6 March 2015

Army Public Health Weekly Update

U.S. Army Public Health Command

U.S. Military | Global | Influenza | Veterinary/Food Safety | Wellness | Contact Us

USAFRICOM | USCENTCOM | USEUCOM | USNORTHCOM | USPACOM | USSOUTHCOM

Contents

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U.S. MILITARY

- Estimates of incidence rates and proportions of TBI and PTSD diagnoses attributable to background risk, enhanced ascertainment, and active war zone service, Active Component, U.S. Armed Forces, 2003–2014
- Mental health soon after war-zone concussions predicts disability

GLOBAL

- Billions ‘have untreated tooth decay’
- Chikungunya vaccine looks promising in phase 1 trial
- Cut music to ‘an hour a day’ – WHO
- Disasters have same human impact as tuberculosis: U.N.
- Hepatitis E vaccine has lasting effect
- New drugs pose serious health risks says UN body
- Spider venom may hold chemical keys to new painkillers
- Study: HPV vaccination programs cut infections, anogenital warts
- What kills more women than AIDS and breast cancer? Dirty water
- EBOLA VIRUS DISEASE
- Ebola and Africa’s medicine men
- Ebola levels on the rise in Guinea, Sierra Leone
- Ebola outbreak: Liberia releases last patient
- Nearly 30 countries ‘highly vulnerable’ to Ebola-style epidemic: charity
- Trial of Ebola drug ZMapp launches in Liberia, US
- WHO to begin large-scale testing of Ebola vaccine in Guinea

INFLUENZA

- Adults get flu ‘about once every five years’
- Armed Forces Health Surveillance Center: DoD Seasonal Influenza Surveillance Summary
- CDC: Weekly Influenza Surveillance Report
- Evidence of H5N1 antibodies low in poultry workers: study
- FDA panel endorses WHO picks for 2015-16 flu vaccine
- Flu News Europe
- H7N9 hospitalizes another in China
- Naval Health Research Center: Febrile Respiratory Illness Surveillance Update

Subscription or Comments

If you wish to be added to the APH Weekly Update mailing list, removed from the mailing list, or if you have comments or questions about the update, please contact us. We welcome your comments. Please feel free to share this update with others who may be interested.
Hand Drying Posters

Drying hands with single-use, disposable paper towels is recommended in direct patient care, child care, and food service settings because they effectively remove transient microorganisms.

Jet air dryers are more sustainable and economical than paper towels. Use jet dryers in administration, warehousing, and maintenance areas of a medical treatment facility.

See the Technical Information Paper: Hand Drying at Medical Treatment Facilities for more information.

VETERINARY/FOOD SAFETY

- New bornavirus suspected in deaths of German squirrel breeders
- Study: Infection rates correlate with public health spending

WELLNESS

- Children’s lung health improves as air pollution is reduced, study says
- More children eat fruit in school, study shows
- Peanuts may lower risk of death from heart disease
- One twin exercises, the other doesn’t
- Putting health in context

USAFRICOM

- Madagascar: Disaster-prone Madagascar battles flooding and drought
- South Africa: Wildfire destroys 5 homes in Cape Town
- Tanzania: Strung out in Tanzania

USCENTCOM

- Afghanistan: Death toll from Afghanistan avalanche rises to nearly 200
- Middle East: What refugees really think of aid agencies
- Pakistan arrests parents for refusing polio vaccine
- Saudi Arabia: Middle East respiratory syndrome coronavirus (MERS-CoV)
- Yemen: The child soldiers of Yemen

USEUCOM

- Bosnia: Experts blame anti-vaccine lobby for Bosnia measles outbreak
- Europe: Chemical exposure linked to billions in health care costs
- Georgia: Increase in reported Crimean-Congo hemorrhagic fever cases — Country of Georgia, 2014

USNORTHCOM

- Mexico: Mexican mentally ill women ‘coerced into sterilisation’
- U.S.: Computer model shows potential effect of measles in U.S. cities
- U.S.: Dangerous bacteria mysteriously escapes from Louisiana monkey lab
- U.S.: FDA - Testosterone therapy may pose cardiovascular risks
- U.S.: Four measles outbreaks push US cases to 170
- U.S.: Heroin overdose deaths nearly quadruple in 13 years
- U.S.: Justices raise questions about federal-state balance, plaintiffs’ standing
- U.S.: Psychiatric drug overuse is cited by federal study
- U.S.: Suicide by suffocation increasing among U.S. youths
- U.S.: Untreated dental decay is falling among children

USPACOM

- India: India begins campaign to eliminate elephantiasis
- India: Study says pregnant women in India are gravely underweight
- Sri Lanka: Disaster warnings ignored in Sri Lanka
- Vietnam records more than 5,000 dengue cases in 1st two months
New Products:
Airborne and other Hazardous Environmental Exposures
The Department of Veterans Affairs has released a fact sheet on reporting airborne hazard exposures and a brochure with resources for Veterans exposed to certain other environmental hazards. They are available for download from the USAPHC Health Information Products e-Catalog.

USSOUTHCOM

- Brazil: Drought-stricken São Paulo battles dengue fever outbreak
- Chikungunya: From zero to 1.24 million

U.S. MILITARY

Estimates of incidence rates and proportions of TBI and PTSD diagnoses attributable to background risk, enhanced ascertainment, and active war zone service, Active Component, U.S. Armed Forces, 2003–2014

February 2015 - Traumatic brain injury (TBI) and post–traumatic stress disorder (PTSD) are "signature wounds" of the Afghanistan/Iraq wars; however, many TBI/PTSD cases are not war related. During the wars, diagnoses of TBI/PTSD among military members increased because risks of TBI/PTSD, and capabilities to detect cases, increased. This report summarizes TBI/PTSD diagnosis experiences of three cohorts of overseas deployers in relation to the natures of their exposures to active war service and enhanced case ascertainment efforts. The findings suggest that, during the war, the proportions of PTSD diagnoses attributable to war zone service decreased from approximately 80% to less than 50%, while the proportions attributable to enhanced case ascertainment increased from less than 10% to nearly 50%. The proportions of TBI diagnoses attributable to war zone service more than tripled from 2003–2005 (13.1%) through 2007–2009 (44.8%); the proportions attributable to enhanced ascertainment also markedly increased, but not until after 2007. By the end of the war, war zone service and enhanced ascertainment accounted for similar proportions of all PTSD and TBI diagnoses. Medical Surveillance Monthly Report

