy before joining the hormone program continues unchanged because, at this point, the balance of risks and benefits of estrogen alone is still being studied. [View HEALTH report or View BBC report]

Implantable Cardioverter Defibrillators (ICDs) – FDA Approval

On 18 July, the FDA approved a new indication for Guidant Corporation's ICDs that expands the target population to include patients with a history of a heart attack and depressed heart function. With approval of this new indication, some patients may not be required to undergo invasive electrical testing using a catheter from the groin to the heart prior to implantation of the ICD. [View report]

Poliovirus Synthesis – Implications for Eradication and Bioterrorism

On 18 July, the Eurosurveillance Weekly reported on the 11 July *Science* study funded by <u>DARPA</u>, which reported that researchers had synthesized infectious poliovirus cDNA *de novo* in a laboratory for the first time by using the genome sequence available on the Internet and genetic material made to order by a company which constructs and sells DNA. According to the Boston Globe, DARPA wanted to know whether potential weapons of bioterrorism could be made in a laboratory. This information has implications for future decisions about polio vaccination strategy as global polio eradication approaches. If poliovirus is contained and mass vaccination not continued, population immunity against polio will be lost, and synthesized poliovirus could then become a potential bioterrorism weapon. *Science* published online July 11, 2002: 10.1126/science.1072266 (Science Express Reports). [View Euro report or View The Boston Globe report]

Smallpox Attack Mathematical Model – US

On 8 July, the *New York Times* reported that a <u>PNAS</u> study found large differences in how four different vaccination strategies would fight a smallpox bioterrorism attack. The study used a mathematical model to compare how an attack on a large city that infected 1,000 people would progress when countered with diverse vaccination plans meant to halt the spread of the highly contagious disease. In all cases, the mass vaccination of the US population worked far better than ring vaccination or ring vaccination followed by delayed mass vaccination [View NYT report or View PNAS report]

Smallpox Vaccine Trials – US

On 9 July, ProMED reported that about 330 volunteers would be inoculated with diluted doses of smallpox vaccine over the next two weeks at four sites across the country. Healthcare workers will inject the vaccine and bandage the area, which is monitored. Subsequent blood tests will determine if the test subjects develop protective antibodies. The <u>CDC</u> is considering vaccinating as many as 500,000 healthcare workers and emergency personnel who would be first to see any smallpox cases. The New England Journal of Medicine published two preliminary studies in March. [View report]

Water Distribution Systems Targeted by Terrorists – FBI

On 22 July, *Time* reported that an executive of the American Water Works Association last week confirmed an FBI warning that cautioned the nation's water utilities to prepare to defend themselves against possible terrorist attacks on pumping stations and pipes that serve its cities and suburbs. While no specific plans to attack a water system were found, documents were discovered in Afghanistan that indicate al-Qaeda terrorists were investigating ways to disrupt the US water supply on a massive scale. Captured terrorist suspects in Pakistan reportedly told their interrogators that al-Qaeda was dabbling with such toxins as cyanide and botulinum. [View report]

USCENTCOM

Acute Diarrheal Syndrome – Afghanistan

On 17 July, the <u>WHO</u> reported that an outbreak of watery diarrheal disease involving 6,691 cases (three deaths) has been ongoing in Kabul during the last three weeks. Among these cases, three cases of *Vibrio cholerae* have been laboratory confirmed. The Ministry of Public Health reactivated the Cholera Task Force, which has implemented preventive measures such as health education and water chlorination. Surveillance activities are continuing. According to the WHO, an increase in diarrheal diseases, including cholera, is a "normal" occurrence in this area during this time of year. [View report]

Malaria – Kyrgyzstan

On 18 July, <u>AFMIC</u> reported that up to 100 cases of suspected malaria were reported in the Batken area since mid-June. Rice farmers in the area have been requested to drain their fields to destroy mosquito-breeding sites. [View report; requires registration]

USEUCOM

Anthrax – Albania, Bosnia, Bulgaria, and Romania

On 11 July, <u>AFMIC</u> reported the following anthrax outbreaks in humans: 226 cases (126 hospitalized) in Gjinokastru, Albania; occupationally related cases in Bosnia, and one human case in Romania associated with consumption of an infected veal calf. Additionally, Bulgaria reported cases in early July in livestock. Animal vaccination campaigns are ongoing. [View report; registration required]

