

DOE – Medical and Infectious Disease Update – Wednesday, July 7, 2004

DOE weekly updates on Bird Flu, Human Influenza, West Nile Virus, or other illnesses and medical issues will continue as appropriate or as requested. The following information is current as of Thursday, July 08, 2004, 0700 hours, EST. Information presented is routinely taken from [The Centers for Disease Control and Prevention \(CDC\)](http://www.cdc.gov/), [The World Health Organization \(WHO\)](http://www.who.int/en/), <http://www.who.int/en/>, the Department of Defense [Global Emerging Infections Surveillance and Response System](http://www.geis.fhp.osd.mil/), (**DoD-GEIS**), <http://www.geis.fhp.osd.mil/>, and other credible sources. **See Editor's note below.**

Recent News

West Nile Virus Activity – Through 6 July 2004, there have been a total of 78 cases, and 1 death. See pages 3-4 of this update for details.

ALLERGY-The Accuweather page provides current air quality information with specific charts for **Grass Pollen, Overall Pollen, Ragweed Pollen**, and **Tree Pollen** ... http://www.accuweather.com/adcbn/public/maps_index.asp?type=airq.

Milk (Calcium) may protect against bowel cancer – 7 July 2004, by Anna Gosline, **The NewScientist News Service** --Drinking milk may protect against bowel cancer, suggests a new study on the dairy-eating habits of more than half a million people. Colon cancer is now the third most common cancer in the world. Almost a million people are diagnosed with the disease each year. Research has long hinted at a connection between calcium and reduced colorectal cancer risk. Animal studies showed that calcium, an important signalling molecule for colon cell organisation, can slow cell growth in the intestinal lining and limit early stage tumour development. A previous study showed that [diarrhoea-causing](#) infections also seem impede the cancer's progress possibly because they trigger a massive influx of calcium to gut cells ... <http://www.newscientist.com/news/news.jsp?id=ns99996122>.

Findings Shed Light on Why Doctors Don't Wash Hands - 6 July 2004, **Reuters Health**, NEW YORK –Having a busy workload and being in a technical medical specialty increase the odds that a physician will not follow hospital handwashing guidelines, new research suggests. Previous reports have shown that compliance with such guidelines typically falls below 50 percent. Yet, the reasons why many physicians fail to comply are unclear, according to the report published in the *Annals of Internal Medicine*. To investigate, Dr. Didier Pittet, from the University of Geneva in Switzerland, and colleagues used direct observation and self-report questionnaires to evaluate handwashing factors among 163 physicians at a large university hospital. Adherence with hand hygiene guidelines averaged 57 percent, with internists having the highest rate - 87 percent -- and anesthesiologists having the lowest - 23 percent. Factors associated with sticking to handwashing rules included awareness of being observed, belief of being a role model for other colleagues, a positive attitude toward handwashing after patient contact, and easy access to wash facilities, the authors note. As noted, a high workload and being in a technical specialty like surgery or anesthesiology were identified as predictors of not complying with hand hygiene guidelines. "After more than 150 years of prodding, cajoling, educating, observing, and surveying physicians, hand hygiene adherence rates remain disgracefully low," Dr. Robert A. Weinstein, from Rush Medical College in Chicago, notes in a related editorial ... <http://www.reuters.co.uk/newsArticle.jhtml?type=healthNews&storyID=5591193§ion=news>.

Gene therapy (for cancer) in China attracting Westerners –

5 July 2004, **United Press International**, BEIJING, China --China has developed a gene therapy for cancer, which has attracted terminally ill cancer patients from Europe and the United States. Xinhua, China's main government-run news agency, reported Monday that the gene p53, is inserted into a virus, which is then injected into patients. The gene, present in healthy cells, is "switched off" or mutated in many cancer patients. When the treatment, called **Gendicine**, is reinserted into tumor cells by the virus, it triggers their self-destruction and programs cancer cells to commit suicide...

<http://washingtontimes.com/upi-breaking/20040705-093724-7232r.htm>.

World AIDS crisis deepens and spreads - 4 July 2004, by Shaoni Bhattacharya, **The NewScientist News Service** --The greatest number of people to contract HIV/AIDS in any one year since the start of the epidemic was seen in 2003, reveals the UN's annual AIDS report. About 4.8 million people were newly infected with AIDS in 2003. And globally the number of people with AIDS is continuing to grow, warns the report, from 35 million in 2001 to 38 million in 2003. "In 2003, almost five million people became newly infected with HIV, the greatest number in any one year since the beginning of the epidemic," says the report. More people also died of AIDS in 2003 – three million – than in any previous year, said Peter Piot, executive director of UNAIDS, at the launch of the document in London, UK, on Tuesday. "The epidemic shows no sign of weakening its grip on human society," writes Kofi Annan, UN secretary general, in the report's foreword ...

<http://www.newscientist.com/news/news.jsp?id=ns99996114>.

