

USACHPPM
HEALTH INFORMATION OPERATIONS (HIO) UPDATE

27 August 2004

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 as to its strategic or tactical impact on the US Army and should not be regarded as a medical intelligence product. Medical intelligence products are available from the [Armed Forces Medical Intelligence Center](#). The information in the HIO Update should provide an increased awareness of current and emerging health-related issues.

HOT TOPICS.....	2
Bird Flu Vaccine on Trial.....	2
Blueberry Compound Lowers Cholesterol	2
Call for Full Enquiry into Role of Medical Staff at Abu Ghraib	2
Drug-Resistant Bacteria May Find New Foe in Novel Drug Design Approach	3
Early Heart Attacks Likelier in Smokers.....	3
Immune Patients Inspire Hope of Hepatitis C Vaccine	3
Injected Contraceptive Raises STD Risk.....	4
It's Not Always How Much You Drink, But How and When.....	4
Mice May Hold Key to Restoring Human Hearing Loss.....	4
Needle-Free Anthrax Vaccine Shows Promise in Animal Studies	5
'Nubiotics' Clear Wound Infections in Mice	5
'Telepsychiatry' Works for Depression.....	5
Toxins in Tobacco Smoke Can Poison Passive Smokers	6
FOCUS ON EPIDEMIOLOGY.....	6
Possible Dialysis-Related West Nile Virus Transmission — Georgia, 2003	6
DoD-GEIS: Epidemiological Investigations Worldwide	6
USCENTCOM	7
Kyrgyzstan: Dozens Hospitalized With Suspected Anthrax in South.....	7
USEUCOM	7
Chad: Hepatitis E.....	7
Making Africa a Malaria Isolation Ward	7
Passenger Screening Advised To Cut Risk of Drug-Resistant Malaria in Africa	8
Polio Returns to Guinea, Mali, New Cases in Darfur	8
Russia: 126 People Hospitalized with Tickborne Encephalitis.....	8
Russia: An Outbreak of Leptospirosis Is Reported In Mordovia	8
Sierra Leone: Cholera Outbreak Claims 20 Lives.....	9
South Africa: Parents Urged to Help Curb Measles Outbreak.....	9
USNORTHCOM	9
<i>E. Coli</i> Outbreak Prompts Warning About Petting Zoos	9
Florida on Guard for West Nile Outbreak after Charley	9
Government Releases Plan Focusing on Obesity	10
Managing Occupational Exposures to Potential Bioterrorist Agents.....	10
Patient with Mad-Cow-Like Brain Ailment Dies.....	10
Possible Source of Lake Erie Illness Found	11
Southern California Death Toll from WNV Rises to Six	11
Study: 1 In 3 Adults Have High Blood Pressure	11

USDA Sets up Terror Defense.....	11
U.S. Prepares for Possible Flu Outbreak.....	12
U.S. to Develop Trial Anthrax Treatment.....	12
Vitamin D Deficiencies Found In Some Adolescents.....	12
Wrangling Impedes Transfer of Civilian Anthrax Vaccine.....	13
USPACOM	13
AIDS Rapidly Increasing in Papua New Guinea.....	13
Bird Flu in Pigs No Epidemic say Chinese Officials.....	13
India: 8 with Fever Diagnosed with Scrub Typhus.....	13
India: Malaria Epidemic in Gujarat.....	14
Leptospirosis Exposure Rate High in American Samoa.....	14
Malaysia: Council Confident Kuala Lumpur can Contain Flu.....	14
Multiple Diseases Continue in Flood Affected Bangladesh.....	14
"Mystery Illness" Confirmed as Malaria in Papua New Guinea.....	14
Philippines: Rabies Outbreak Feared in Iloilo City.....	15
USSOUTHCOM.....	15
Hantavirus Cases in Central Brazil (Federal District and Goias State).....	15

HOT TOPICS

Bird Flu Vaccine on Trial

25 August – Geelong Info reported that a new and promising [bird flu](#) vaccine will be tested on chickens at a high security Geelong research facility - CSIRO's Australian Animal Health Laboratory. Once developed, the vaccine could be used to protect the world's poultry industry from further outbreaks and stop it spreading to Australia. Vaccine research scientist Scott Tyack said the vaccine could be added straight to the bird's drinking water. The trial vaccine uses a modified and harmless form of fowl adenovirus. Avian influenza genes added to the adenovirus stimulate the vaccinated bird's immune system, protecting it against any future outbreaks of bird flu. Dr Tyack said the adenovirus system has been successfully used in other vaccines. [View Article](#)

Blueberry Compound Lowers Cholesterol

24 August – Reuters reported that a compound used by blueberries and grapes to fight off fungal infections could help lower [cholesterol](#). The compound, called pterostilbene, also helps regulate blood sugar and might help fight type-2 diabetes. The finding adds to a growing list of reasons to eat colorful fruit, especially blueberries, which are rich in compounds known as antioxidants. These molecules battle cell and DNA damage involved in cancer, heart disease, diabetes and perhaps also brain degeneration. Pterostilbene and resveratrol are related chemicals belonging to a group of compounds called phytoalexins. Plants produce them in response to stresses such as fungal infection and ultraviolet light. Pterostilbene may also be a promising compound to develop into a natural-based fungicide. [View Article](#)

Call for Full Enquiry into Role of Medical Staff at Abu Ghraib

19 August - EurekAlert reported that the Health and Human Rights article in this week's issue of [The Lancet](#) highlights how US Army medical personnel at Iraq's Abu Ghraib prison ignored medical ethics and human rights standards and were complicit with human rights abuses of Iraqi prisoners. Steven H

Miles (University of Minnesota) has reviewed media reports and available government documents. He highlights how the failure of medical staff to carry out their duties within the framework of the Geneva Convention and other human rights standards adversely affected the treatment of prisoners. Key failings of medical staff include: failure to maintain medical records, conduct routine medical examinations, and to provide proper care of disabled or injured detainees. Medical personnel and medical information was also used to design and implement psychologically and physically coercive interrogations. Death certificates and medical records were falsified.