Mental health soon after war-zone concussions predicts disability

5 March - Evaluating military personnel with blast-related mild traumatic brain injuries, researchers have found that early symptoms of post-traumatic stress, such as anxiety, emotional numbness, flashbacks and irritability, are the strongest predictors of later disability. The results were surprising because mental health more closely correlated with disability than assessments typically made after concussions, such as tests of memory, thinking, balance, coordination and severity of headaches and dizziness, according to the study led by Washington University School of Medicine in St. Louis. ... Appearing March 4 in the journal Brain, the study also suggests that mild concussions have more severe long-term effects than previously thought, including difficulty returning to previous work, family and social activities. The results raise questions about how best to treat U.S. troops who suffer head injuries. Health Canal
Global

Billions 'have untreated tooth decay'

4 March - More than 2.4bn people have untreated tooth decay across the globe, a study in the Journal of Dental Research suggests. Experts say it is alarming it has been neglected to this level - despite known ways to both treat and prevent it. They warn that dental decay can lead to severe pain, infections, days off work and problems with childhood growth. And the analysis shows it is not just a childhood problem. Scientists say it should be seen as an adult disease too. ... Their global survey suggests 2.4bn people have untreated tooth decay in their permanent teeth and some 621m children have untreated decay in milk teeth. According to UK data, a third of the population had untreated dental decay in 2010. In Lithuania, one of the hardest-hit countries, the proportion was more than double this, at 68%. BBC News

Chikungunya vaccine looks promising in phase 1 trial

2 March - A chikungunya vaccine based on a weakened measles virus looked promising in a phase 1 trial, with most recipients developing neutralizing antibodies after one dose, according to a report published today in The Lancet Infectious Diseases. ... After one dose of the candidate vaccine, neutralizing antibodies were detected in 44% (4 of 9) recipients in the low-dose group, 92% (11 of 12) in the medium-dose group, and 90% (9 of 10) in the high-dose group. All of the recipients had neutralizing antibodies after the second dose of vaccine. ... On the safety side, there were seven severe adverse events in six volunteers, including headache, fever, and injection-site reactions. Two of the adverse events were unrelated to vaccination. CIDRAP

Cut music to 'an hour a day' – WHO

27 February - People should listen to music for no more than one hour a day to protect their hearing, the World Health Organization suggests. It says 1.1 billion teenagers and young adults are at risk of permanently damaging their hearing by listening to "too much, too loudly". It said audio players, concerts and bars were posing a "serious threat". WHO figures show 43 million people aged 12-35 have hearing loss and the prevalence is increasing. In that age group, the WHO said, half of people in rich and middle-income countries were exposed to unsafe sound levels from personal audio devices. Meanwhile 40% were exposed to damaging levels of sound from clubs and bars. The proportion of US teenagers with hearing loss went from 3.5% in 1994 to 5.3% in 2006. BBC News

Disasters have same human impact as tuberculosis: U.N.

4 March - Deaths, economic damage and other negative impacts from disasters have caused losses equivalent to 42 million life years annually since 1980, a measure that is comparable to the burden of tuberculosis worldwide, the United Nations said. More than 90 percent of the total "years" lost in disasters between 1980 and 2012 were in low and
middle-income countries, representing a serious setback to their development, the U.N. Office for Disaster Risk Reduction (UNISDR) said. ... In particular, risk from recurring, smaller disasters rather than huge one-off events drives poverty through destruction of homes, water supplies, infrastructure, and health and education facilities, the report said. Reuters

Hepatitis E vaccine has lasting effect

5 March - A vaccine against hepatitis E (HEV) provided protection against the virus for more than 4 years, researchers reported. In a randomized clinical trial, volunteers getting the HEV vaccine (Hecolin) were significantly less likely to acquire the virus than those getting a control hepatitis B vaccine. ... Over 54 months of follow-up, more than 85% of those who received all three doses of the vaccine maintained antibodies to HEV, Xia and colleagues reported in the New England Journal of Medicine. MedPage Today

New drugs pose serious health risks says UN body

3 March - The proliferation of new narcotics developed to circumvent existing drug laws poses a serious health problem, the United Nations drugs control body said on Tuesday. ... "They [are] often deliberately chemically engineered to circumvent existing international and domestic drug control measures," the INCB said in its latest report. China is "one of the main sources of supply of new psychoactive substances", said the report. The INCB also criticised the legalisation of cannabis in certain US states and in Uruguay, saying it went against international drug laws. ... There has been a 37 percent increase in the potency of THC in the drugs seized in the United States for example and a 75 percent increase in cannabis coming from outside the country. The INCB is also worried about increased opium production given the revival of poppy cultivation in Myanmar and a 17 percent jump in opium output levels in Afghanistan over the period of a year. Yahoo! News

Spider venom may hold chemical keys to new painkillers

4 March - Scientists who analyzed countless chemicals in spider venom say they have identified seven compounds that block a key step in the body's ability to pass pain signals to the brain. In research they said could one day lead to a new class of potent painkillers, the scientists focused on 206 species of spider and searched for molecules in the venom that block nerve activity, particular via so-called "Nav1.7 channels". Reuters

Study: HPV vaccination programs cut infections, anogenital warts

3 March - The long-term population-level effects of widespread female vaccination programs for human papillomavirus (HPV), begun in 2007, are promising, cutting infection rates by up to 68% and anogenital warts up to 61%, but continued surveillance for waning efficacy remains important, according to a meta-analysis published yesterday in The Lancet Infectious Diseases. CIDRAP News Scan (second item)
What kills more women than AIDS and breast cancer? Dirty water

5 March - Diseases spread through dirty water and poor sanitation are the fifth biggest killer of women worldwide, causing more deaths than AIDS, diabetes or breast cancer, researchers say. Nearly 800,000 women die every year because they lack access to safe toilets and clean water, said the development organization WaterAid, which analyzed data from the Seattle-based Institute of Health Metrics research center. “This completely unacceptable situation affects women and girls’ education, their health, their dignity and ultimately, in too many cases, results in an early and needless death,” WaterAid CEO Barbara Frost said in a statement. The only conditions more fatal for women than the lack of decent sanitation are heart disease, stroke, lower respiratory infections and chronic obstructive pulmonary disease, according to the report. Reuters

