24 February 2017

Army Public Health Weekly Update

Army Public Health Center

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

USAFRICOM | USCENTCOM | USEUCOM | USNORTHCOM | USPACOM | USSOUTHCOM

Contents

U.S. MILITARY

- BARDA and Project Bioshield Progress Report details core national security role
- GAO report: DOD, HHS, DHS should use existing mechanisms to better coordinate pandemic outbreak response capabilities
- Rates of *Chlamydia trachomatis* infections across the deployment cycle, active component, U.S. Armed Forces, 2008–2015
- Social media can help find and help individuals at risk of suicide

GLOBAL

- Australia’s mosquito-borne Ross River virus could become global epidemic, researchers say
- Bad hospital design is making us sicker
- Brain connectivity changes linked to mild TBI: Study
- Ebola vaccine found highly protective
- Ebola virus RNA in semen from an HIV-positive survivor of Ebola
- How soap, chairs and clothing could stop mosquito bites -- and diseases
- Microsoft helps build a mosquito trap with brains
- New test may quickly identify mild traumatic brain injury with underlying brain damage
- NIH begins study of vaccine to protect against mosquito-borne diseases
- Snail venom compound ‘offers chronic pain therapy’
- Study: Contract tracing, spraying limit dengue
- TB immune response in children may predict later disease
- Three deadly viruses that could spawn the next pandemic
- ZIKA VIRUS
- New studies highlight Zika’s spread, microcephaly
- Zika may cause miscarriages, thin brain tissue in babies carried to term

INFLUENZA

- APHC: U.S. Army Influenza Activity Report
- China: China confirms high-path H7N9 in market poultry
- China: Human infection with avian influenza A(H7N9) virus
- China: Study of Chinese poultry workers finds high rate of H5, H9 exposure
- Europe: Early 2016/17 vaccine effectiveness estimates against influenza A(H3N2)
- ECDC: Flu News Europe

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.

Approved for public release, distribution unlimited.

The Army Public Health Update is a collection of articles taken verbatim from public sources to offer awareness of current health issues and the media coverage given to them. The articles do not necessarily represent US Army Medical Department opinions, views, policy, or guidance, and should not be construed or interpreted as being endorsed by the US Army Medical Command.
MIT, GlaxoSmithKline launch flu tracking app Flumoji
NHRC: Febrile Respiratory Illness Surveillance Update
USAFSAM & DHA: DoD Global, Laboratory-Based, Influenza Surveillance Program
WHO: Influenza Update

VETERINARY/FOOD SAFETY

- Another 130 cheese products recalled for Listeria; FDA gagged
- Collapse of Aztec society linked to catastrophic Salmonella outbreak
- Fearing “feral hog apocalypse,” Texas approves drastic measures
- Research finds Salmonella food poisoning could damage DNA
- Researchers zap noro on fresh lettuce with blast of ionized gas

WELLNESS

- After CVS stopped cigarette sales, smokers stopped buying elsewhere, too
- Brain scans ‘may spot teen drug problems’
- Legalizing same-sex marriage was associated with fewer youth suicide attempts, new study finds
- Self-guided cognitive behavioral therapy may help depression
- Testosterone replacement for men ‘trade-off with risks’
- XtraHRD Natural Male Enhancement Capsules recalled

USAFRICOM

- Africa: The nexus between forest fragmentation in Africa and Ebola virus disease outbreaks
- Africa: UN demands action as famine looms in three countries
- Cameroon: Bushmeat trade tests Cameroon’s Ebola prevention
- São Tomé and Principe: Mystery outbreak - suspected Buruli ulcer
- South Sudan: UN, government declare famine in parts of South Sudan
- Togo: Meningococcal disease

USCENTCOM

- Saudi Arabia: Officials confirm 6 new MERS cases, 1 death in Saudi Arabia

USEUCOM

- Europe: ‘Alarming’ superbugs a risk to people, animals and food, EU warns
- United Kingdom: A push for diesel leaves London gasping amid record pollution
- United Kingdom: No prescription required - study looks at online pharmacies, antibiotic use

USNORTHCOM

- Canada: Mumps outbreak in Toronto appears linked to downtown bars - health officials
- Canada/U.S.: Seoul virus
- U.S.: NFPA issues fire hose safety bulletin
- U.S.: Perspectives from inside the climate change-human health conference that rose from the dead
- U.S.: Trump’s travel ban causing angst for America’s health system
- U.S.: U.S. life expectancy will soon be on par with Mexico’s and the Czech Republic’s

USPACOM

- Cambodia: H.I.V. stalks prostitutes and their children
- China: China blacklists carfentanil, closing a deadly loophole
- Sri Lanka: Sri Lanka’s antivenom leap forward
USSOUTHCOM

- Brazil: Yellow fever update - 33% of confirmed cases end in death
- Chile: Chile hantavirus count up to 15 this year
- PAHO: Some nations report rise in malaria, P falciparum proportion

U.S. MILITARY

BARDA and Project Bioshield Progress Report details core national security role

17 February - ... Project Bioshield, and the related Biomedical Advanced Research Development Authority (BARDA), recently published a 10-year progress report on their efforts. ... Achievements ... include 80 candidate countermeasures, 21 stockpiled countermeasures, and 6 FDA approvals for CBRN indications. Included in the FDA approval are 2 monoclonal antibodies for anthrax ... as well as the heptavalent botulism antitoxin and a postexposure prophylaxis dosing regimen for the existing anthrax vaccine. Additionally, several nonlicensed but important products ... include a smallpox antiviral and a smallpox vaccine to be used in people for whom the standard vaccine is contraindicated. Radiation countermeasures have also progressed under BARDA/Project Bioshield stewardship, with both biodosimetry devices and cytokines being supported. Stockpiling of an antimicrobial burn dressing, development of burn eschar dissolving agents, and development of skin growth/regeneration products have also occurred. In the chemical realm, a midazolam auto-injector, to be used in the event of nerve gas poisoning, is in late stages of development. Clinicians’ Biosecurity News