This week's lead editorial discusses the crucial role of medical staff in upholding ethical values to combat the abuse and torture of prisoners. It comments, "Military doctors can be placed in a difficult position, but the problem of dual loyalty, to patients and to their employers, is well recognized. Guidelines and codes of practice state that doctors, even in military forces, must first and foremost be concerned about their patients and bound by principles of medical ethics. Given these events, the World Medical Association saw the need to re-emphasize its strong and unambiguous 1975 Tokyo Declaration in June: 'Doctors shall not countenance, condone, or participate in torture or other forms of degrading procedures . . . in all situations, including armed conflict and civil strife.'" [View Article](#)

Drug-Resistant Bacteria May Find New Foe in Novel Drug Design Approach

25 August – EurekAlert reported that researchers have found a way to produce novel aminocoumarins, antibiotics that can help in the fight against drug-resistant bacteria. Currently, doctors have precious few weapons to fight strains such as [methicillin-resistant Staphylococcus aureus](#) (MRSA). Though some of these "super bugs" are sensitive to aminocoumarins, there's a catch. Low solubility, poor absorption and distribution, and the inability to penetrate the bacterial cell wall, make these compounds less than ideal antibiotics. Now, Christopher T. Walsh, the Hamilton Kuhn Professor of Biological Chemistry and Molecular Pharmacology at Harvard Medical School, and colleagues report a method that can be used to generate potentially hundreds of aminocoumarin variants. "This approach allows the controlled variation of all parts of the aminocoumarin scaffold in the search to create antibiotics with tailored and improved properties," said Walsh. Aminocoumarins are inhibitors of bacterial type II topoisomerases, enzymes that untwist and unknot DNA. Without these topoisomerases bacteria cannot replicate. By modifying components of the backbone, the researchers hope to turn these inhibitors into potent antibiotics, ones that are more soluble, have better pharmacokinetics and more readily penetrate their bacterial targets. [View Article](#)

Early Heart Attacks Likelier in Smokers

24 August – Forbes reported that if you're under 40 and [smoke](#), your risk of having a heart attack is significantly greater than someone your age who doesn't. Male smokers between the ages of 35 and 39 were almost five times as likely to have a nonfatal heart attack as were nonsmokers. The risk for a heart attack was even greater among women who smoked, rising more than five-fold. Researchers found that the lowest rate of smokers, 18 percent, was in Auckland, New Zealand, while the highest was found in Beijing, where it was 65 percent. Most striking was that of all the heart attack victims studied, 80 percent of those under 40 were smokers. Among older smokers (ages 60 to 64), the risk for heart attack was lower, most likely due to other risk factors. However, smoking remained a significant risk factor for heart attack in this age group. [View Article](#)

Immune Patients Inspire Hope of Hepatitis C Vaccine

23 August – The Hindustan Times reported that a group of people, who appear to be resistant to [hepatitis C](#) despite constant exposure to the virus, may help develop a vaccine to curb its onset. The research found that people at high risk of contracting hepatitis C, which is a virus transmitted via

blood-to-blood contact, had developed protective immunity. Male prisoners in jails, who were not infected with hepatitis C, but were at high risk of being exposed via injecting drug, tattooing, piercing etc., were the first ones to be tested. "We identified four individuals who became infected, then went on to clear the virus and remain free of persistent infection on follow up, and yet never developed hepatitis C antibodies," said Andrew Lloyd, an infectious diseases physician from the University of New South Wales. Fifty percent of those tested had developed T cells i.e., white blood cells that indicate an immune response to an infection. "It is possible that they had been infected in the past, perhaps on several occasions, and that may be why they were able to clear the virus efficiently and without developing antibodies," said Professor Lloyd. Around 30 to 40 percent of people who contract hepatitis C eradicate the virus within six months of infection, but remain susceptible to re-infection. But the prisoners didn't get the infection for whole one year despite continuing exposure. [View Article](#)

Injected Contraceptive Raises STD Risk

23 August – Yahoo! News reported that women who use the injected contraceptive Depo-Provera have a higher rate of [sexually transmitted diseases](#). This holds true even when behavior and other factors are taken into account. More study is needed, but it is possible that Depo-Provera itself causes a susceptibility to STDs. The researchers studied about 800 women age 15 to 45 using two clinics in the Baltimore area -- one urban, serving mostly black women, and one suburban with a client base of white, college-age women. The women chose whether they wanted to use Depo-Provera, contraceptive pills, or a non-hormonal contraceptive method. After a year, 45 women had become infected with chlamydia or gonorrhea. The risk for women taking oral contraceptives was 3.9 infections per 100 women-years, 13.7 per 100 women-years in the Depo-Provera group and 6 per 100 women-years in the women using condoms, diaphragms or other non-drug birth control methods. [View Article](#)

It's Not Always How Much You Drink, But How and When

25 August – ABS-CBN News.com reported that men can drink more [alcohol](#) than women before hurting their livers. New research has found that males can safely consume three drinks a day before their livers begin to show signs of potential damage, but the threshold for women is about two drinks a day. Lead author Dr. Saverio Stranges, a research instructor in social and preventive medicine at the State University of New York at Buffalo and his colleagues studied 2,943 white residents of two upstate New York counties who were 35 to 80 years old and had no known liver diseases. The researchers focused on the enzyme gamma-glutamyltransferase. Among men, levels were highest in daily drinkers; among women, weekend drinkers. Stranges speculated that women who confined their drinking to weekends might be imbibing more heavily at each drinking occasion and potentially causing more damage. Women who drank on an empty stomach -- which increases absorption of alcohol -- had more GGT in their blood than women who drank with meals or snacks, even when everyone consumed comparable amounts of alcohol. Among men, food made no difference in enzyme levels. [View Article](#)