EBOLA VIRUS DISEASE

Ebola and Africa's medicine men

2 March - In Guinea, a land where witchcraft is sought for curing illness more than science, medicine men say the Ebola epidemic would have been over by now had they been properly included in the outbreak response. From broken bones, to impotence, to madness, these traditional healers say they have a potion, spell or touch for many ailments Western doctors can't treat. But there's only one cure for Ebola they say - knowledge. In the forest region of southeastern Guinea, where the virus was detected last March, disseminating information using modern technology has proved challenging. Karamoko Ibrahima Fofana, president of the association of traditional healers in the town of Macenta, said guérisseurs, as they are known, have unique access to remote villages. ... "We could have spread information on how to protect against Ebola or told people with symptoms to seek help in the treatment centres." Al Jazeera

Ebola levels on the rise in Guinea, Sierra Leone

4 March - Reflecting the tough challenge responders have in getting Ebola cases to zero, the number of confirmed infections increased in Guinea and Sierra Leone last week, with new cases popping up outside of known transmission chains and a number of Ebola detections found only after people died from the disease in their communities, the World Health Organization (WHO) said today in its weekly update on outbreak patterns. ... Overall, 132 newly confirmed cases were reported in the outbreak countries last week, compared with 99 reported the week before, the WHO said. The latest reports lift the region’s number of confirmed, probable, and suspected cases to 23,924, with the number of deaths rising to 9,792. CIDRAP
Ebola: Liberia's Johnson Sirleaf urges 'Marshall Plan'

3 March - Liberian President Ellen Johnson Sirleaf has called for a “Marshall Plan” for the Ebola-affected countries of West Africa. She was referring to the massive US aid programme for Europe launched after World War Two. Her comments came after Sierra Leone was immediately granted more than $80m (£52m) to help end the Ebola outbreak and recover from its effects. The IMF has pledged a $187m financial aid package for Sierra Leone. Nearly $5bn has been pledged internationally to the Ebola effort, but less than half of the help has materialised. About 600 delegates from around the world met in Brussels on Tuesday to talk about Ebola and long-term plans to fight the disease. BBC News

Ebola outbreak: Liberia releases last patient

5 March - Liberia has released its last Ebola patient after going a week without any new cases of the virus, according to the World Health Organization (WHO). Beatrice Yardolo, 58, left a Chinese-run treatment centre in the capital Monrovia after two weeks of treatment. ... WHO officials say there were 132 new cases in Guinea and Sierra Leone in the week to 1 March. It is the first time since May 2014 that Liberia has had no new cases of the virus, the officials added. ... But WHO officials have warned that populations are so mobile in the region that there could easily be fresh outbreaks in Liberia. BBC News

Nearly 30 countries 'highly vulnerable' to Ebola-style epidemic: charity

2 March - Almost 30 countries around the world are "highly vulnerable" to an Ebola-style epidemic, with Somalia, Chad, Nigeria, Afghanistan and Haiti most at risk, a major charity said on Tuesday. ... Justin Forsyth, chief executive of Save the Children, said a robust health system could have halted the rapid spread of Ebola through Guinea, Sierra Leone and Liberia over the past year and saved thousands of children’s lives. ... The WHO says governments should spend a minimum of $86 per capita on health, but Liberia spends $19.5, Sierra Leone spends $15.9 and Guinean spends $9 per capita, according to the Save the Children report. The report said it would cost $1.58 billion to strengthen the health systems of three worst affected West African nations to be able to offer a "minimum package" of essential health services recommended by the WHO. The international Ebola relief effort has cost almost three times as much. Reuters

Trial of Ebola drug ZMapp launches in Liberia, US

27 February - The National Institutes of Allergy and Infectious Diseases (NIAID) announced today that it and Liberia's government have launched the first clinical trial of ZMapp, a monoclonal antibody treatment that has been used on an emergency basis to treat some
Ebola patients, especially sick health workers who were evacuated from the outbreak region. In a statement today the NIAID detailed the design of the trial, which will take place at an Ebola treatment center in Monrovia and in the United States at up to four high-containment treatment facilities, including the National Institutes of Health Clinical Center in Bethesda. Md. The agency added, however, that steeply dropping Ebola activity in the outbreak region—along with fewer cases likely to be treated in the United States—will likely make it difficult to stick to the original trial design. CIDRAP

WHO to begin large-scale testing of Ebola vaccine in Guinea

5 March - The World Health Organization will start large-scale testing of an experimental Ebola vaccine in Guinea on Saturday to see how effective it might be in preventing future outbreaks of the deadly virus. ... The health agency’s vaccination strategy in Guinea aims to create a buffer zone around an Ebola case to prevent its further spread - an approach used to eradicate smallpox in the 1970s. Officials will vaccinate people who have already been exposed to Ebola cases and are at risk of developing the disease. The vaccine being tested - VSV-EBOV - was developed by Canada and is now licensed to Merck. A second vaccine - one developed by U.S. National Institutes of Health and GlaxoSmithKline - will be tested in a separate study as supplies become available.

INFLUENZA

Adults get flu 'about once every five years'

3 March - Adults catch real flu about once every five years, scientists calculate, based on a field study in China. Although many of us will feel ill more often than this, other flu-like infections are to usually blame, the international team says. The scientists tested blood samples from 151 volunteers aged between seven and 81, to gauge how often flu infections strike. ... Gathering this sort of lifespan data - which the researchers say has not really been done before - should help experts better understand who is at risk of infection, and how often, as well as how far the disease spreads through communities. The study, in the journal PLoS Biology, looked at nine main strains of flu known to have been circulating around the globe between 1968 and 2009. BBC News

Armed Forces Health Surveillance Center: DoD Seasonal Influenza Surveillance Summary

For Week 7:
- Flu activity seems to have peaked in NORTHCOM. The number of states with high flu
activity is decreasing.

- In EUCOM, high influenza activity was seen in Italy and Germany. A/H3N2 viruses continue to predominate.
- In PACOM, influenza activity was high in Hawaii and South Korea.
- Influenza activity was low in CENTCOM, AFRICOM and SOUTHCOM. AFHSC DoD Seasonal Influenza Surveillance Summary

**CDC: Weekly Influenza Surveillance Report**

During week 7 (February 15-21, 2015), influenza activity continued to decrease, but remained elevated in the United States.