GAO report: DOD, HHS, DHS should use existing mechanisms to better coordinate pandemic outbreak response capabilities

17 February - According to a recent report conducted by the Government Accountability Office (GAO), the U.S. Departments of Defense (DOD), Health and Human Services (HHS) and Homeland Security (DHS) should use existing coordination mechanisms to improve their response capabilities in the event of an outbreak of pandemic disease.... Currently, the DOD has defined guidance and plans in providing assistance in support of both the DHS and HHS. While DHS and HHS have plans to guide their response to a pandemic, the GAO report found that those plans do not explain how the agencies would respond in a resource-constrained environment. The report notes that the agencies currently have mechanisms — such as interagency working groups, liaison officers, and training exercises — to coordinate their responses to a pandemic outbreak. Homeland Preparedness News
Rates of \textit{Chlamydia trachomatis} infections across the deployment cycle, active component, U.S. Armed Forces, 2008–2015

January 2017 - High rates of sexually transmitted infections (STIs), including \textit{Chlamydia trachomatis} (CT), have been documented among U.S. military service members. ... This article characterizes the rates of CT infections during the predeployment, deployment, and post-deployment phases for active component members of the U.S. Army, Navy, Air Force, and Marine Corps during 2008–2015. ... In these analyses, the crude and adjusted incidence rates of CT were found to be highest during the pre-deployment phase for both sexes. However, men's rates of CT differed only slightly across pre-, post-, and non-deployed phases, while women had substantial rate differences between phases. 

Medical Surveillance Monthly Report

Social media can help find and help individuals at risk of suicide

16 February - On January 18, experts in mental health, suicide prevention and social media met with military officials at the Pentagon to discuss how social media can find individuals at risk for suicide and offer them help and resources. ... [AnnaBelle Bryan] and other researchers examined the social media accounts of hundreds of military service members who passed away between 2010 and 2011. The results were striking. ... "Using that year of data, we were able to predict at six months prior to death, three months, one month and one week prior to death," Bryan explained. "We were able to predict who might be at risk for suicide. We were able to determine who had died by suicide versus who had not died by suicide." Social media can also be used to offer help and resources to individuals with harmful thoughts or actions. Utah Public Radio

GLOBAL

Australia's mosquito-borne Ross River virus could become global epidemic, researchers say

22 February - Australia's Ross River virus has the potential to become a global epidemic, similar to the Zika virus, researchers say. It was previously thought that the mosquito-borne virus could only sustain itself among marsupials, which kept the disease endemic to Australia and Papua New Guinea. But research fellow at the University of Adelaide
The Food Safety Survey is a periodic national telephone survey of adults (18 years and older) in the 50 states and the District of Columbia. FDA in collaboration with the U.S. Department of Agriculture (USDA), Food Safety and Inspection Service (FSIS) has been commissioning the survey since 1988. The survey is intended to help FDA and USDA make informed regulatory, education, and other decisions by providing a better understanding of consumer knowledge, attitudes, and practices related to food safety.

Professor Philip Weinstein said he and his partners at the Australian National University (ANU) found the disease silently planting roots in the South Pacific. ... Professor Weinstein said the new finding meant that even though there were no marsupials in the Pacific Islands, the virus was seemingly able to maintain itself there anyway. He warned that if the virus could sustain itself in areas where there were no marsupials, "then it could sustain itself anywhere in the world". "That certainly means that it could be another global outbreak like Zika or Chikungunya a few years before that, another mosquito-borne virus that suddenly went global," he said. ABC News

Bad hospital design is making us sicker

22 February - ... It's no secret that hospital-acquired infections are an enormous contributor to illness and death, affecting up to 30 percent of intensive care unit patients. But housing patients together very likely exacerbates the problem. Research suggests that private rooms can reduce the risk of both airborne infections and those transmitted by touching contaminated surfaces. One study reported that transitioning from shared to private rooms decreased bacterial infections by half and reduced how long patients were hospitalized by 10 percent. Other work suggests that the increased cost of single-occupancy rooms is more than offset by the money saved because of fewer infections. Installing easier-to-clean surfaces, well-positioned sinks and high-quality air filters can further reduce infection rates. The New York Times

Brain connectivity changes linked to mild TBI: Study

23 February - A collaborative study has found that brain connectivity changes could help doctors diagnose mild traumatic brain injury, or mTBI, even without brain lesions present. Brain connectivity is a pattern of anatomical links of interactions between distinct portions of the nervous system. ... The study found differences in brain connectivity in patients with mTBI compared to healthy patients, including different patterns depending on the presence of brain lesions. ... Researchers said by analyzing changes in brain connectivity, they can diagnose and predict the long-term effects of mTBI on cognitive and behavioral factors. UPI

Ebola vaccine found highly protective

21 February - A single dose of the experimental Ebola vaccine, rVSV-ZEBOV, was highly effective in preventing Ebola virus disease (EVD) among those in contact with patients with confirmed disease, according to the final results from a large trial conducted in Guinea. ... Involving almost 12,000 people in the coastal region of Basse-Guinea, the study used a "ring vaccination" approach inspired by the strategy used to eradicate smallpox. The investigators vaccinated a ring, or cluster, of all contacts and contacts of contacts of people who had confirmed EVD. Each cluster was made up of about 80 people. In the beginning of the trial, the clusters were randomized to receive the vaccine either immediately after being identified as a contact or after a 21-day delay. JAMA (abstract only)
Ebola virus RNA in semen from an HIV-positive survivor of Ebola

April 2017 - Ebola virus is known to persist in semen of male survivors of Ebola virus disease (EVD). However, maximum duration of, or risk factors for, virus persistence are unknown. We report an EVD survivor with preexisting HIV infection, whose semen was positive for Ebola virus RNA 565 days after recovery from EVD. Emerging Infectious Diseases