BICHAT – European Union (EU) Response to Bioterrorism

On 11 July, the Eurosurveillance Weekly reported that a Health Security Committee, formed under a directive issued by the EU health ministers, has developed a program of cooperation on preparedness and response to biological and chemical agent attacks, abbreviated to BICHAT, which comprises 25 actions grouped under four objectives: (1) establish a EU coordination mechanism, (2) ensure rapid detection and identification of agents and cases, (3) evaluate inventory and use of medicines and services, and (4) establish EU rules, guides, and international links. [View report]

BSE-Risk Material in Beef – France

On 19 July, Reuters reported that French veterinary services had found over 10% of cattle carcasses about to enter the food chain still contained banned spinal cord in an inquiry conducted last year. Significant amounts of other specified risk materials, such as tonsils and thymus, were also found in 32 abattoirs last year. The EU has banned spinal cord in food made from cattle since 1996. The inquiry was conducted prior to the enactment of a French law, which now requires slaughterhouses to use vacuum pumps to strip cattle carcasses instead of manual cutting. [View report]

Chicken Breasts Possible BSE Risk - Ireland

On 8 July, the *Guardian* reported that last month the Irish Food Safety Authority (FSA) had found more than half its chicken breast fillet samples contained foreign DNA which was not declared on the label: a total of seven samples contained bovine DNA, seven pork DNA, and three both. The Irish authorities have now impounded the meat, but the <u>UK</u> FSA had not acted to remove the same brands from sale. All the chicken products were imported from Thailand and Brazil through the Netherlands where they had been "tumbled" with water and additives containing hydrolyzed proteins. [View report]

Crimean-Congo Hemorrhagic Fever (CCHF) – Kosovo

On 18 July, <u>AFMIC</u> reported at least three people have died of CCHF in Kosovo and another 35 are listed as suspected cases since May. Confirmed cases were found in Lebane, Medvedja, and Leskovac. The route of exposure was not specified but expected to be tick bites. [View report; requires registration]

Foot and Mouth Disease (FMD) – UK

On 16 July, the BBC reported that the Royal Society had recommended in a government-commissioned report that vaccination should be part of any strategy to control a future FMD outbreak in the UK. The report, from Britain's foremost academy of science, is the first of two major studies into the government's handling of the epidemic last year. [View report]

Gene Tests – UK

On 15 July, the BBC reported that the Human Genetic Commission would launch a three-month survey asking whether genetic tests should be sold direct to the public, or should only be available through a doctor. Technological developments that have made genetic testing easier and more readily available coupled with a growing public interest and understanding of medical information have fueled the demand for these tests. The survey results are expected by the end of the year. [View report]

Hantavirus Hemorrhagic Fever with Renal Syndrome – Bosnia and Serbia

On 18 July, <u>AFMIC</u> reported that officials in Banovici have declared an epidemic due to the rising number of Hantavirus cases since May. A total of 43 reported cases have been reported with most cases located in the Central Bosnia Canton. In neighboring Serbia, 10 cases have been reported. [View report; requires registration]

Meningococcal Meningitis – Rwanda

On 18 July, <u>AFMIC</u> reported 40 deaths and an unspecified number of cases of meningococcal meningitis (type unspecified) in Rwanda. [<u>View report</u>; requires registration]

Unknown Illness – Namibia

On 18 July, <u>AFMIC</u> reported 14 human cases (eight deaths) of an unknown illness were reported from Malengalenga village in the Caprivi Region. The first case was reported in December 2001. A Namibian veterinarian visiting the village reportedly suspected anthrax. A local health education program was launched to warn people not to eat, skin, or open any animal that has died mysteriously. [View report; requires registration]

USJFCOM

Anthrax – Russia

On 16 July, ProMED reported a resident of Kalmykia died due to cutaneous anthrax contracted from a sick cow. The man killed the sick cow and sold its meat in the Rostov region. Family members and people who bought the infected meat were vaccinated and placed under observation through the incubation period with no further cases noted. The incident is reportedly not connected to the flood-stricken areas in southern Russia. [View report]