Mice May Hold Key to Restoring Human Hearing Loss

12 August – The Woods Hole Marine Biological Laboratory (MBL) announced that in an effort that may someday lead to the treatment of [hearing loss](#) and balance disorders, which currently affect about 28 million Americans, MBL visiting investigators are working this summer to make large numbers of mouse stem cells "grow" into inner ear sensory hair cells-acoustic receptors that are a critical part of the auditory system. Humans are born with only about sixteen thousand of these sound detectors in each ear, which can be easily damaged by age, certain illnesses, exposure to loud sounds, and some medications. Once damaged, the cells do not grow back. And with the cell loss comes irreversible hearing loss. The scientists are collaborating to develop new methods to expand

and maintain adult stem cells isolated from the mouse inner ear to establish long-term stable cell lines. This is the first step toward the ultimate goal of creating implantable human hair cells that will grow and eventually repair damaged hearing. [View Article](#)

Needle-Free Anthrax Vaccine Shows Promise in Animal Studies

25 August – EurekAlert reported that researchers have developed a powdered form of an [anthrax vaccine](#) that could potentially be inhaled through the nose and eliminate the need for needle injections. The new vaccine, which appears promising in preliminary animal studies, may offer a faster and easier way to protect the general population as well as soldiers on the battlefield in the event of a deadly bioterror attack. The vaccine, a joint project of BD Technologies and the U.S. Army Medical Research Institute of Infectious Disease represents a growing pipeline of needle-free drug delivery technologies that are being developed for consumers. The new formulation is based on an anthrax recombinant protective antigen (rPA) and can be formulated as a dry powder and self-administered through the nose using a novel, disposable powder delivery device. The standard delivery for anthrax vaccination is through subcutaneous and intramuscular administration of a liquid formula using conventional needles and syringes, but this method has several drawbacks when employed for mass vaccination, including accidental needle-stick injury, the need for highly trained healthcare professionals and painful injections. The vaccine has not yet been tested in humans, and additional animal studies are needed, but clinical trials could be possible within the next two to three years. [View Article](#)

'Nubiotics' Clear Wound Infections in Mice

23 August - Reuters Health reported that a new type of bacteria-killing compounds, called nubiotics, appear to be potent antimicrobial agents in animal experiments. Nubiotics are based on nucleic acid, the stuff of DNA and RNA, and have shown strong activity against a variety of bacteria in the lab dish. They are believed to be completely different from conventional antibiotics, the researchers say, and can be used to treating burn and wound infections. As they point out in their article, infections of the skin often occur in surgical wounds and burns, and can be difficult to clear. These types of infections require infusions of antibiotics, and germs are becoming resistant to some of the drugs used in such cases. Dale's team evaluated the efficacy of 12 different nubiotics in mice with burn wounds infected with a highly pathogenic strain of the bacterium, *Pseudomonas aeruginosa*. Four of the nubiotics proved "extremely efficacious," with 60 percent to 100 percent of treated mice surviving compared with none of the untreated mice. These nubiotics were effective when given either by injection or when applied directly to the wound, the investigators found, resulting in nearly complete eradication of *Pseudomonas* from the spleen, liver, and blood. In fact, they proved as effective as intravenous administration of ciprofloxacin, "a potent and broad-spectrum" conventional antibiotic. [View Article](#)

'Telepsychiatry' Works for Depression

23 August - Reuters Health reported that when people with [depression](#) can't easily get to a psychiatrist's office, they can be helped by telepsychiatry -- that is, remote treatment delivered over personal-computer-based videoconferencing equipment and cameras mounted on the monitors. In a new study, patients treated through telepsychiatry were as satisfied and their symptoms resolved as early as those who were treated in person. Researchers at the VA Maryland Health Care System in Baltimore enrolled 119 veterans with depression in a clinical trial involving eight therapy sessions over 6 months. Fifty-nine patients were assigned to telepsychiatry, and 60 were treated in person. Depression scale scores were halved, at least, in 49 percent of patients in the remote group and 43 percent of those in the in-person group. Both groups of patients reported high levels of satisfaction, with no difference between groups. The authors calculate the cost of treatment averaged \$86.16 for a telepsychiatry session and \$63.25 for an in-person session. They figure that costs for remote

treatment would be less than that delivered on-site if the physician had to travel more than 22 miles from the medical center to the clinic. [View Article](#)

Toxins in Tobacco Smoke Can Poison Passive Smokers

23 August – The Hindustan Times reported that new research has revealed that [smokers](#) pump out clouds of poisonous toxins, which can be a serious health hazard for those around them. Researchers have shown that endotoxins, which are made by bacteria and occur naturally in the air, are produced by tobacco smoke in high concentrations. The researchers used a unique method of chemical analysis, developed over many years, to measure levels of endotoxins caused by tobacco smoke. Tobacco is known to contain more than 4,000 chemicals, including 50 substances known to cause cancer and endotoxins are a group of poisonous substances produced by bacteria and naturally occur in the air and elsewhere. The research team tried to simulate both passive and active smoking and found that the level of the toxic substances in the air of the smoky room was 120 times higher than in the smoke-free room. [View Article](#)

Focus on Epidemiology

Possible Dialysis-Related West Nile Virus Transmission — Georgia, 2003

20 August – MMWR reported that the Georgia Department of Human Resources, Division of Public Health investigated a possible transmission of [West Nile Virus](#) (WNV) through dialysis at a dialysis center. Two dialysis patients residing in the same neighborhood had confirmed human WNV disease. Both patients were dialyzed on the same day and on the same dialysis machine. A third patient was dialyzed between the two confirmed cases of WNV disease and that patient's blood tests indicated WNV infection at some time in the past. The results of the investigation indicate that WNV may have been transmitted at the dialysis center but do not prove that this occurred. There were no obvious deficiencies in infection control procedures at the dialysis center, but to provide optimal protection against transmission of bloodborne pathogens, dialysis centers should carefully adhere to strict infection control procedures. [View Report](#)