How soap, chairs and clothing could stop mosquito bites -- and diseases

20 February - ... [E]xperts believe creative ideas are needed to help those who remain unprotected [from malaria.] ... "Repellent can be fitted on your wall ... on a floor mat ... their chair ... sandals.” [Fredros] Okumu’s team is making this wide range of goods mosquito-free by fitting them with a bespoke fabric coated with mosquito repellent. ... The repellents are volatile in nature, meaning they easily evaporate and can be detected from greater distances than ones that typically sit on your skin. Prototypes of the fabric on a chair have shown protection for up to six months. ... [Soumyadipta] Acharya's team is trying ... permethrin, in soap. ... [T]eams are also working on banners to be hung near homes that emit repellents, as well as traps with real-time sensors to monitor mosquito numbers in a community and alert residents to protect themselves when spikes occur. ... [James] Logan is also working on technologies to protect people through the clothes they wear and the accessories and furniture they own. His approach with clothing is two-pronged: impregnating the clothes themselves and also the detergents they’re washed with. CNN

Microsoft helps build a mosquito trap with brains

18 February - ... A new high-tech [mosquito trap] is promising to catch the bloodsuckers while letting friendlier insects escape — and even record the exact weather conditions when different species emerge to bite. ... [Ethan] Jackson’s trap consists of 64 “smart cells,” compartments outfitted with an infrared light beam. When an insect crosses the beam, its shadow changes the light intensity in a way that forms almost a fingerprint for that species, Jackson said. Program the trap for the desired species — such as the Aedes aegypti mosquito that is the main Zika threat — and when one flies into a cell, its door snaps closed. In pilot testing in Harris County, Texas, last July and August, the trap was more than 90 percent accurate in identifying the insect buzzing through the door, Jackson said. The Seattle Times

New test may quickly identify mild traumatic brain injury with underlying brain damage

16 February - A new test using peripheral vision reaction time could lead to earlier diagnosis and more effective treatment of mild traumatic brain injury, often referred to as a concussion, according to Peter J. Bergold, PhD. ... While most patients with mild traumatic
brain injury or concussion fully recover, a significant number do not, and earlier diagnosis
could lead to better management of patients at risk for developing persistent symptoms. 
"Mild traumatic brain injury is currently diagnosed with subjective clinical assessments," says 
Dr. Bergold. "The potential utility of the peripheral vision reaction test is clear because it is 
an objective, inexpensive, and rapid test that identifies mild traumatic brain injury patients 
who have a more severe underlying injury." Newwise

NIH begins study of vaccine to protect against mosquito-borne diseases

21 February - The National Institute of Allergy and Infectious Diseases ... has launched a 
Phase 1 clinical trial to test an investigational vaccine intended to provide broad protection 
against a range of mosquito-transmitted diseases, such as Zika, malaria, West Nile fever and 
dengue fever, and to hinder the ability of mosquitoes to transmit such infections. ... Unlike 
other vaccines targeting specific mosquito-borne diseases, the AGS-v candidate is designed 
to trigger an immune response to mosquito saliva. ... The test vaccine contains four 
synthetic proteins from mosquito salivary glands. The proteins are designed to induce 
antibodies in a vaccinated individual and to cause a modified allergic response that can 
prevent infection when a person is bitten by a disease-carrying mosquito. NIH

Snail venom compound 'offers chronic pain therapy'

21 February - Venom from a small snail could be used to develop a treatment for chronic pain, scientists from the US suggest. Normally used to paralyse or kill its prey, the venom also contains a compound that appears to act as long-lasting pain relief. In research on rats, the compound was still working three days later. ... Most medicines for moderate to severe pain, called opioids, work by reducing the perception of pain. They do this by attaching to specific proteins in the brain and organs of the body, called opioid receptors. But the Rg1A compound found in the venom of a Conus regius snail, a native of the Caribbean, works in a different way using a new pathway. ... Scientists ... said the compound appeared to have a beneficial effect on parts of the nervous system. And this could open the door to new opportunities to treat pain, they said. They said drugs that worked in this way could reduce the use of opioids. BBC News

Study: Contract tracing, spraying limit dengue

17 February - A paper published today ... showed that spraying insecticides indoors can reduce dengue transition by up to 96%. The data comes from an outbreak in Cairns, Australia, where local health officials targeted indoor spraying on viral "hot spots." ... Workers applied insecticides in households within 100 meters of many of the 902 confirmed dengue cases. The insecticide was sprayed once and lasted for 2 to 3 months. ... An analysis comparing targeted areas versus non-targeted areas saw dengue transmission reduced by 86% to 96%. Though the method is costly and time consuming, the authors suggest it could be useful for Zika, another vector-borne disease that is transmitted by the Aedes aegypti mosquito, a species that likes to live indoors. CIDRAP News Scan (third item)
TB immune response in children may predict later disease

15 February - South African infants with the highest levels of immune reactivity to tuberculosis infection based on a common diagnostic test showed a significantly increased risk of developing the disease within the next two years, researchers said. Compared to non-converters, infants with QuantiFERON-TB Gold In-Tube (QFT) conversion at interferon-gamma values higher than 4.00 IU/mL were linked with a more than 40 times higher risk of developing tuberculosis disease in the next 6 to 24 months (IRR 42.2, 95% CI 17.2-99.7, P<0.001). ... [T]he test does not identify which persons are at the highest risk for developing tuberculosis disease, only that individuals who test IGRA positive have a twofold to threefold increased risk for later disease. MedPage Today