Anthrax – South Dakota

On 11 July, ProMED reported a Jerauld County veterinarian was diagnosed with cutaneous anthrax as a result of blood and tissue exposure during an autopsy of an unvaccinated cow that was recently added to a herd of vaccinated cattle in a pasture adjacent to the premises where buffalo were lost due to anthrax in August 2001. Two individuals who assisted with the autopsy are on prophylaxis. [View report]

Escherichia coli O157:H7 Multi-state Outbreak – US

On 19 July, the <u>CDC</u> reported that a cluster of 16 cases of *E. coli* O157:H7, indistinguishable by pulsed field electrophoresis using two enzymes, were reported in Colorado with onset dates between 13 and 30 June. Based on patient interviews, molecular fingerprinting methods, and initial traceback, these cases have been associated with consumption of ground beef products voluntarily recalled by ConAgra Beef Company on 30 June. Using PulseNet and epidemiological information, six additional cases of *E. coli* O157 infection that might be related to the Colorado cluster have been identified in five other states including California, Michigan, South Dakota, Washington, and Wyoming. The CDC is recommending that consumers thaw frozen ground beef in the refrigerator and cook thoroughly to internal temperatures of at least 160 degrees Fahrenheit. [View report]

Hepatitis B Virus (HBV) Vaccination – US

On 19 July, the <u>CDC</u> reported that the national strategy to eliminate HBV transmission, which is composed of four objectives, has largely been successful except for the last objective of vaccinating adolescents and adults in groups at increased risk for infection. According to the report, adults and older adolescents with high-risk sex and drug behaviors are still not getting routinely vaccinated. For instance, the CDC recommends healthcare providers offer the HBV vaccine to all persons seeking care for a sexually transmitted infection, but programs have had only limited success rates. The report suggested that a sustained vaccination program might achieve higher levels of vaccine acceptance if combined with a short counseling session. [View report]

HIV Seroconversion after Blood Transfusions – Florida

On 19 July, CBS News reported that two people contracted HIV from blood transfusions provided from a regional blood bank. The donor gave infected blood on 11 May, but had contracted the disease so recently that tests did not detect the infection. The HIV virus generally takes seven to 10 days to build up sufficiently for detection. When the donor returned to give blood again on 30 May, a positive HIV was detected. The blood was destroyed, the donor notified, and a traceback initiated. The incident is the second time since the nation's blood banks implemented new screening technology in 1999 that HIV has been transmitted through a transfusion. [View report]

Malaria Surveillance – US, 2000

On 12 July, the <u>CDC</u> reported that during 2000, 1,402 cases of malaria were reported in the US or one of its territories, representing a 9.0% decrease from 1999. The decrease is probably a result of expected variation in the reporting system. Six deaths were attributed to malaria, four caused by *P. falciparum*, one caused by *P. malariae*, and one by *P. ovale*. Cases among US military personnel decreased from 55 in 1999 to 46 in 2000; of the 45 cases for which information regarding chemoprophylaxis use was available, seven patients were not using any prophylaxis. In over 70% of reported imported cases, U.S. civilians were not taking any chemoprophylaxis or were not on an appropriate chemoprophylaxis regimen for the country in which they acquired malaria. Healthcare providers are encouraged to contact CDC rapidly whenever they suspect chemoprophylaxis failure, thus enabling measurement of serum drug levels of the antimalarial drugs in question. [View report]

Pertussis Deaths – US, 2000

On 19 July, the <u>CDC</u> reported that 17 deaths due to pertussis (whooping cough) were reported in the US during 2000. All deaths occurred in US-born infants who became sick before four months of age. Infants vulnerable to *Bordetella pertussis* infection are those aged less than six months or those who have not yet received three doses of diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine. *B. pertussis* can be transmitted to vulnerable infants by infected parents, siblings, and others. Antibiotics can be used to treat persons with pertussis and their close contacts, including exposed infants. Timely vaccination of infants and children according to the current <u>ACIP</u> recommendations remains the most effective way for parents and healthcare providers to prevent pertussis. Infants should receive the first DTaP vaccine at age two months, followed by doses at ages 4, 6, and 15-18 months, and a booster dose at age 4-6 years. [View report]