- **Viral Surveillance:** Of 18,505 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 7, 2,236 (12.1%) were positive for influenza.
- **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was above the epidemic threshold.
- **Influenza-associated Pediatric Deaths:** Six influenza-associated pediatric deaths were reported.
- **Influenza-associated Hospitalizations:** A cumulative rate for the season of 51.7 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 3.0%, above the national baseline of 2.0%. All 10 regions reported ILI at or above region-specific baseline levels. FluView

**Evidence of H5N1 antibodies low in poultry workers: study**

27 February - The level of antibodies to H5N1 avian flu in poultry workers in Bangladesh is low, according to a seroprevalence study today in *Emerging Infectious Diseases*. Researchers from the CDC and Bangladesh analyzed blood samples from 404 Bangladeshi workers in live-poultry markets in which both hand washing after poultry handling and use of personal protective equipment were low. Nine of the workers (2%) were seropositive at baseline. Of the 284 workers who completed the study and were seronegative at baseline, 6 (2%) seroconverted, for a rate of seven cases per 100 poultry worker–years. The team also determined that workers who frequently fed poultry, cleaned feces from pens, cleaned food or water containers, and did not wash hands after touching sick poultry had a 7.6 times higher risk of infection compared with workers who infrequently engaged in these behaviors. CIDRAP Flu Scan (fourth item)

**FDA panel endorses WHO picks for 2015-16 flu vaccine**

4 March - As expected, a Food and Drug Administration (FDA) advisory committee today endorsed the World Health Organization’s (WHO’s) choice of influenza strains for the 2015-
16 seasonal flu vaccine, but not without considerable discussion. In addition, the committee heard preliminary estimates suggesting that this year's flu vaccine may have been considerably more effective in the dependents of US military personnel than it has been in the US population as a whole. ... On Feb 26 the WHO recommended changing two of the three strains in trivalent flu vaccines for the next Northern Hemisphere flu season: H3N2 and influenza B. The chosen strains—an A/Switzerland-like virus for H3N2, a B/Phuket-like strain for type B, and an A/California-like strain for H1N1—are the same ones chosen for this year’s Southern Hemisphere flu season. CIDRAP

Flu News Europe

Week 8/2015 (16-22 February 2015)

- Increased influenza activity continues, particularly in western and central countries of the WHO European Region.
- Nine countries reported increasing rates of influenza-like illness (ILI) and/or acute respiratory infections (ARI). Thirty-five countries experienced usual and higher than usual levels of influenza activity; in the previous season most European countries continued to experience no influenza activity or activity at baseline level.
- The number and percentage of influenza virus detections in sentinel specimens showed a slight reduction in what might be described as a high plateau phase of the influenza season.
- Of 2535 sentinel specimens, 49% tested positive for influenza virus with positive detections in 34 countries.
- Influenza A(H1N1)pdm09, A(H3N2) and type B viruses continued to circulate in the Region, with A(H3N2) predominating.
- The circulation of respiratory syncytial virus (RSV) has decreased to low levels across the European Region.
- The vaccine recommendation for the northern hemisphere 2015-2016 season was made on 26 February 2015: it recommended that vaccines for use in the season (northern hemisphere) contain the following:
  - an A/California/7/2009 (H1N1)pdm09-like virus;
  - an A/Switzerland/9715293/2013 (H3N2)-like virus;
  - a B/Phuket/3073/2013-like virus
- It is recommended that quadrivalent vaccines containing two influenza B viruses contain the above three viruses and a B/Brisbane/60/2008-like virus. Flu News Europe

H7N9 hospitalizes another in China

4 March - Health officials in eastern China’s Anhui province today reported another H7N9 avian influenza case, in a 68-year-old man from Chizhou who is hospitalized with severe illness, according to a health department report translated and posted by FluTrackers. ... The man’s illness edges the global H7N9 total to 623, according to a case list maintained by FluTrackers. It’s not clear exactly how many deaths have been reported, but the World Health Organization said in a Feb 26 statement on flu vaccine strain selection that it has received reports of 227 deaths from the virus. CIDRAP Avian Flu Scan (second item)
Naval Health Research Center: Febrile Respiratory Illness Surveillance Update

For the week ending 12 January 2014:

Influenza

- Three cases of NHRC laboratory-confirmed influenza (A/H3) among US military basic trainees.
- Decreasing influenza A/H3 activity at US military recruit sites.
- A/H3 and B cases occurring among DoD dependents and civilians near US-Mexico border. Low proportion of cases had been vaccinated prior to illness.

FRI surveillance at all eight U.S. military basic training centers indicated FRI rates were moderately elevated at Lackland AFB. NHRC Febrile Respiratory Illness Surveillance Update

Two H5N1 deaths reported in Egypt

4 March - A 16-year-old girl in Sharqia governorate and a 33-year-old woman in Cairo died yesterday in Egypt from H5N1 avian flu, Ahram Online reported yesterday. A case list compiled and monitored by the online news message board FluTrackers includes 78 H5N1 cases in 2015, not including the case in the 16-year-old girl. FluTrackers says 21 of the cases have proved fatal. The Ahram Online story also says that a 2-year-old girl in Beheira governorate has recovered from the disease, according to a health ministry statement. The ministry also said that 11 patients in the country are currently undergoing treatment for H5N1 infections. CIDRAP Avian Flu Scan (first item)