Three deadly viruses that could spawn the next pandemic

20 February - ... Chinese authorities are closing live poultry markets as H7N9 courses through the country. ... [T]his strain of avian flu appears to have been transmitted only through contact with live poultry, but there’s always a fear it will mutate and start passing between humans. ... Here are a few more possibilities worth keeping an eye on: Crimean-Congo haemorrhagic fever: ... [I]t’s endemic in some Muslim countries where large-scale animal slaughter is part of celebrating ... for the holiday of Eid al-Adha. ... There is no vaccine for Crimean-Congo, and there is no cure, although antiviral drugs have shown some promise. Nipah virus: [L]arge fruit bats that carry the virus found their natural habitats in Malaysia destroyed. So they moved to fruit trees that happened to be in fairly close proximity to pig farms. The pigs ate fruit contaminated by bat urine and saliva, the virus spread quickly among livestock, and again farm workers were the first hit. ... But humans can also get Nipah by drinking raw palm date sap. ... Nipah scares researchers because it kills quickly. ... Middle East Respiratory Syndrome (MERS): It’s deadly – a reported 36 percent of patients die – and looks to have come to humans via bats, again. ... While MERS is deadlier than its cousin SARS, it is also less contagious. It is spread through close contact with an infected person, and most transmissions have been in healthcare settings. IRIN

ZIKA VIRUS

New studies highlight Zika's spread, microcephaly

20 February - Three new studies published today look at how Zika spread so rapidly in the Americas, and why and how the virus causes significant brain damage and microcephaly in children. Authors ... generated 100 Zika virus genomes in an effort to understand how and why the virus spread so rapidly in 2015 and 2016. They found the samples had great genomic diversity, and dating analysis showed that four clades of the virus circulated in early- to mid-2015, a full year before the first detected case in several countries, including Peru and United States. ... A cell-culture study ... helps explain why Zika virus can cause
Zika may cause miscarriages, thin brain tissue in babies carried to term

21 February - Johns Hopkins researchers say that in early pregnancy in mice with complete immune systems, Zika virus can cross the placenta – intended to protect the developing fetus – and appears to lead to a high percentage of miscarriages and to babies born with thin brain tissue and inflammation in brain cells. ... [T]he researchers found that the Zika virus appears to create disorganization in the cellular layers of the placenta that keep toxins, bacteria and viruses from crossing. This disorganization could be how the virus penetrates the placenta to infect the fetus. The researchers also discovered a mechanism by which Zika may be keeping antiviral proteins in the body from doing their job of protecting cells from the virus. These findings - put scientists one step closer to developing targets for vaccines or other treatments for Zika. Johns Hopkins Bloomberg School of Public Health News

INFLUENZA

APHC: U.S. Army Influenza Activity Report

For the week ending 11 February 2017 (Week 6):
The number of positive influenza A, influenza B, and RSV specimens has steadily been increasing over the past few weeks among Army military treatment facilities.

- ILI Activity: Army ILI (influenza-like illness) outpatient visits in week 6 were 12% higher than the same week last year.
- Influenza cases: Nine hospitalized influenza-associated cases were reported to APHC through DRSi in week 6: 1 AD Service Member and 8 non-AD beneficiaries.
- Viral specimens: During week 6, 982 of 2920 (34%) lab specimens tested positive for respiratory pathogens. Of 779 influenza A-positive specimens, RHC-A reported 362 (46.5%), followed by RHC-C (345, 44.2%), RHC-E (42, 5.4%), RHC-P (27, 3.5%), and CENTCOM (3, 0.4%). APHC

CDC: Flu View - Weekly U.S. Influenza Surveillance Report

During week 6 (February 5-11, 2017), influenza activity increased in the United States.
Viral Surveillance: The most frequently identified influenza virus subtype reported by public health laboratories during week 6 was influenza A (H3). The percentage of respiratory specimens testing positive for influenza in clinical laboratories increased.

Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was above the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.

Influenza-associated Pediatric Deaths: Nine influenza-associated pediatric deaths were reported. CDC

China: China confirms high-path H7N9 in market poultry

21 February - Signaling a shift in the H7N9 avian influenza away from the low-pathogenic strain, China’s agriculture ministry said the highly pathogenic form of the virus has been detected at live-bird markets in Guangdong province for the first time. ... Since it was first detected in early 2013, the novel virus has circulated in poultry as a low-pathogenic strain, which has made it difficult for animal health officials to identify outbreaks. Often, human illnesses have been sentinels that the virus is present in local poultry, especially at live-bird markets. However, over the weekend the Guangdong province Center for Disease Control said two recent samples in humans showed mutations that suggest H7N9 may be becoming more pathogenic in birds. ... Authorities have closed the affected live-poultry markets and have stepped up surveillance throughout Guangdong province. CIDRAP

China: Human infection with avian influenza A(H7N9) virus

20 February - ... Between 19 January and 14 February 2017, the NHFPC reported a total of 304 human cases of infection with avian influenza A(H7N9). Onset dates range from 13 December 2016 to 9 February 2017. Of these 304 cases, 86 are female (28%). Cases range in age from 3 to 85 years, with a median age of 58 years. ... At the time of notification, there were 36 deaths, two cases had mild symptoms and 82 cases were diagnosed as either pneumonia (34) or severe pneumonia (48). The clinical presentations of the other 184 cases are not available at this time. 144 cases reported exposure to poultry or live poultry market, 11 cases have no clear exposure to poultry or poultry-related environments. 149 cases are under investigation. ... While common exposure to poultry is likely, human to human transmission cannot be ruled out. To date, a total of 1222 laboratory-confirmed human infections with avian influenza A(H7N9) virus have been reported through IHR notification since early 2013. WHO

China: Study of Chinese poultry workers finds high rate of H5, H9 exposure

21 February - In an effort to better clarify clinical and transmission patterns of H7N9 and
other avian influenza strains, given that severe infections might be the tip of the iceberg, researchers from the Netherlands and China's Guangdong province yesterday published new findings from a 3-year serology study that compared serology findings in poultry workers with those of healthy blood donors. ... Higher antibody levels were found in the blood of poultry workers for recent H5 and H9 strains, with the differences most pronounced in younger age-groups for antigens from the older strains. The team found that 7% of poultry workers had titers above 80 for H5N1 antigen along with an H5 antibody profile specific to that group. ... For H7, the team found a much lower prevalence, with findings limited to poultry workers from two live-poultry markets.