DoD-GEIS: Epidemiological Investigations Worldwide

[DoD-GEIS partners](#) are involved in many diverse epidemiological investigations worldwide. [NAMRU-3](#) Cairo recently assisted [WHO](#) and others in an outbreak of acute Hepatitis E virus in West Darfur, Sudan. [USAMRU-K](#) Nairobi identified O'nyong-nyong virus and leptospirosis illnesses in recent outbreaks of febrile illnesses in Africa. [NAMRU-2](#) Jakarta identified dengue virus in outbreaks of febrile illness in South East Asia. [AFRIMS](#) Bangkok and [NMRC](#) Lima have identified influenza viruses that will be contributed to [WHO](#) to facilitate preparation of effective vaccines. [NHRC](#) has identified important respiratory viruses including adenovirus from Basic Trainee camps, and is an important component of SARS and avian influenza detection capabilities. [AFIOH](#) has been the central hub for influenza virus surveillance and laboratory identification that facilitates Homeland Defense, pandemic preparedness, and cooperation with CDC through participation on VRBAC. [USAMRIID](#) has been involved in smallpox vaccine development and evaluation of clinical illnesses that could involve pox viruses, and viral hemorrhagic fevers. [WRAIR](#) conducts projects including malaria drug resistance testing and [NMRC](#) conducts Rickettsiae diagnostics. [AFIP](#) hosts the Public Health Laboratory Directory and mortality surveillance projects. The [GEIS](#) central hub facilitates information sharing and coordination between these institutions and DoD Health Affairs, AFEB, CDC, WHO, military treatment facilities, the military medical services, and Preventive Medicine activities including USACHPPM and

[NEHC](#). A password-protected [site](#) gives GEIS weekly reports with more details of ongoing investigations. [Mr. Jay Mansfield](#) can assist with passwords for authorized users.

Other timely information can be found in:

The current issue of the Army Medical Surveillance Activity's [Medical Surveillance Monthly Report](#)
This week's Centers for Disease Control and Prevention's [Morbidity and Mortality Weekly Report](#)

USCENTCOM

Kyrgyzstan: Dozens Hospitalized With Suspected Anthrax in South

23 August – IRIN reported that almost two dozen people with suspected [anthrax](#) have been hospitalized in southern Kyrgyzstan over the past week. Twenty residents of Aravan district in the southern Kyrgyz province of Osh have been hospitalized with suspected cutaneous form of anthrax. Artykbai Eraliev, deputy head of the Osh provincial epidemiological control department said, "In 12 cases the diagnosis has been confirmed." The infected people slaughtered a sick cow and distributed its meat. The animal was purchased by local residents in neighboring Uzbekistan, smuggled across the border and slaughtered without a veterinary certification, the Kyrgyz health official maintained. Several hundred people who were believed to have consumed the meat have been brought in for medical observation. Experts cite poor veterinary and sanitary control coupled with consumers' negligence and ignorance as the root causes of the problem. The issue is aggravated by some 250 old anthrax foci in the province - places where infected animals were buried - of which only 153 have been fenced and covered with concrete in an effort to mitigate the risk. [View Article](#)

USEUCOM

Chad: Hepatitis E

19 August – ProMED reported that between 26 June and 13 August, 672 cases and 21 deaths of acute jaundice syndrome were reported in Goz Amer, a camp of Sudanese refugees, by a WHO/Ministry of Health (MOH) joint mission. Antibodies for [hepatitis E](#) virus (HEV) were confirmed in 7 samples. A HEV outbreak with similar characteristics has been confirmed among internally displaced people (IDP) in the Greater Darfur region, Sudan. Both outbreaks are related to an insufficient supply of clean water and poor sanitary conditions in refugee and IDP camps on both sides of the Chad-Sudan border. WHO, the United Nations High Commissioner for Refugees (UNHCR), and nongovernmental organizations present in the area are currently supporting the MOH in the implementation of control measures including water chlorination, safe disposal of excreta, and community health education, as well as in strengthening disease surveillance. [View Article](#)

Making Africa a Malaria Isolation Ward

20 August – AllAfrica.com reported that despite an exciting new development this week in the race to find cheaper and more effective malaria drugs, a group of scientists is urging health authorities to consider screening travelers from malaria-infested areas to prevent the spread of drug resistance around the world. Researchers have shown that resistance to the antimalaria drug sulphadoxine pyrimethamine (SP) in African patients has been imported from Southeast Asia. The scientists say one way to slow the spread of such resistance among African patients would be to stop travelers

carrying drug-resistant malaria parasites in their blood from landing on African soil. Roper says the fact that resistance to pyrimethamine did not originate in Africa means a coordinated international effort could combat its spread. This could be done by screening travelers from malaria-infested areas who may unwittingly transmit the drug-resistant parasites to other parts of the world. The World Health Organisation estimates that malaria claims 1-million lives in Africa each year. [View Article](#)

Passenger Screening Advised To Cut Risk of Drug-Resistant Malaria in Africa

19 August - EurekAlert reported that imported resistance has rendered ineffective the two affordable [malaria](#) drugs which have been the mainstay of malaria treatment in Africa for forty years. Researchers believe that mutations causing drug resistance in Plasmodium falciparum (the parasite which causes the most deadly form of malaria) originated in South East Asia and were then imported and spread across Africa – leading to the demise of both chloroquine and sulfadoxine pyrimethamine as effective, affordable treatments. Dr. Cally Roper of the London School of Hygiene & Tropical Medicine, the lead author of the article, comments: 'Several replacement treatments are already compromised by the emergence of resistance in Asia. We suggest that careful thought should be given to preventing further import of resistant parasites, perhaps by the screening and treatment of passengers traveling from South East Asia or South America to Africa. 'The widespread introduction of artemisinin-based combination therapy could also help to minimize the rate at which resistant parasites can spread. Most importantly, these data demonstrate that antimalarial drug resistance is an international problem that requires a coordinated, international response'. [View Article](#)