WHO warns about influenza co-circulation, bird outbreaks

27 February - The World Health Organization (WHO) today sounded an alarm about a number of signals that suggest that influenza strains, especially avian ones, are co-circulating and swapping genetic material at an unprecedented level. In a statement today, the WHO said the world needs to be concerned about the diversity and spread of avian flu viruses in wild and domestic birds, factors that could give rise to more novel strains and threaten livelihoods, the food supply, and even human health. ... [Several] countries in the past 3 days have reported more highly pathogenic avian influenza (HPAI) in wild birds and poultry to the World Organization for Animal Health (OIE). They include the United States, Taiwan, Hungary, Myanmar, and Vietnam, and the strains include H5N8, H5N1, H5N2, and H5N3. CIDRAP

top of page...
VETERINARY/FOOD SAFETY

New bornavirus suspected in deaths of German squirrel breeders

27 February - Researchers say a newly discovered bornavirus may have been the cause of fatal encephalitis in three German men who bred exotic squirrels, the European Centre for Disease Prevention and Control (ECDC) reported today. The three men, between the ages of 62 and 72, bred variegated squirrels, which are native to Central America and are sometimes used as pets, the ECDC said in a rapid risk assessment. The men, who knew each other but did not live close together, all died recently after illnesses that included confusion, psychomotor impairment, and ocular paresis (partial paralysis). Veterinary investigators did a genetic analysis of tissue from a squirrel that belonged to one of the men and discovered sequences of a new type of bornavirus, a genus that can infect many species of mammals and birds, the ECDC reported. Analysis of brain tissue from the three deceased men subsequently revealed the same virus, which "is clearly different from all currently known bornaviruses." CIDRAP News Scan (second item)

Study: Infection rates correlate with public health spending

4 March - Local government spending on food safety and sanitation programs may significantly influence the number of illnesses occurring in the surrounding areas, according to a new study led by researchers from the University of Washington School of Nursing. The study examined 11 years of data collected from county health departments in the states of Washington and New York, finding that infection rates from two harmful pathogens, Salmonella and Cryptosporidium, correlated with spending on public health programs. In Washington state, cuts to health spending were found to correlate with increasing Salmonella infections, said Betty Bekemeier, Ph.D., associate professor of nursing at the UW and lead author of the study. In New York, the same trend was observed with Cryptosporidium infections, which are often associated with sanitation concerns. Food Safety News

WELLNESS

Children’s lung health improves as air pollution is reduced, study says

4 March - For the first time, researchers have shown that reducing air pollution leads to improved respiratory function in children ages 11 to 15, a critical period of lung development. Scientists have long known that air pollution is linked to smaller lung capacity
and compromised breathing in children. But it had not been clear whether, and to what extent, a reduction in air pollution over the years might prevent these problems. ... The new study, conducted in Southern California and published on Wednesday in The New England Journal of Medicine, provides evidence that better air quality, a result of stricter regulation, improved health among children, experts said. ... Over the four years the children were tested, the growth in their lung capacity had been about 10 percent greater than that of the 15-year-olds measured in 1998. The positive effects were observed in boys and girls, and regardless of race and ethnicity. New York Times

More children eat fruit in school, study shows

4 March - Changes made to government-subsidized meals by the Obama administration to get schoolchildren to eat more fruits are having their intended effect, according to a study released on Wednesday. The study ... found that from the time the changes went into effect in 2012 through last year, the percentage of students choosing fruit on a cafeteria line increased to 66 percent from 54 percent. Perhaps more important, the study found that children were throwing away less food now than they were before the new guidelines were put in place. Students ate 84 percent of their entrees, not including fruit, up from 71 percent before the rules were in place, thus decreasing the amount of food waste, the researchers found. New York Times

Peanuts may lower risk of death from heart disease

2 March - Peanuts may reduce the risk of death from heart disease, a large study found, suggesting that the health benefits of this low-cost nut may be similar to pricier options like almonds and pistachios. While previous studies have linked nut consumption to a lower risk of heart disease, diabetes, and high blood pressure, the earlier research focused mostly on wealthier white people in the U.S. and Europe. This study, with a more ethnically and economically diverse population in the U.S. and China, suggests that nuts can benefit people from a wide variety of backgrounds. ... In the Chinese group, half were tracked for six to 12 years. For the Americans, the risk of dying from any cause was 21 percent lower in the group that ate the most peanuts, compared to the group that ate the least. For the Chinese, the risk reduction was 17 percent. Reuters

One twin exercises, the other doesn’t

4 March - Some past studies had found that older identical twins whose workout habits had diverged over the years tended to age differently, with greater risks of poor health and early death among the sedentary twin. But no studies had looked at young twins and the impacts of different exercise routines on their health. ... The researchers were looking for young adult identical twins in their early- to mid-20s whose exercise habits had substantially diverged after they had left their childhood homes. ... The dissimilarities in their exercise routines had mostly begun within the past three years, according to their questionnaires. ... The
sedentary twins had lower endurance capacities, higher body fat percentages, and signs of insulin resistance, signaling the onset of metabolic problems. ... The twins’ brains also were unlike. The active twins had significantly more grey matter than the sedentary twins, especially in areas of the brain involved in motor control and coordination. New York Times

Putting health in context

4 March - On his office wall, Dwayne Proctor has a map of the Metro system in his hometown of Washington, D.C. His version of the map shows life expectancy around each subway stop — where you get off as a measure of how long you’ll live. “If you live in the inner loop of the Beltway, then chances are your life expectancy is lower than if you live in one of the outer loops going out toward Maryland or Virginia,” said Proctor, a panelist at a March 3 forum at the Harvard T.H. Chan School of Public Health. ... The rankings diverged among ethnic groups. African-Americans (56 percent) were more likely than whites (41 percent) to perceive lack of access to high-quality medical care as an extremely important cause of individual health problems. African-Americans also were likelier than whites to cite income (45 percent to 23 percent) and insufficient education (41 percent to 26 percent) as potential factors in ill health. Hispanics were more likely than non-Hispanic whites (46 percent to 31 percent) to say bad working conditions were extremely important. Harvard Gazette

top of page...

USAFRICOM

Madagascar: Disaster-prone Madagascar battles flooding and drought

5 March - Authorities in Madagascar are struggling to respond to increasingly severe flooding in the central highlands region of the country that includes the capital, Antananarivo, in addition to a prolonged drought in the south. The latest round of flooding, which started when three rivers that cross Antananarivo – the Sisaony, Ikopa and Imamba – burst their banks during a storm on 24 February, has left 19 people dead and an estimated 36,000 displaced, according to the National Office for the Management of Risks and Catastrophes (BNRGC in French). A further 40,000 people were displaced in 13 other districts. On Wednesday, BNRGC issued a new alert warning that a low-pressure system just off the island’s west coast was expected to bring more torrential rainfall to the central highlands region. Several neighbourhoods in Antananarivo remain braced for further flooding and landslides over the coming days. IRIN