CIDRAP News Scan (second item)

Europe: Early 2016/17 vaccine effectiveness estimates against influenza A(H3N2)

16 February - We measured early 2016/17 season influenza vaccine effectiveness (IVE) against influenza A(H3N2) in Europe using multicentre case control studies at primary care and hospital levels. IVE at primary care level was 44.1%, 46.9% and 23.4% among 0–14, 15–64 and ≥ 65 year-olds, and 25.7% in the influenza vaccination target group. At hospital level, IVE was 2.5%, 7.9% and 2.4% among ≥ 65, 65–79 and ≥ 80 year-olds. As in previous seasons, we observed suboptimal IVE against influenza A(H3N2). Eurosurveillance

ECDC: Flu News Europe

Week 6/2017 (6-12 February 2017)

- Influenza activity remained elevated across the region with 24 of 43 countries reporting medium to very high intensity and 22 reporting widespread influenza activity.
- The proportion of influenza virus detections among sentinel surveillance specimens decreased slightly to 42% from 45% in the previous week.
- The great majority of influenza viruses detected were type A (92%) and, of those subtyped, 99% were A(H3N2).
- The number of new hospitalized laboratory-confirmed influenza cases reported, primarily in people aged 65 years or older, continued to decrease. European Center for Disease Prevention and Control/WHO

MIT, GlaxoSmithKline launch flu tracking app Flumoji

17 February - Pharmaceutical giant GlaxoSmithKline and MIT Connection Science have launched a new flu app called Flumoji to help users track symptoms and share that information with researchers working to improve disease surveillance. ... Flumoji is an Android app that includes educational material about the flu as well as symptom tracking features, which includes collection of data already being captured by the phone: The Flumoji app tracks a variety of real-time data from a user's phone in order to detect fluctuations in a user's activity levels, social levels, and general routine. These fluctuations are used to predict whether a user is experiencing flu-like outbreak. ... Flumoji is actually part of a research
study that will last 6 months, presumably to see if factors like activity data can predict flu cases or disease severity. MedPage Today

NHRC: Febrile Respiratory Illness Surveillance Update

For the week ending 2 January 2016:

- Influenza: Sixteen cases of NHRC laboratory-confirmed influenza [14 influenza type A(H3) and 2 influenza type B] among US military basic trainees.
- FRI surveillance at all eight U.S. military basic training centers indicated FRI rates were elevated at Fort Jackson, NRTC Great Lakes, and MCRD Parris Island.

Naval Health Research Center

USAFSAM & DHA: DoD Global, Laboratory-Based, Influenza Surveillance Program

During 29 January - 11 February 2017 (Surveillance Weeks 5 & 6), a total of 522 specimens were collected from 52 locations. Results were finalized for 410 specimens from 48 locations. During Week 5, one influenza A/not subtyped & rhinovirus/enterovirus coinfection, 114 influenza A(H3N2), 12 influenza B, and one influenza B & human metapneumovirus & rhinovirus/enterovirus coinfection were identified. During Week 6, 101 influenza A(H3N2) and seven influenza B viruses were identified. Approximately 44% of specimens tested positive for influenza during Week 5. Approximately 48% of specimens tested positive for influenza during Week 6. The influenza percent positive for the season is approximately 30%. US Air Force School of Aerospace Medicine & Defense Health Agency

WHO: Influenza Update

20 February - Influenza activity in the temperate zone of the northern hemisphere continued to be elevated. Many countries especially in East Asia and Europe appeared to have already peaked and were reporting decreasing trends. Worldwide, influenza A(H3N2) virus was predominant. The majority of influenza viruses characterized so far were similar antigenically to the reference viruses contained in vaccines for use in the 2016-2017 northern hemisphere influenza season. Nearly all tested viruses collected recently for antiviral sensitivity were susceptible to the neuraminidase inhibitor antiviral medications. WHO

VETERINARY/FOOD SAFETY

Another 130 cheese products recalled for *Listeria*; FDA gagged

21 February - More than 130 additional cheeses and products containing cheeses are under
recall because of *Listeria monocytogenes* found in cheese produced by Deutsch Kase Haus LLC. A variety of cheese brands are involved, including Sargento, Sara Lee, Saputo, Dutch Valley and Guggisberg, as well as a variety of store-branded products sold by Meijer, Albertsons, H-E-B and other retailers. The Food and Drug Administration is investigating the situation along with officials in several states. However, a clause in the federal code prevents FDA from releasing information about what companies bought cheese from Deutsch Kase Haus because such details are considered “confidential corporate information.” No illnesses have been confirmed in connection with the recalled products, but it can take up to 70 days for *Listeria* infection symptoms to develop. Food Safety News

**Collapse of Aztec society linked to catastrophic *Salmonella* outbreak**

16 February - One of the worst epidemics in human history, a sixteenth-century pestilence that devastated Mexico’s native population, may have been caused by a deadly form of *Salmonella* from Europe. ... [R]esearchers say they have recovered DNA of the stomach bacterium from burials in Mexico linked to a 1540s epidemic that killed up to 80% of the country’s native inhabitants. ... [A] team ... extracted and sequenced DNA from the teeth of 29 people buried in the Oaxacan highlands of southern Mexico. All but five were linked to a *cocoliztli* that researchers think ran from 1545 to 1550. Ancient bacterial DNA recovered from several of the people matched that of *Salmonella*, based on comparisons with a database of more than 2,700 modern bacterial genomes. Further sequencing of short, damaged DNA fragments from the remains allowed the team to reconstruct two genomes of a *Salmonella enterica* strain known as Paratyphi C. Nature