American Diet Boosts Stroke Risk – 1 July 2004, by Sid Kirchheimer, **WebMD** -- The diet usually recommended to reduce the risk of the nation's two leading causes of death -- heart disease and cancer -- is now linked to a lower risk of the third -- stroke. Once again, researchers say the best edible insurance for reducing the risk of strokes -- which strikes an American every 45 seconds and kills one every three minutes -- is to eat more fruit, vegetables, and other high-fiber fare, and less of what most folks usually eat. After tracking nearly 72,000 women for 14 years, researchers found that women who ate the most fruits, vegetables, fish, and whole grains were less likely to have a stroke than those who ate less of this healthy fare. **The less-healthy diet was more typical of the American way of eating -- more red and processed meats, refined grains, and sweets** ...

<http://dailynews.att.net/cgi-bin/health?e=pub&dt=040701&cat=news&st=news100525&src=webmd>.

Scientists discover molecular pathway leading to nerve growth, regeneration

- June 30, 2004, by Karen A. Tucker, **University of North Carolina at Chapel Hill (UNC) School of Medicine**, CHAPPEL HILL -- UNC scientists discover molecular pathway leading to nerve growth, regeneration that may have implications for spinal cord research. The new research, published in the June 24 issue of the journal *Neuron*, for the first time describes how nerve growth factor (NGF) stimulates a sequence of proteins – a molecular pathway – that promotes nerve growth. "It is the first study to show the link between NGF and the building blocks that form the axon," said Dr. William Snider, professor of neurology and cell and molecular physiology at UNC's School of Medicine and director of the UNC Neuroscience Center. Axons are long tendrils, or processes, that extend from nerve cells to form connections with other nerve cells, muscles and the skin. Injury to the peripheral nervous system – that portion of the nervous system outside the brain and spinal cord – typically results in spontaneous regeneration and repair. However, this is not the case with the spinal cord, where disruption of connections from injury leads to paralysis ...

<http://www.unc.edu/news/newsserv/archives/jun04/pathway063004.html>.

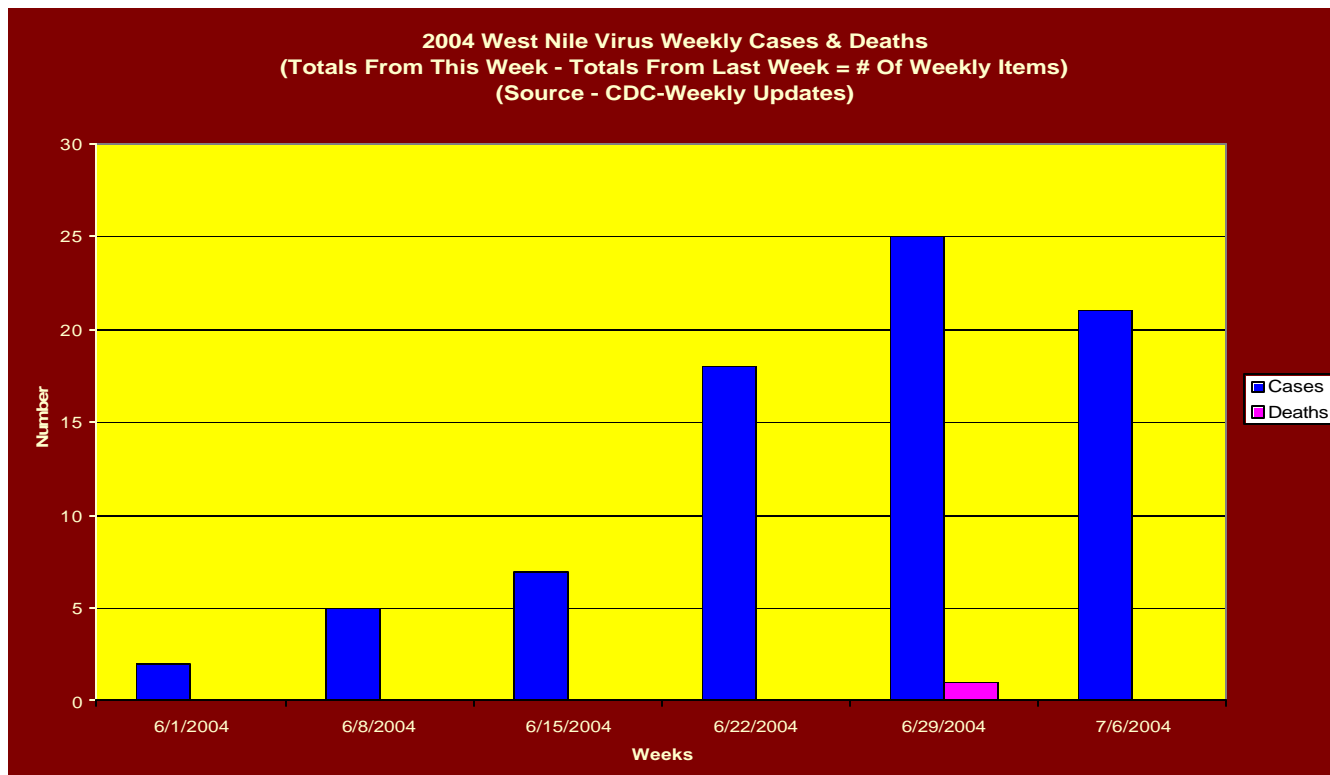
2004 West Nile Virus Activity in the United States, reported to CDC. (WNV) – Through 6 July 2004, there have been a total of **78** cases & **1** death from **8** states. **21** new cases and **no** deaths were added this past week.