Pertussis – Texas

On 18 July, the Texas Department of Health (TDH) reported that 378 cases of pertussis or whooping cough, including four infant deaths, have been recorded in 41 counties so far this year. About 30% of the cases have been in children under one year of age. Last year some 615 cases of pertussis were reported in 70 counties, the highest number of cases since 1968 when 802 cases were reported. The illness has been on an upward trend in the US for several years. The TDH is advising physicians to consider giving antibiotics immediately to patients with pertussis symptoms and to their family members, instead of waiting for results of lab tests to confirm the illness. The TDH is also advising parents that a healthcare provider should see any infant with cough or difficulty breathing. [View report]

West Nile Virus (WNV) Activity – US

On 23 July, ProMED reported that a 50-year-old man from Orange County was confirmed as the first human case of WNV in Texas. Test results are pending on four other suspected adult cases. On 19 July, the Mississippi State Department of Health confirmed the state's first human case of WNV in a middle-aged man from Hinds County. On 18 July, the <u>CDR</u> Weekly reported seven human cases of WNV encephalitis or meningitis have been reported in towns east of Baton Rouge, Louisiana during 2002. The first three cases were all male; one case was 78 years of age and was diagnosed on 8 July, and two further cases, aged 62 and 53 were diagnosed on 11 July. The CDC reported that dates of illness onset ranged from 10 to 28 June, with no fatalities. This week, state health officials reported that one 34-year-old woman and three men, aged 17, 62, and 76, have been diagnosed with WNV. All cases have been hospitalized. In addition, 23 WNV infections in horses have been reported from four states (Florida, Kentucky, Louisiana, and Texas). Additionally, CDC officials at the AVMA convention reported confirmation of the first horse in North Dakota (Grand Forks County). WNV maps are maintained at the USGS website. [View ProMed report or View MS report or View CDC report or View CDR report]

World Trade Center (WTC) Registry – ATSDR

On 8 July, the ATSDR announced that will it assist the New York City Department of Health and Mental Hygiene in creating a registry of people who may have been exposed to the WTC site, either from working, living, or cleaning up in the area affected by the disaster. The registry will follow the health of the 100,000 – 200,000 people exposed to substances emanating from the collapse and cleanup of the WTC to help determine whether their exposure has any relationship to short- or long-term health problems they may experience. The registry was made possible through \$20 million provided by <u>FEMA</u>. The registry is expected to launch in late fall 2002. [View report]

USPACOM

Dengue Fever – Malaysia

On 18 July, <u>AFMIC</u> reported about 2,000 cases were reported in Kuala Lumpur between January and June, which is four times that of the same period last year. The health department is launching a preventive campaign that focuses on elimination of mosquito breeding areas. [View report; requires registration]

Dengue Fever – Philippines

On 18 July, <u>AFMIC</u> reported 316 dengue fever cases and two deaths occurred between January and early July. Last year the province only reported 123 cases. Health officials are focusing preventive efforts on the use of mosquito nets and screens and on removal of any potential mosquito breeding places. [View report; requires registration]

Diet Pill Linked to Deaths – China, Japan, and Singapore

The Japanese Health Ministry reported 64 Japanese people – most of them women – have suffered liver damage and other ailments believed to be caused by fenfluramine, an ingredient in a Chinese herbal slimming supplement. Of the 64 people, four have died and 28 remain in the hospital. The supplement, sold in China under the name Yuzhitang and in Singapore as Slim 10, was banned earlier this year. South Korean officials are strengthening measures to prevent import of the pills. [View report]

Hepatitis E Virus (HEV) – Japan

On 21 July, *The Daily Yomiuri* reported that researchers in Japan have retrospectively found HEV in 10 patients with acute hepatitis since the 1990s. At least seven of the patients from Tokyo, Saitama Prefecture, and Hokkaido had not traveled abroad where the disease is prevalent. Researchers began investigating the number of cases of HEV after Europe and the US reported increased instances of the disease in recent years. Examinations found three variations of HEV among the seven people who contracted the virus in Japan – all of which were different from the types of virus found overseas. Historically, HEV has not been considered a serious risk in Japan because it has been associated with countries with underdeveloped water supplies. HEV can live and grow in the body of animals without causing serious problems to the host; therefore, pigs, goats, and rats are thought to carry the virus in some foreign countries. [View report]