Polio Returns to Guinea, Mali, New Cases in Darfur

24 August – Reuters reported that [polio](#) has spread to two more African countries where it had been eradicated highlighting the risk of a major outbreak across west and central Africa. One case was confirmed in Guinea and two in Mali, the first in both countries since 1999, while three new cases were also detected in the Darfur region of west Sudan. "The ongoing polio outbreak, which originated in northern Nigeria, continues to infect new countries, underscoring the threat of a major epidemic," the group, which includes the World Health Organization (WHO), said in a statement. Late last month, the Nigerian state of Kano agreed to lift its ban on vaccines. But during the 10-month halt, the polio virus spread rapidly inside Africa's most populous country, with the infection rate tripling to 346 cases so far in 2004. It also crossed borders, with the latest cases in Guinea and Mali taking to 12 the number of countries to report the return of the disease since the start of 2003. [View Article](#)

Russia: 126 People Hospitalized with Tickborne Encephalitis

24 August – ProMED reported that according to sanitary epidemiological surveillance center information, since the beginning of the year a total of 3774 people had attended health centers for treatment of tick bites. Among these people 723 were children. Tick encephalitis virus antigen was detected in 207 ticks. 126 people were hospitalized with a diagnosis of [tickborne encephalitis](#), of whom 17 were children. As of 20 August, 8 of those people contracting tick-borne encephalitis have died. [View Article](#)

Russia: An Outbreak of Leptospirosis Is Reported In Mordovia

23 August – ProMED reported that an outbreak of [leptospirosis](#) has been reported in the Mordovia republic. According to the republic's sanitary and epidemiological center, the number of clinically confirmed cases of leptospirosis has increased to 80, which is 5 times more than in 2003 (16 cases). Fifty-eight of the infected people, half of them children and teenagers, reside in Zubovo-Polyanskiy

village. It was confirmed that all of the infected people were swimming in the Parza River, which passes through the village. [View Article](#)

Sierra Leone: Cholera Outbreak Claims 20 Lives

23 August – The Turkish Press reported that heavy rains flooding the streets of Freetown have contributed to a new [cholera](#) outbreak in Sierra Leone, officials said Monday, with at least 20 deaths reported in the capital since early August. Noah Conteh, director general of medical services for the health ministry in the west African state, said there have been "increasing reports of cases of watery diarrhea in clinics in the capital in recent weeks and laboratory tests conducted on collected specimens have confirmed evidence of cholera." Cholera, a bacterial infection in the small intestine which is characterized by extreme dehydration and diarrhea, thrives in conditions where water sources are compromised through poor sanitation. Freetown's war-ravaged infrastructure and public utilities, coupled with weeks of rain that has crumbled buildings and left commuters stranded in thigh-high water, have been a veritable incubator for the disease that can be relatively simple and inexpensive to treat. [View Article](#)

South Africa: Parents Urged to Help Curb Measles Outbreak

19 August - IOL reported that the city of Johannesburg is experiencing a [measles](#) outbreak, and health department officials have appealed to parents and caregivers to ensure that all children are immunized. Common problems associated with measles are chest infections, pneumonia, throat inflammation, gastroenteritis, dehydration and encephalitis, said Dr Baski Desai, deputy director of Communicable Disease at city of Johannesburg Health Services. [View Article](#)

USNORTHCOM

E. Coli Outbreak Prompts Warning About Petting Zoos

19 August – Canada.com reported that a health warning to parents was to be issued today after six cases of potentially deadly [E. coli](#) illness in children were linked to British Columbia petting zoos. Sally Greenwood of the B.C. Centre for Disease Control said the centre has records of two clusters of *E. coli* illness in children who visited a petting zoo in North Vancouver and another in Abbotsford. Greenwood said petting-zoo animals can have feces in their fur from lying in their droppings, and that feces can contain the *E. coli* bacteria. The Centre for Disease Control and the Kidney Foundation are expected to issue an advisory to the public today. David Vawter, executive director of the Kidney Foundation, said the notice may scare parents, but it's important to make the information public considering the potentially deadly results of an *E. coli* infection. "With *E. coli* and with children, the potential for kidney failure is very high," he said. "The potential is there, but I think if you wash your hands with soap and hot water, the chance of infection is almost zero." [View Article](#)

Florida on Guard for West Nile Outbreak after Charley

19 August – Reuters reported that Floridians are being urged to drain standing pools of water to cut the risk of an outbreak of [West Nile](#) or other [mosquito-borne disease](#) in the wake of Hurricane Charley. The storm killed 22 people, destroyed thousands of buildings and brought heavy rains to much of the state, creating an ideal breeding ground for the mosquitoes that spread West Nile and other viruses. Many homes, especially in the hard-hit southwestern part of the state, were left without air-conditioning and the window and porch screens to keep the insects at bay. Most people who are

infected suffer nothing more than headaches and flu-like symptoms, but the elderly, chronically ill and those with weak immune systems can develop fatal encephalitis and meningitis. [View Article](#)

Government Releases Plan Focusing on Obesity

24 August – Reuters reported that the U.S. National Institutes of Health was launching a systematic campaign to fight [obesity](#), which now affects close to two-thirds of the U.S. population and threatens to overtake smoking as the leading cause of death. The plan calls for targeting obesity at several levels, including behavioral and environmental changes such as better city planning to encourage exercise; developing better drugs and surgical approaches; finding out and fighting the ways obesity causes diabetes, heart disease, and certain cancers; and translating the research into something people can use. "On the surface, it may seem that the solution to the obesity epidemic is obvious: 'Get people to eat less and exercise more,'" the plan reads. "The reality is that this change is very difficult to accomplish, and research is critical to address the issue successfully." [View Article](#) [View Report](#)