WNV State Cases and Deaths - For additional 2004 information, [click here](#)

State	Neuroinvasive disease	Fever	Other Clinical/ Unspecified	Total Human Cases Reported to CDC	Deaths
Arizona	42	8	7	57	1
California	4	8	0	12	0
Florida	1	1	0	2	0
Michigan	1	0	0	1	0
Nebraska	0	1	0	1	0
New Mexico	0	3	0	3	0
South Dakota	1	0	0	1	0
Wyoming	0	1	0	1	0
Total	49	22	7	78	1

http://www.cdc.gov/ncidod/dvbid/westnile/surv&controlCaseCount04_detailed.htm

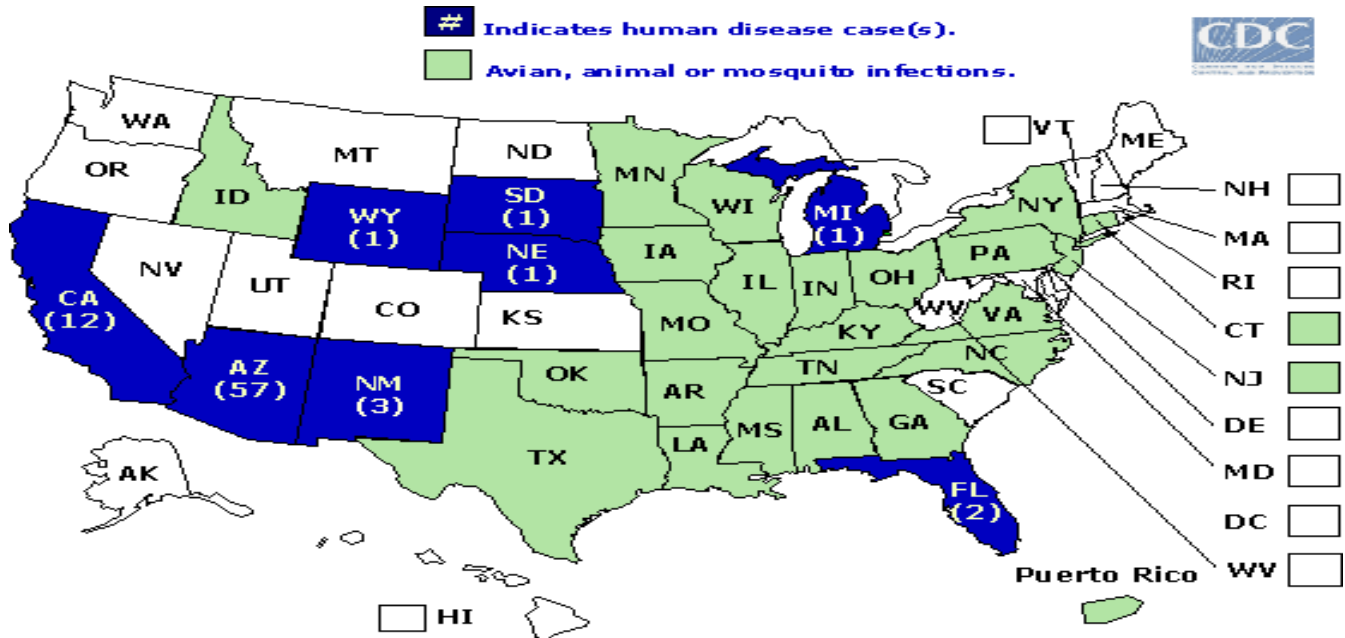
WNV Weekly Cases and Deaths



2004 West Nile Virus Activity in the United States, reported to CDC. [Maps](#) reporting WNV avian and veterinary activity occurring during 2004 are updated regularly. **For the week ending 6 July 2004, there were a total of 21 new cases and no new deaths.**

**2004 West Nile Virus Activity in the United States
(reported to CDC as of July 6, 2004*)**

<http://www.cdc.gov/ncidod/dvbid/westnile/surv&control04Maps.htm>



*Currently, WNV maps are updated regularly to reflect surveillance reports released by state and local health departments to the CDC Arbonet system for public distribution. Map shows the distribution of avian, animal, or mosquito infection occurring during 2004 with number of human cases. If West Nile virus infection is reported to CDC Arbonet in any area of a state, that entire state is shaded accordingly.

Note: This is the last DOE Medical Update which I will edit. I am leaving DOE to work for the US Army as medical biosurveillance officer at the Barquist Health Clinic, Fort Detrick, located in Frederick, Maryland. I hope you have enjoyed these update as much as I have enjoyed putting them together for you.

Best regards,

George R. Gebus, MD, MPH, Editor
 US Department of Energy
 Office of Occupational Health, EH-53/270CC
 19901 Germantown Road
 Germantown, MD 20874-1290
 Phone: 301-903-2876
 Fax: 301-903-5072
 Email: george.gebus@eh.doe.gov
<http://www.eh.doe.gov/index.html>