South Africa: Wildfire destroys 5 homes in Cape Town

2 March - South African firefighters say they are battling to control a wildfire that has burned down five homes in Cape Town’s southern peninsula. Spokeswoman Liezl Moodie
said Monday that nearly 150 firefighters, along with park volunteers, have combated the blaze since early Monday. She said helicopters are also water bombing the area around Table Mountain National Park. Moodie said no one has been killed and no serious injuries recorded. Earlier, the South African Press Association reported that about 50 people were treated for smoke inhalation. She said in addition to the five homes destroyed, residents near the fire were asked to evacuate their homes, including three retirement villages. The press association said the fire started Sunday and was brought under control but then a bigger fire started after 2 a.m. Monday. ABC News

Tanzania: Strung out in Tanzania

3 March - Every morning, hundreds of Tanzanians make their daily sojourn to a breezy open-air methadone clinic at Muhimbili National Hospital. ... One by one, the patients are called to a window, where a nurse behind a metal grate offers a plastic cup filled with liquid methadone. ... Muhimbili’s methadone clinic is the first of its kind in mainland sub-Saharan Africa. Few governments, donors or nonprofits in Africa work with heroin users. Médecins du Monde (MDM), an international nonprofit that serves heroin users in Tanzania, estimates that fewer than 1 percent of drug users on the continent have access to support services, let alone treatment plans like methadone. Tanzania is a striking exception. In 2009 the national government publicly declared that its drug users needed evidence-based treatment options. With aid from the United States and Canada, Tanzania’s Ministry of Health approved a comprehensive plan to help prevent and treat heroin addiction. Al Jazeera

top of page...

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Afghanistan: Death toll from Afghanistan avalanche rises to nearly 200

1 March - An Afghan provincial official says that the death toll from a massive avalanche in a mountainous valley near the capital, Kabul, rose to 198 as bulldozers and other machinery began clearing roads and rescue teams reached remote villages that have been cut off for almost a week. Najimudin Khan, deputy provincial police chief of Panjshir province, 60 miles from Kabul, said Sunday that as rescue workers dig through the snow, they are uncovering more bodies, including women and children. Large parts of Afghanistan have been covered in snow as a major storm interrupted an otherwise mild and dry winter. The heavy snowstorms, which began early Tuesday, hampered rescue efforts. Snowfall from the storm was nearly three feet deep in
places, and fallen trees blocked roads in the Panjshir Valley. Nationwide, the death toll from avalanches and flooding rose to at least 247 people, the Afghanistan National Disaster Management Authority says. At least four army helicopters are dropping hot food to cut-off villages, said Khan, the first food for many since the disaster last week. *Al Jazeera America*

**Middle East: What refugees really think of aid agencies**

5 March - Aid agencies are partial, unaccountable and potentially corrupt, and they fail to meet refugees’ most pressing needs. These are just some of the criticisms emerging from a series of new focus groups with refugees and others who receive aid across the Middle East. Concerns included a lack of consultation about people’s needs, a failure to protect the most vulnerable, confusion over which agency was responsible for what, duplicated aid, as well as instances where help was perceived to be withheld or prioritised due to political or religious affiliation. *IRIN*

**Pakistan arrests parents for refusing polio vaccine**

2 March - Pakistani authorities have conducted their first-ever mass arrest of parents for refusing to allow their children to be vaccinated against polio. Authorities in Peshawar, in the north-west of the country, detained 471 people and charged them with "endangering public security". The local government says they will only be freed once they have pledged in writing to vaccinate their children. The Taliban prohibit vaccinations and have attacked health workers. The Pakistani government has declared "war" on the disease. ... Pakistan accounts for the vast majority of polio cases globally and is one of only three countries where it remains endemic. In 2014, polio cases in the country reached a 14 year high of 306. Nine new cases have been detected so far this year. *BBC News*

**Saudi Arabia: Middle East respiratory syndrome coronavirus (MERS-CoV)**

26 February - Between 20 and 22 February 2015, the National IHR Focal Point for the Kingdom of Saudi Arabia notified WHO of 4 additional cases of Middle East respiratory syndrome coronavirus (MERS-CoV) infection, including 1 death. ... Globally, WHO has been notified of 1030 laboratory-confirmed cases of infection with MERS-CoV, including at least 381 related deaths. *WHO*

**Yemen: The child soldiers of Yemen**

4 March - ... Last September, the heavily fortified Yemeni capital fell to Houthi fighters, and in just six months the rebels dissolved the assembly and took over the government. ... Many of the foot soldiers of this conflict, guarding turf along the battle lines, are children. Young boys between 14 and 16 are often seen with rifles and handguns strapped to their sides, protecting the recently seized streets of Sanaa. These young boys are usually recruited from within the locality, lured by money and a sense of purpose in fighting for the community. Yemeni activists say they earn 500 Yemeni rials ($2) a day, along with a hot meal, in return for a day in the sun and vigils at night. ... Yemen is the poorest country in the Middle East,
with 45 percent of the population going to bed hungry every day. Poverty, lack of education, family retribution and a deeply entrenched sense of masculinity and filial duty, activists say, all contribute to the militarisation of young children. *Al Jazeer*a

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**Bosnia: Experts blame anti-vaccine lobby for Bosnia measles outbreak**

2 March - Medical experts warned Friday the anti-vaccination lobby is growing in Bosnia, using scientifically discredited arguments to stoke parental fears in the worst-affected country in Europe’s measles outbreak. This trend — combined with a generation that could not be immunized because of lack of vaccines during Bosnia’s 1992-95 war — has led to 5,340 measles cases in Bosnia, according to the World Health Organization. ... Bosnia’s immunization rate has fallen to just 87 percent, chief epidemiologist Jelena Ravlija said, below the 95 percent rate needed to prevent outbreaks. *Tyler Morning Telegraph*

**Europe: Chemical exposure linked to billions in health care costs**

5 March - Researchers conclude they are 99 percent certain that hormone-altering chemicals are linked to attention problems, diabetes, other health problems. Exposure to hormone-disrupting chemicals is likely leading to an increased risk of serious health problems costing at least $175 billion (U.S.) per year in Europe alone, according to a study published Thursday. Chemicals that can mimic or block estrogen or other hormones are commonly found in thousands of products around the world, including plastics, pesticides, furniture, and cosmetics. The new research estimated health care costs in Europe, where policymakers are debating whether to enact the world’s first regulations targeting endocrine disruptors. The European Union’s controversial strategy, if approved, would have a profound effect on industries and consumer products worldwide. *National Geographic*