Malaria – South Korea

On 18 July, <u>AFMIC</u> reported four deaths due to malaria had recently occurred near the demilitarized zone (DMZ) and 15 additional suspected cases are under observation. Transmission typically occurs from April thru October. As of 5 July, a total of 206 malaria cases had been officially reported in Korea. [View report; requires registration]

USSOUTHCOM

Dengue Fever – El Salvador and Honduras

On 19 July, the <u>WHO</u> reported that as of 6 July, there have been 2,249 cases (six deaths) of dengue fever and 156 cases of dengue hemorrhagic fever (DHF) in El Salvador. The epidemic curve suggests the outbreak has peaked. The <u>WHO</u> also reported that as of 29 June there have been 3,993 reported cases (eight deaths) of dengue fever and 545 cases of DHF in Honduras. Preventive efforts have focused on community participation. Coordination efforts involving surveillance and vector control are being undertaken in the bordering areas between the two countries. [View report on El Salvador; View report on Honduras]

Hantavirus Pulmonary Syndrome (HPS) – Brazil

On 16 July, ProMED reported a third case of HPS is under investigation in Minas Gerais. This case is in a 40-year-old man who is in stable condition but hospitalized. Two cases of HPS have been confirmed this year – one fatal case in a rural worker and one non-fatal case. A not-yet-confirmed case under investigation occurred in an administrator of a farm, who died on 13 July after being hospitalized. [View report]

Rickettsiosis, Spotted Fever Group (SFG) – Peru

On 13 July, ProMED reported that an investigation conducted during May and June in the community of Coletas, district of Sapillica, department of Piura, Peru found that out of 141 samples, 14 cases were positive for SFG rickettsia and 25 cases were positive for leptospira. Patients reported fever, headache, myalgias, jaundice, cyanosis, and seizures. Two deaths occurred. This is the first outbreak of SFG rickettsiosis reported in the north coast of Peru. [View report]

Barbara E. Davis, DVM This report is also available on the <u>USACHPPM website</u>.

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ACRONYMNS

ACIP - Advisory Committee on Immunization Practices AFMIC - Armed Forces Medical Intelligence Center AFPS - American Forces Press Service ATSDR – Agency for Toxic Substances and Disease Registry AVIP - Anthrax Vaccine Immunization Program **AVMA - American Veterinary Medical Association** BSE - Bovine Spongiform Encephalopathy CDC - Centers for Disease Control and Prevention CDR – Communicable Disease Report (England) DARPA – Defense Advanced Research Projects Agency; http://www.darpa.mil/ DHHS - Department of Health and Human Services DoD - Department of Defense EPA – Environmental Protection Agency ESSENCE - Electronic Surveillance System for the Early Notification of Community-Based Epidemics FBI - Federal Bureau of Investigation FDA – Food and Drug Administration FEMA – Federal Emergency Management Agency FMD – Foot and Mouth Disease FSIS - Food Safety Inspection Service GAO – US General Accounting Office HIV/AIDS - Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome IAEA - International Atomic Energy Agency IDP – Internally Displaced Persons ICRC - International Committee of the Red Cross IRCS - International Red Cross Society' MOU - Memorandum of Understanding MRI – Magnetic Resonance Imaging MSDS - Material Safety Data Sheet NAS – National Academy of Sciences NGO - Non-Governmental Organization NIH - National Institutes of Health NIOSH – National Institute for Occupational Safety and Health NRC - Nuclear Regulatory Commission OCHA - Office for the Coordination of Humanitarian Affairs OIE - World Organisation [sic] for Animal Health OSHA - Occupational Safety and Health Administration PAHO - Pan American Health Organization PCR – Polymerase Chain Reaction PNAS - Proceedings of the National Academy of Sciences **PPE - Personal Protective Equipment** TB – Tuberculosis UK - United Kingdom - England, Northern Ireland, Scotland, and Wales **UN – United Nations** UNAIDS – Joint United Nations Programme [sic] on HIV/AIDS UNHCR – United Nations High Commissioner for Refugees USAID - United States Agency for International Development USAMRIID - United States Army Medical Research Institute of Infectious Diseases USDA - United States Department of Agriculture **USPS - United States Postal Service** vCJD - variant Creutzfeldt-Jakob Disease VOA - Voice of America, an international multimedia broadcasting service funded by the US Government WHO – World Health Organization WMD - Weapons of Mass Destruction