**Fearing "feral hog apocalypse," Texas approves drastic measures**

22 February - Announcing the “feral hog apocalypse” is within reach, Texas Agriculture Commissioner Sid Miller has approved of the first pesticide targeting wild pigs, CBS Dallas reports. The estimated 2.5 million feral hogs in Texas cost an estimated $50 million a year in damage to Texas agriculture. ... Miller said they will use the pesticide, Kaput Feral Hog Lure, as bait food laced with warfarin which is the same drug used to kill rats. ... But the move has upset hunters, who’ve gathered more than 1,200 signatures in opposition within two days. “We don’t think poison is the way to go,” said Eydin Hansen, Vice President of the Texas Hog Hunters Association. He prefers hunting and trapping methods to control the invasive species. ... Hunters and conservationists are afraid other animals may be exposed to toxin. MSN

**Research finds *Salmonella* food poisoning could damage DNA**

22 February - Research at Cornell University has found that *Salmonella* food poisoning caused by some serotypes of the pathogenic bacteria could permanently damage your
DNA. ... [Researchers] looked at many serotypes of *Salmonella* that encode for cytolethal distending toxin, or S-CDT, a virulence component for serotype Typhi. While *Salmonella* Typhi causes typhoid fever, the other serotypes Javiana, Montevideo, Oranienburg, and Mississippi also carry the genetic material that encodes that toxin. ... *Salmonella* bacteria with S-CDT led hallmark signatures that show the presence of DNA damage. That could contribute to "long-term disease consequences," according to [Rachel] Miller.

**Food Poisoning Bulletin**

Researchers zap noro on fresh lettuce with blast of ionized gas

22 February - ... Among the most delicate and most prone to carry foodborne illnesses are leafy greens. Among the most difficult to kill bugs is norovirus. But a microbiologist at the University of Minnesota-St. Paul is working on a solution. ... [Researchers] exposed romaine lettuce leaves to a cold plasma treatment after they had been intentionally contaminated with norovirus. The same treatment was also used on stainless steel surfaces similar to those found in salad packing plants. After only five minutes of cold plasma treatment, ions in the plasma wiped out about 99 percent of norovirus particles. ... Encouraged by their success with the romaine-norovirus demonstration, the researchers are testing their cold plasma device on other pathogens, including Hepatitis A. **Food Safety Bulletin**

**WELLNESS**

After CVS stopped cigarette sales, smokers stopped buying elsewhere, too

20 February - The decision by CVS Health to stop selling cigarettes contributed to a drop in tobacco purchases for all retailers, new data from the drugstore giant shows. The analysis, published in the *American Journal of Public Health*, comes less than three years after the company in fall of 2014 stopped selling all tobacco products in an unprecedented move that gained national attention from public health advocates, doctors and the White House. "After CVS's tobacco removal, household- and population-level cigarette purchasing declined significantly," the study concluded. **Forbes**

Brain scans 'may spot teen drug problems'

22 February - An international team of scientists say the way teenagers' brains are wired
may help predict whether they will develop drug problems in the future. The team looked at adolescents who were generally more impulsive than their peers - a trait sometimes linked to the misuse of drugs. They found teenagers who had a particular pattern of activity on brain scans were more likely to misuse drugs. ... Scientists asked 144 adolescents who had not previously used recreational drugs to fill in questionnaires and take part in behavioural tests to assess how impulsive they were and how attracted they were to trying new things. ... They found those teenagers who had less nerve activity in these brain areas during these tasks, were more likely to have drug problems two years later. BBC News

Legalizing same-sex marriage was associated with fewer youth suicide attempts, new study finds

21 February - Suicide, after fatal injuries and homicides, is the most frequent cause of death for U.S. citizens between the ages of 15 and 24. Certain young Americans, in particular, are at increased risk of dying by suicide. Gay, lesbian and bisexual youth attempt to take their lives at a rate four times higher than heterosexual teenagers, according to the Trevor Project, a nonprofit that offers a national hotline and other suicide prevention efforts for young LGBT people. In the past few years, public health experts have increasingly investigated the factors, such as mental illness or substance abuse, behind why teenagers attempt suicide. More recently, researchers ... asked ... whether the legalization of same-sex marriage could have an impact on suicide attempts in adolescents. Such an association seems to exist, at least based on self-reported data from more than 750,000 students. ... [S]tudents living in states where same-sex marriage was legalized saw a drop in suicide rates, compared to students living elsewhere. The Washington Post

Self-guided cognitive behavioral therapy may help depression

22 February - Online programs offering cognitive behavioral therapy (CBT) without the therapist can reduce depression symptoms for some, according to a new review of existing research on the topic. Automated CBT programs, or iCBT, which work to change a patient’s non-productive thoughts, attitudes and beliefs, are designed to make it easier for people to get therapy at low cost and with less fear of stigmatization. But recent large trials have produced conflicting answers about whether such self-guided internet-based therapy is effective. In the new analysis, researchers attempted to resolve the issue by examining data from 13 studies comparing iCBT to alternative treatments or to a placebo and involving a total of 3,832 patients. Compared to the 1,603 depressed patients in control groups - who received other treatments, care from a general practitioner, attention placebo or were put on a waiting list - people who used the iCBT websites were significantly more likely to show improvement. And when it was effective, online cognitive therapy was just as likely to work regardless of the patient’s degree of depression. Reuters

Testosterone replacement for men 'trade-off with risks'