**Georgia: Increase in reported Crimean-Congo hemorrhagic fever cases — Country of Georgia, 2014**

6 March - During January–September 2014, Georgia’s National Centers for Disease Control and Public Health (NCDC) detected 22 cases of Crimean-Congo hemorrhagic fever (CCHF) in the country. CCHF is caused by infection with a tickborne virus of the *Bunyaviridae* family. Transmission occurs from the bite of an infected tick or from crushing an infected tick with bare skin. Secondary transmission can result from contact with blood or tissues of infected animals and humans. ... Among 22 patients, the mean age was 45 years (range = 4–77
years); 13 (59%) were male. Most (91%) cases occurred during May 1–August 31; 18 (82%) occurred in rural villages. Preceding their illness, 14 (64%) patients reported a tick bite or removal, and three (14%) reported exposure to animal blood. The mean incubation period was 4 days (range = 1–17 days). ... The case-fatality rate was 14%. ... [The] 2014 increase in cases might be an artifact of improved surveillance system sensitivity, rather than an actual increase in incidence. *Morbidity and Mortality Weekly Report*

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**Mexico: Mexican mentally ill women 'coerced into sterilisation'**

27 February - Together with the advocacy group Disability Rights International, Colectivo Chucan has gathered testimonies from 51 women for a new report on the reproductive rights of women with psychosocial disabilities. Their findings are disturbing: 42 percent of the women surveyed said they had been forced or coerced into sterilisation by doctors or family members. A further 43 percent of women who visited a gynaecologist had suffered physical, psychological or sexual abuse. ... The various nurses and doctors I talked to said that sterilisation was advised on a case-by-case basis, but all admitted that mentally ill women in Mexico were often pressured into the procedure. ... Sexual abuse and sterilisation are likely to be far more widespread within closed-door psychiatric facilities, where staff are appointed legal guardians of abandoned women and have near total control over them, says Disability Rights International. *Al Jazeera*

**U.S.: Computer model shows potential effect of measles in U.S. cities**

3 March - Researchers at the University of Pittsburgh Graduate School of Public Health have developed a computer model that analyzes the effect of potential measles outbreaks in cities throughout the country. According to *Health Data Management*, the Framework for Reconstructing Epidemiological Dynamics, or FRED, model is a no-cost resource that allows users to see how a measles outbreak would affect their community if the population has high or low rates of vaccinations for the virus. ... Specifically, Donald Burke, dean of the University of Pittsburgh Graduate School of Public Health, said, "FRED users can see on a map of any major metropolitan area in the U.S. how one case of measles can turn into a major outbreak or be quickly quashed, all depending on the vaccination rates of a community." *iHealthBeat*
U.S.: Dangerous bacteria mysteriously escapes from Louisiana monkey lab

2 March - How a potentially deadly strain of bacteria escaped from a primate research lab infecting four monkeys is a mystery, government officials said, but they added the incident poses no threat to the public. The bacterium in question, *Burkholderia pseudomallei*, is widespread throughout Southeast Asia and northern Australia, infecting humans and animals via contaminated soil and water entering the blood stream through cuts in the skin, according to the Centers for Disease Control and Prevention. The high-security laboratory at the Tulane National Primate Research Center in Louisiana, which is studying the bacteria, reported that at least five rhesus macaques not used in studies were infected with the bug, possibly as early as November of last year, according to spokesman Michael Strecker. *ABC News*

U.S.: Testosterone therapy may pose cardiovascular risks

4 March - Men who use testosterone products to treat low testosterone may be at increased risk for myocardial infarction, stroke, and death, the FDA cautioned on Tuesday. The agency is requiring a label change to warn of these risks and to clarify the approved uses for such products. ... The FDA emphasized that testosterone products are approved only for treating low testosterone caused by medical conditions such as disorders of the brain, pituitary gland, and testicles. Benefits for age-related low testosterone haven’t been demonstrated. *NEJM Journal Watch*

U.S.: Four measles outbreaks push US cases to 170

2 March - Sixteen more measles cases were reported to the US Centers for Disease Control and Prevention (CDC) last week, lifting the national total to 170 cases so far this year, about three fourths of them part of a large ongoing multistate outbreak linked to Disneyland in California. Though 17 states and the District of Columbia have reported measles cases this year, 89% of the cases are from four outbreaks, with California and its link to the Disney outbreak having the most cases. Three other states—Illinois, Nevada, and Washington—have outbreaks under way that aren’t linked to the Disney outbreak. Seven more infections have been linked to the Disney outbreak, lifting that total to 140, the CDC said. However, 15 of those cases were reported from late December when the outbreak first began and aren’t included in the 170 total cases for this year. *CIDRAP*

U.S.: Heroin overdose deaths nearly quadruple in 13 years

4 March - In a worsening trend, deaths from heroin overdose in the United States increased even more dramatically in recent years than they did over the previous decade, according to a new report. The results show the rate of death from heroin overdose nearly quadrupled,
from 0.7 deaths per 100,000 people in the year 2000, to 2.7 deaths per 100,000 people in 2013. But the steepest rise occurred between 2010 and 2013, when the rate of death from heroin overdose increased 37 percent, compared with rising just 6 percent over the decade before, according to the report from the Centers for Disease Control and Prevention (CDC).

The researchers also reported changes in the age group and ethnic group with the highest rates of death from heroin overdoses. In 2000, the group with the highest rate of heroin overdose deaths was black adults ages 45 to 64, with a rate of 2 deaths per 100,000 yearly. In contrast, in 2013, the group with the highest death rate was white adults ages 18 to 44, with a rate of 7 deaths per 100,000, according to the report. Scientific American

U.S.: Justices raise questions about federal-state balance, plaintiffs’ standing

4 March - Oral arguments in King v. Burwell, the challenge to the health law’s insurance subsidies, were completed this morning. ... The justices in King v. Burwell are considering a legal challenge to the tax credits in the 2010 law that is the defining domestic achievement for President Barack Obama. The court is deciding whether language in the law allows the credits to go to lower- and middle-income individuals across the country or is limited to people in states currently operating health-insurance exchanges. The distinction is important because only 13 states and the District of Columbia currently operate an exchange, while more than 30 states are relying on the federal government’s HealthCare.gov system. Kaiser Health News