Managing Occupational Exposures to Potential Bioterrorist Agents

20 August – EurekaAlert reported that laboratories working with [biological threat agents](#) must develop comprehensive programs in order to minimize the risk of occupational exposures, according to investigators at the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID). Janice M. Rusnak, M.D. and colleagues at USAMRIID note that research on agents of bioterrorism is becoming more widespread but institutions beginning such work may have limited clinical experience or procedures for the medical management of laboratory exposures to these agents. Rusnak and her team reviewed potential laboratory exposures at the Institute between 1989 and 2002. The review noted only five confirmed laboratory-acquired infections, out of 234 evaluations of potential exposures and illnesses, in a fourteen-year period. These confirmed cases involved [glanders](#), [Q fever](#), [vaccinia](#), [chikungunya](#) and [Venezuelan equine encephalitis](#). All five individuals made a full recovery.

In a related article, Rusnak and her colleagues reviewed the Institute's policies and management guidelines for occupational exposures to biological agents. The review demonstrated an average of 19 evaluations per year; however, the majority of these were low risk, as USAMRIID policy has been to evaluate promptly even the most minor laboratory incident, such as a paper cut, to minimize the potential of anyone becoming ill or spreading diseases to the community. Early evaluation of potential occupational exposures at USAMRIID allowed early intervention with post-exposure antibiotics. No individuals who were evaluated to determine their need for antibiotics subsequently became ill. Based on the success of this practice, the Rusnak team developed a flow chart for evaluation of potential exposures and determination of the need for antibiotic prophylaxis. "Vaccination of laboratory workers against agents such as [tularemia](#), Q fever, and Venezuelan equine encephalitis contributed to a notable decrease in infection rates during the offensive biological warfare program," Rusnak said. [View Article](#)

Patient with Mad-Cow-Like Brain Ailment Dies

20 August – The Seattle Times reported that the woman treated at Harborview Medical Center this summer for a mysterious brain ailment related to mad-cow disease has died. The woman, who Hofmann said was under the age of 60, was not a resident of Washington and did not die here. She was treated at Harborview Hospital, where doctors performed a brain biopsy, collecting a tiny sample of brain tissue they hoped would help them diagnose the baffling illness, characterized by dementia. When pathologists examined the brain tissue, they saw evidence that the woman was suffering from a [prion disease](#). They ruled out mad-cow disease and its human form, Creutzfeldt-Jakob disease, but

they were not able to make a definitive diagnosis, partly because the tissue sample was so tiny. [View Article](#)

Possible Source of Lake Erie Illness Found

25 August – ProMED reported that the number of people who have gotten sick at Lake Erie's Put-in-Bay resort has now reached nearly 900. That's up from just 78 a week ago (3rd week of August 2004). On 24 August, the state health director, Dr. Nick Baird, announced that they had found the source of the mysterious gastrointestinal illnesses. Dr. Baird said, "We're able to determine it's water related, and now we're focusing on epidemiological [investigation] and analysis of that information so we can move forward with solutions." Dr. Baird said that water samples are being sent to 3 state labs. Governor Bob Taft said that health is priority number one, but he understands the worries about the effect of the outbreak on the resort's economy that South Bass Island area officials are feeling. Some local merchants say they haven't seen a drop in their business. Meanwhile, health experts suggest that visitors to the island take along bottled water. [View Article](#)

Southern California Death Toll from WNV Rises to Six

24 August – Pest Control Technology Online reported that a sixth Southern Californian, the third in Los Angeles County, has died of the [West Nile virus](#), and officials warned that most victims of the disease have developed other, more serious illnesses, including [encephalitis](#) and [meningitis](#). Health officials also said the threat of the disease will remain high into October. Los Angeles County health officials reported that 25, or more than two-thirds, of the 35 human cases diagnosed in July developed into more serious diseases, including eight cases of encephalitis, 16 cases of meningitis and one case of [acute flaccid paralysis](#), a polio-like syndrome that leaves some people unable to walk. [View Article](#)

Study: 1 In 3 Adults Have High Blood Pressure

23 August – MSNBC reported that the number of American adults with [high blood pressure](#) has climbed to almost one in three over the past decade, putting more people at risk of a stroke, heart attack or kidney failure. The new figures are from Census data and a 1999-2000 National Health and Nutrition Examination Survey, which included 4,531 adults. It estimates that 31.3 percent of Americans have high blood pressure, up from 28.9 percent in the previous national health report from 1988-94. Two decades ago, it was falling. About 65 million American adults now have high blood pressure — 30 percent more than the 50 million who did in the previous decade. The report did not specifically examine reasons for the spike, but experts said the aging U.S. population and the growing proportion of overweight and obese Americans are probably major contributors. High blood pressure is defined as 140 over 90 or higher. Blood pressure less than 120 over 80 is generally considered ideal. [View Article](#)

USDA Sets up Terror Defense

22 August – Quad Cities Times reported that [agro-terrorism](#) — the use of microbes and poisons to shake confidence in the U.S. food supply and devastate the \$201 billion farm economy threatens the vast American hinterlands. Unlike the most feared bioterrorism threats, such as smallpox or anthrax, some virulent agricultural diseases are easily handled because they are harmless to humans. The diseases can be obtained from infected crops and animals worldwide. No known intelligence has linked terrorists to attempts to compromise the food supply, but concerns were sparked after investigators discovered that the Sept. 11 hijackers had explored the use of crop dusters. Last year, Sen. Susan Collins, R-Maine, chairwoman of the Governmental Affairs Committee, said U.S. forces found "hundreds of pages of U.S. agricultural documents" in caves in Afghanistan once occupied by

al-Qaeda militants. "The expertise needed to mount a serious attack is quite small," said University of California, Davis, microbiologist Mark Wheelis. To meet the threat, the Department of Agriculture is building or modernizing two dozen laboratories to quickly screen disease samples from around the United States. It has created SWAT teams of plant and animal pathologists in each region to respond to outbreaks and is proposing to spend \$381 million on bio-defense in 2005. [View Article](#)