21 February - Older men with low testosterone levels might benefit from hormone
treatment for healthy bones, but it may also increase their risk of heart problems, US trials suggest. Levels of the male hormone gradually decrease naturally as men get older. Doctors agree men of any age with very low levels and symptoms such as low libido and erectile dysfunction should be considered for testosterone therapy. But the debate rages about where the treatment cut-off level should sit. In the US, selling testosterone direct to consumers has become big business. … At 12 months, testosterone treatment was linked to:
- an increase in bone density (which is linked to a lower risk of fractures)
- a reduced chance of having anaemia (a low red blood cell count)

But also:
- no real change in memory or cognition
- a build-up of soft deposits in the blood vessels of the heart muscle. BBC News

XtraHRD Natural Male Enhancement Capsules recalled

22 February - Organic Herbal Supply is recalling all lots of XtraHRD Natural Male Enhancement Capsules. FDA analysis found the product contains Tadalafil, an FDA approved drug used as treatment for male Erectile Dysfunction. This ingredient is not listed on the label. Tadalafil can interact with nitrates found in some prescription drugs such as nitroglycerin and may lower blood pressure to dangerous levels. Anyone who diabetes, high blood pressure, high cholesterols, or heart disease often takes nitrates. Food Poisoning Bulletin

Africa: The nexus between forest fragmentation in Africa and Ebola virus disease outbreaks

14 February - Tropical forests are undergoing land use change in many regions of the world, including the African continent. Human populations living close to forest margins fragmented and disturbed by deforestation may be particularly exposed to zoonotic infections because of the higher likelihood for humans to be in contact with disease reservoirs. Quantitative analysis of the nexus between deforestation and the emergence of Ebola virus disease (EVD), however, is still missing. Here we use land cover change data in conjunction with EVD outbreak records to investigate the association between recent (2004–2014) outbreaks in West and Central Africa, and patterns of land use change in the region. We show how in these EVD outbreaks the index cases in humans (i.e. spillover from wildlife reservoirs) occurred mostly in hotspots of forest fragmentation. Scientific Reports

Africa: UN demands action as famine looms in three countries

21 February - Almost 1.4 million children suffering from severe malnutrition could die this
year as famine looms in Nigeria, Somalia and Yemen, the UN children’s agency said. … In Yemen, where war has been raging for nearly two years, 462,000 children are suffering from acute malnutrition, while 450,000 children are severely malnourished in northeast Nigeria. … Drought in Somalia, meanwhile, has left 185,000 children on the brink of famine but that figure is expected to reach 270,000 over the next few months, said UNICEF. Al Jazeera

Cameroon: Bushmeat trade tests Cameroon's Ebola prevention

21 February - … [F]orest towns like Amban - with their teeming fruit bat and wildlife populations, a huge appetite for bushmeat, and porous borders - lie at the heart of what officials describe as a “potential hotbed” of Ebola. When fruit bats, which are believed to be the natural hosts of the Ebola virus, infect other wildlife, humans can pick up the virus from the secretions, blood or other bodily fluids of affected animals, warn health officials and organisations, such as the World Health Organisation (WHO) and the Centers for Disease Control (CDC). Humans can then infect each other, often rapidly. … Associating Ebola with bushmeat in any way has met scepticism, suspicion and a quiet rebellion in these parts of Cameroon; it emerged from more than a dozen interviews with health workers, hunters, bushmeat dealers and consumers. Al Jazeera

São Tomé and Príncipe: Mystery outbreak - suspected Buruli ulcer

23 February - An unknown disease that has afflicted some 2,000 people on the African island nation of São Tomé and Príncipe remains a mystery as Portuguese doctors try to figure out the etiology and cure, according to Portugal media (computer translated). “Studies are being done by the World Health Organization (WHO) and the Ricardo Jorge Institute of Portugal with Portuguese cooperation,” said Afonso Varela, Minister of the Presidency of the Council of Ministers and Parliamentary Affairs. WHO sent a specialist from Benin because the pathology was similar to a common disease in Africa, particularly in Benin; however, a conclusion has yet to be met. Earlier this month, media accounts reported the mystery disease may have been Buruli ulcer. Outbreak News Today

South Sudan: UN, government declare famine in parts of South Sudan

20 February - Famine can be added to the list of South Sudan’s problems, according to the government and the U.N. International Children’s Fund, Food and Agriculture Organization, and World Food Program. They say conflict, a collapsing economy, high food prices, and low agricultural production are to blame for food insecurity across the country, and for famine in two counties in southern Unity State, affecting more than 100,000 people, with the threat of spreading further. VOA
Togo: Meningococcal disease

23 February - Since 1 January 2017, 201 suspected cases of meningitis with 17 deaths were reported by 19 health districts. In week 2, the district of Akebou which is part of the Plateau Region issued an alert after four cases of meningitis were reported. In week 4, the epidemic threshold was reached with nine cases and an attack rate of 12.4 per 100,000 inhabitants. From 2 January to 12 February 2017, 48 suspected meningitis cases with three deaths were reported (case fatality rate of 6.3%). Of these, 14 specimens were confirmed as Neisseria meningitidis serogroup W by PCR. WHO

USCENTCOM

Saudi Arabia: Officials confirm 6 new MERS cases, 1 death in Saudi Arabia

20 February - Over the past 4 days, Saudi Arabia's Ministry of Health (MOH) reported a flurry of MERS cases, one of them fatal and all involving men. ... The cases raise the country's MERS total to 1,563 cases, including 650 deaths. Eleven patients are still being treated for the disease. CIDRAP News Scan (first item)

USEUCOM

Europe: 'Alarming' superbugs a risk to people, animals and food, EU warns

22 February - Superbug bacteria found in people, animals and food across the European Union pose an "alarming" threat to public and animal health having evolved to resist widely used antibiotics, disease and safety experts warned on Wednesday. A report on antimicrobial resistance in bacteria by the European Food Safety Authority (EFSA) and the European Centre for Disease Prevention and Control (ECDC) said some 25,000 people die from such superbugs in the European Union every year. ... Wednesday's report highlighted that in Salmonella bacteria - which can cause the common and serious food-borne infection Salmonellosis - multi-drug resistance is high across the EU. Reuters
United Kingdom: A push for diesel leaves London gasping amid record pollution