U.S.: Psychiatric drug overuse is cited by federal study

1 March - Federal investigators say they have found evidence of widespread overuse of psychiatric drugs by older Americans with Alzheimer’s disease, and are recommending that Medicare officials take immediate action to reduce unnecessary prescriptions. The findings will be released Monday by the Government Accountability Office, an arm of Congress, and come as the Obama administration has already been working with nursing homes to reduce the inappropriate use of antipsychotic medications like Abilify, Risperdal, Zyprexa and clozapine. But in the study, investigators said officials also needed to focus on overuse of such drugs by people with dementia who live at home or in assisted living facilities. New York Times

U.S.: Suicide by suffocation increasing among U.S. youths

5 March - Young Americans are increasingly using suffocation and hanging to commit suicide, according to government data released on Thursday. Deaths by those means rose every year from 1994 to 2012 among females and males aged 10 to 24 year olds, for reasons that remain unclear, according to a report by the U.S. Centers for Disease Control and Prevention (CDC). Unlike suicide attempts that involve poisoning, suffocation and hanging are much more likely to result in death, the researchers noted. ... By 2012, the rate of suicide by suffocation and hanging had reached 4.5 deaths per 100,000 among young
men, up from 3 per 100,000 in 1994, researchers at the U.S. Centers for Disease Control and Prevention (CDC) reported in the agency’s Morbidity and Mortality Weekly Report. The rate among young women more than tripled, to 1.7 per 100,000 in 2012 from 0.5 in 1994.

Reuters

U.S.: Untreated dental decay is falling among children

5 March - Cavities in preschoolers appear to be declining and fewer young children have untreated dental decay, federal health authorities reported on Thursday. It is the first drop in dental decay for this age group since 2007, when a report from the Centers for Disease Control and Prevention cited an alarming rise in decayed baby teeth. Dr. Bruce Dye, the lead author of the past two C.D.C. reports on oral health, said that “only 10 percent of preschooler kids have untreated tooth decay. “This is the lowest percentage we have seen in the past 25 years,” he added. Though the results cover just two years of data and may not be “statistically significant,” they suggest some promising broad-stroke trends, Dr. Dye said. ... The agency found that 23 percent of children ages 2 to 5 had cavities from 2011 to 2012, down from 28 percent from 1999 to 2004. New York Times

top of page...

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India: India begins campaign to eliminate elephantiasis

2 March- India recently began one of the biggest drug-distribution campaigns in its history in an effort to eliminate “elephant’s foot disease,” also known as elephantiasis or lymphatic filariasis. The Indian Ministry of Health and Family Welfare hopes to hand out free pills once a year to 400 million Indians at risk of the disease, which is caused by microscopic worms spread by mosquitoes. ... Nearly 1.3 million Indians have the disease, according to figures released by the ministry last week. New York Times

India: Study says pregnant women in India are gravely underweight

2 March - ... [India is] a country with about one-sixth of the world’s population but one-third of all newborn deaths. ... The poor health of children in India, even after decades of robust economic growth, is one of the world’s most perplexing public health issues. ... A child raised in India is far more likely to be malnourished than one from the Democratic Republic of Congo, Zimbabwe or Somalia, the world’s poorest countries. Poor sanitation and a growing tide of drug-resistant infections also affect nutrition. But an important factor is the relatively poor health of young Indian women. More than 90 percent of adolescent Indian girls are anemic, a crucial measure of poor nutrition. And while researchers have long known that Indian mothers tend to be less healthy than their African counterparts, a new
Sri Lanka: Disaster warnings ignored in Sri Lanka

2 March - Lives and livelihoods are being lost unnecessarily in Sri Lanka because local communities are ignoring disaster warnings, according to officials. More than 70 people died in the last two months of 2014 as a result of floods and landslides while the earlier part of the year was marked by a prolonged drought, severely impacting the rice harvest. ... The rains finally arrived in late October, but rather than providing respite, they provoked further tragedy. Three days of incessant downpours triggered a landslide in the village of Meeriyabedda in Central Badulla District. More than a dozen houses were buried. Eleven bodies were recovered from the mud and debris – a further 25 were officially listed as missing. One day previously, the village had been issued with a specific warning that landslides were possible, but no action was taken. People chose to stay put. IRIN

Vietnam records more than 5,000 dengue cases in 1st two months

3 March - Vietnam health officials have reported a surge in dengue fever in southern Vietnam so far in 2015 where an increase of 27 percent in cases have been seen as compared the same period in 2014. Statistics from the Ministry of Health showed that the country has recorded more than 5,200 infections so far this year, including 3,640 infections in February, mostly in the south. ... Three dengue-related fatalities, from Dong Nai and Long An near Ho Chi Minh City, have been recorded in the outbreak. Outbreak News Today

Brazil: Drought-stricken São Paulo battles dengue fever outbreak

3 March - Inhabitants of this megacity, suffering through the worst drought in decades, have unwittingly contributed to an outbreak of dengue fever by storing scarce water in open containers. The tropical mosquito-borne virus ... has killed at least 17 people in São Paulo state in the first six weeks of 2015. That's up from just three deaths through mid-February of 2014, according to national health officials. Suspected cases have surged tenfold to 51,849 over the same period. ... While drought-ravaged São Paulo has yet to declare official water rationing, the main water utility has reduced pressure in the pipes to force conservation, a strategy that has cut off running water to millions of customers for hours, even days at a stretch. ... 563 cases of the disease have been confirmed through mid-
February, a 163% increase from the same period a year ago. Wall Street Journal

Chikungunya: From zero to 1.24 million

3 March - In slightly more than a year, the Americas have seen more than 1.24 million cases of chikungunya virus. ... The tropical virus was rare in North, Central, and South America until December 2013, when investigation of suspected dengue virus in the Caribbean island of St. Martin turned up 26 cases of chikungunya, without any sign they had been imported from elsewhere. As of the end of February 2015, that handful of cases had exploded to 1,247,400 suspected and confirmed cases, affecting almost every country in the hemisphere, according to the Pan-American Health Organization. ... Online in *Lancet Infectious Diseases* this week, investigators are reporting that a recombinant candidate based on a measles vaccine had promising immunogenicity in a phase I dose-finding trial. MedPage Today