U.S. Prepares for Possible Flu Outbreak

25 August – ABCNews.com reported that the United States may have to close schools, restrict travel and ration scarce medications if a powerful new [flu](#) strain spurs a worldwide outbreak, according to federal plans for the next pandemic. It will take months to brew a vaccine that works against the kind of super-flu that causes a pandemic, although government preparations include research to speed that production. The federal plans have been long-awaited by flu specialists, who say it's only a matter of time before the next pandemic strikes and the nation is woefully unprepared. Concern is rising that the next pandemic could be triggered by the recurring bird flu in Asia, if it mutates in a way that lets it spread easily among people. It's impossible to predict the next pandemic's toll, but a bad one could kill up to 207,000 Americans, says the Pandemic Influenza Response and Preparedness Plan. [View Article](#) [View Plan](#)

U.S. to Develop Trial Anthrax Treatment

20 August – The Seattle Post-Intelligencer reported that soldiers vaccinated against [anthrax](#) have the opportunity to help future anthrax victims by donating their blood. The government plans to develop an experimental treatment for anthrax from the blood of people vaccinated against it. Federal health officials are aiming for an emergency stockpile that could treat about 2,700 people in case of another anthrax attack. Troops at Fort Campbell, KY get \$60 for a liter of their blood plasma and they can donate up to once a week. All troops deploying to Iraq, Afghanistan and other U.S. Central Command countries, as well as Korea, are required to get anthrax shots. To make the new medication, called anthrax immune globulin, or AIG, scientists will use antibodies, protective proteins from the soldiers' plasma, the watery part of the blood. "We think there is a good chance that AIG would help improve survival in patients with severe anthrax diseases, but we don't know for sure," said Dr. Clare Dykewicz, a medical epidemiologist with the Centers for Disease Control and Prevention, which is running the program. [View Article](#)

Vitamin D Deficiencies Found In Some Adolescents

20 August – US News and World Report reported that you can get vitamin D from standing in the sun—your skin makes the vitamin in response to UV light—or from your diet. Researchers from Harvard Medical School measured vitamin D in kids at Children's Hospital Boston to see whether [vitamin D deficiency](#) is common among healthy adolescents. Three hundred and seven patients ages 11 to 18 were recruited when they had routine physical exams. Patients who were visiting because they were sick weren't eligible for the study. Nearly a quarter of the adolescents didn't have enough vitamin D in their blood. Vitamin D deficiency was most common among black adolescents and more common in winter and spring than summer and fall. Darker skin may block UV light from reaching the part of the skin where vitamin D is synthesized. Kids who drank a lot of soft drinks and juice also had lower vitamin D levels; this may be related to the trend for children to drink less milk. Overweight adolescents were also more likely to be low on vitamin D. [View Article](#)

Wrangling Impedes Transfer of Civilian Anthrax Vaccine

20 August 20 – The New York Times reported that despite pledges two years ago to maintain a stockpile of drugs to protect Americans in the event of a bioterrorism attack, the federal government has so far set aside only enough [anthrax](#) vaccine for 530 civilians. BioPort, the nation's sole producer of licensed anthrax vaccine, was storing nearly a million doses - enough for more than 330,000 people. But a spokesman for BioPort and Pentagon officials said that the doses being stored are intended for the military, which is expanding its anthrax and smallpox vaccination program. If those doses were used by civilians in an emergency, officials said, military vaccinations would have to be curtailed or scaled back. The Bush administration had not implemented an interagency agreement in which the Pentagon agreed to provide at least two million doses of anthrax vaccine to the civilian stockpile by the end of this fiscal year. [View Article](#) (registration required)

USPACOM

AIDS Rapidly Increasing in Papua New Guinea

17 August - The Asia-Pacific Disease Outbreak/Surveillance News reported that Papua New Guinea (PNG) may soon realize an [AIDS](#) crisis of southern African proportions. The government, experiencing corruption and mismanagement, has been slow to respond. WHO estimates that at least one in 100 Papua New Guineans are infected with HIV. Out of a population of 5.2 million, approximately 150 people are infected each month -- an increase of 20 percent per year. HIV/AIDS in PNG is spread mainly through heterosexual contact within an atmosphere of promiscuity, a high incidence of rape and increasing prostitution in the major towns and cities. [View Article](#)

Bird Flu in Pigs No Epidemic say Chinese Officials

25 August – The Taipei Times reported that China insisted that although a highly lethal strain of the [bird flu virus](#) had been found in pigs, it did not constitute an epidemic. The H5N1 strain extracted from swine in the southeastern province of Fujian last year was "extremely small" and no mutation of the virus into a form more dangerous to humans had been observed. The report was the latest cautious official attempt at clarification following the announcement by a respected scientist last week that H5N1 had been detected in pigs in 2003 for the first time ever. The scientist, national bird flu laboratory director Chen Hualan, was quoted by the paper as playing down the possible implications of the discovery. "The probability of isolating H5N1 virus from pigs was less than one in a thousand," she said. On Friday Chen had said H5N1 was discovered in pigs both in 2003 and 2004. She called it "a rather dangerous signal in terms of public health." Researchers fear that infection among pigs could be the first step in a mutation of the virus into a form that could spread more easily to humans. Until now H5N1 had been found only in poultry. [View Article](#)

India: 8 with Fever Diagnosed with Scrub Typhus

23 August – ProMED reported that as many as 8 patients, suffering from a "high-grade fever," admitted to Indira Gandhi Medical College are suspected to be afflicted with [scrub typhus](#) disease. A 25-year-old resident of Sirmaur tested positive for scrub typhus and is in very critical condition. He had been suffering from a high fever for the past 6 days. Weil-Felix tests will be conducted to confirm the disease. [View Article](#)

India: Malaria Epidemic in Gujarat

19 August – The Hindu reported that health officials have swung into action to prevent the spread of [malaria](#) epidemic in Gujarat where 24 people have lost their lives in a fortnight. “Eleven deaths out of these 24 -- mostly of old people -- are due to malaria while the remaining are due to some other ailments. Over 30 others have been shifted to the local civil hospital for treatment,” said a top district official. The disease spreads due to heavy waterlogging after recent rains and moreover being a paddy growing village, water remains stored there for a longer time, thus becoming a perfect place for mosquitoes, the official said. [View Article](#)

Leptospirosis Exposure Rate High in American Samoa

19 August - The Asia-Pacific Disease Outbreak/Surveillance News reported that the prevalence of [leptospirosis](#) shows a 15% exposure rate as opposed to the normal exposure rate of 10%. People with piggeries must make changes in order to combat the spread of the waterborne bacterial disease. Leptospirosis is commonly caused by animal urine or fecal matter in drinking water. Symptoms include high fever, severe headache, chills, muscle aches, and vomiting, and may include jaundice, red eyes, abdominal pain, diarrhea, or a rash. If left untreated, the patient could develop kidney damage, meningitis, liver failure, and respiratory distress. In rare cases death occurs. [View Article](#)

Malaysia: Council Confident Kuala Lumpur can Contain Flu

25 August – The Star Online reported that Malaysia should be able to overcome the [avian flu](#) problem, said the Southeast Asia of the USA Poultry and Egg Export Council. “We are confident that Malaysia will be able to control it soon. They are open about it. They took immediate steps. We don’t see the situation worsening,” said council regional director Margaret Say. She said the manner in which Malaysia handled the crisis offered an example for Vietnam, China and Thailand, which had been hit by the bird flu twice this year. The Veterinary Services Department said that blood and cloacal samples from poultry in areas within a 10km radius of the affected farm in Kampung Pasir Pekan were being tested for Highly Pathogenic Avian Influenza (HPAI). “Continuous checks on chicken, ducks and pet birds in Tumpat, Pasir Mas and Kota Baru have revealed that there are no new signs of HPAI,” he added. [View Article](#)

Multiple Diseases Continue in Flood Affected Bangladesh

17 August - The Asia-Pacific Disease Outbreak/Surveillance News reported that [pneumonia](#) continues to be prevalent in flood shelters with 837 more children contracting the infection on 17 August. Pneumonia has infected 13,413 people, (mostly newborns) with 55 deaths from 4-16 August. The [diarrhea](#) outbreak continues in the flood-affected areas. Two more patients died of the disease while 5,926 more people were affected, bringing the number to 176,041 since 12 July. [Hepatitis](#) affected 587 people. Another 2763 [dysentery](#) patients reported to various medical camps 17 August. A total of 31,830 people were sickened by the disease, which infects the intestine. [Skin](#) and [eye diseases](#) also increased with 26,494 patients reporting to medical camps. Another 44 people contracted [dengue](#) in the capital. A total of 2,097 people have been treated for dengue, which killed 5 people since June. [View Article](#)

"Mystery Illness" Confirmed as Malaria in Papua New Guinea

22 August – ProMED reported that health authorities have confirmed that the mysterious illness that killed over 90 people in the Kagua district of the Southern Highlands province early this year was [malaria](#). Michael Mombu, acting coordinator for Rural Health Services in Mendi, said yesterday that

they discovered from the analysis of blood samples taken that the victims died of malaria. The teams collected blood samples, while carrying out mass drug administration and spraying DDT at suspected breeding areas. He said the situation appears to have been brought under control, because no more deaths have been reported in the area. He said that in other parts of the province, like Poroma in the Nipa/Kutubu electorate, where similar outbreaks were reported to have claimed 30 lives, a similar exercise was implemented to bring the situation under control. [View Article](#)

Philippines: Rabies Outbreak Feared in Iloilo City

22 August – ProMED reported that Mayor Jerry Trenas expressed fear of a [rabies](#) outbreak in Iloilo City. Forty-three rabies infections have already been reported, 17 more than 2003's total of 26. Records show that 53 percent of those infected are between 5 and 14 years. 98 percent of the infections come from pets; while only 10 percent originate from stray dogs (the total of 108 percent is not explained). Eight people have died of rabies in Iloilo Province. The anti-rabies control program includes massive pet registration, anti-rabies vaccination, and neutering of dogs not intended for breeding. Early signs of rabies infection include fever, headache, sore throat, and feeling of tiredness. As the virus gets to the brain, the person may act nervous, confused, and upset. Other signs include pain at the site of the bite, hallucination, hydrophobia, and paralysis, and as the disease advances, the person enters into a coma and subsequently dies. [View Article](#)

USSOUTHCOM

Hantavirus Cases in Central Brazil (Federal District and Goias State)

19 August – ProMED reported that between May and August, 17 cases of [hantavirus](#) pulmonary syndrome were reported in people living in the Federal District. 9 deaths have taken place, with a case fatality rate of 53 per cent. Four additional cases of the disease were confirmed in residents in the State of Goias, with 2 deaths. This is the first report of hantavirus in this region of the country. [View Article](#)

Please contact us to comment on or suggest improvements to this report. This report is also available on the [USACHPPM website](#).

Eileen Resta
eileen.resta@amedd.army.mil

Approved:
[Kevin Delaney](#)
Chief, Health Information Operations
(410) 436-5217 or DSN 584-5217