17 February - ... London is choking from record levels of pollution, much of it caused by diesel cars and trucks, as well as wood-burning fires in private homes, a growing trend. ... London’s air pollution today is different from seven decades ago, and more insidious. No longer thick as “pea soup,” as it was traditionally described, the city’s air is now laced with nitrogen dioxide — a toxic gas mostly produced by vehicles with diesel engines. The pollution is linked to 23,500 deaths in Britain each year, according to the Department for Environment, Food and Rural Affairs. Britain has the highest number of annual deaths from nitrogen dioxide in the European Union after Italy, European Union statistics show. On Wednesday, the European Union ordered five members, including Britain, to reduce car pollution levels or risk being sent to the European Court of Justice where they could face huge financial penalties. The New York Times

United Kingdom: No prescription required - study looks at online pharmacies, antibiotic use

17 February - A study ... reports that nearly half of online pharmacies available to residents of the United Kingdom don't require a prescription for the purchase of antibiotics. ... Of the 20 online pharmacy sites reviewed, 5 showed evidence of operating in Great Britain. All 5 of those sites were registered with the General Pharmaceutical Council and the Medicines and Healthcare products Regulatory Agency (MHRA)—two groups that monitor and regulate UK pharmacies—and all 5 required a prescription before an antibiotic would be delivered. Fifteen of the Web sites did not have evidence of appropriate registration, which is required by law. Overall, nine of the online pharmacies (45%) did not require a prescription for purchase of an antibiotic. In addition, 16 of the online pharmacies (80%) surveyed let the consumers choose the type of antibiotic, the dose, and the duration.

CIDRAP Stewardship/Resistance Scan (second item)

top of page...

USNORTHCOM

Canada: Mumps outbreak in Toronto appears linked to downtown bars - health officials

23 February - Public health officials in Toronto say they’re investigating 14 mumps cases apparently linked to bars in the city’s downtown. Toronto Public Health says the lab-
confirmed cases involve people between 18 to 35 years of age, and they're following up with people who are known to have been exposed to the confirmed cases. Investigators say many of the people with confirmed cases had frequented bars in Toronto’s west downtown core, adding this may have been a contributing factor in the circulation of the viral infection. ... Health officials say a major factor contributing to outbreaks is being in a crowded environment, such as attending the same class, playing on the same sports team or living in a dormitory with a person who has the mumps. CTV News

Canada/U.S.: Seoul virus

20 February - On 24 January 2017, the United States Centers for Disease Control and Prevention (CDC), through their Health Alert Network (HAN) publication, reported 8 cases of infection with Seoul virus in the states of Wisconsin (n=2) and Illinois (n=6). The first two cases were reported in early December 2016, when two home-based pet rat breeders in Wisconsin State developed an acute febrile illness, later confirmed as Seoul virus infection. Rats (Rattus norvegicus) at some facilities also tested positive for Seoul virus. ... To date, a total of 11 people have been infected. ... In addition, follow-up investigations by the United States CDC and public health officials in Canada indicate that rats have been exchanged between the United States and Canada. According to the Canada IHR national focal point report of 10 February 2017, the Canadian rat breeding facilities under investigation exported rats to the United States and also imported rats from affected United States facilities. As of 10 February 2017, three positive human cases for the Hemorrhagic Fever Renal Syndrome (HFRS) group of hantaviruses ... have been identified by serology in Canada. WHO


24 February - Norovirus is the most common cause of acute gastroenteritis in the United States. Norovirus outbreaks are reported to CDC by state and territorial health departments. Reporting lags and incomplete reporting have been limitations to norovirus outbreak surveillance systems. The initial five sentinel states that participated in the NoroSTAT network (Minnesota, Ohio, Oregon, Tennessee, and Wisconsin) during the first 3 years reduced the median reporting interval from 22 days to 2 days for epidemiologic data, and from 21 days to 3 days for laboratory data. These states also had more complete reports that better linked epidemiologic and laboratory data. The NoroSTAT network provides near real-time surveillance of norovirus outbreak activity and emerging new strains. Data collected by NoroSTAT-participating states are representative of national trends and can help inform public health response. Morbidity and Mortality Weekly Update

U.S.: NFPA issues fire hose safety bulletin

22 February - The National Fire Protection Association has issued an attack fire hose safety bulletin this week to remind the fire service to purchase, maintain, inspect, remove and
repair fire hose in accordance with [regulations.] "Research shows that flashover occurs eight times faster today, putting firefighters and their equipment at increased risk," said Ed Conlin, Public Fire Protection division manager. ... NFPA reported thermal degradation of fire hoses has been identified as a factor during fire hose failure incidents in recent years.

**Occupational Health & Safety**

**U.S.: Perspectives from inside the climate change-human health conference that rose from the dead**

16 February - ... Dr. Ashish Jha, Director of the Harvard Global Health Institute, made a key point in his opening remarks: "Health is the human face of climate change." This statement is critical because the public often sees climate change as an abstract, "far off" issue that has no direct bearing on them. Studies continue to show that the majority of the public, irrespective of political or other perspectives, has some level of concern about the climate change. However, I often hypothesize that people too often associate it with polar bears, tree-hugging environmentalists or scientists. They can’t see the connections (and they are there) to their grocery bills, national security or health. Public health provides an, "it’s here and now," urgency for the average citizen. The range of experts convened for today’s meeting highlights the various ways that climate change affects health. 

**Forbes**

**U.S.: Trump's travel ban causing angst for America's health system**

21 February - President Trump is finalizing a revised version of his travel ban, temporarily barring people from seven Muslim-majority countries. This comes at a delicate time for the American medical system, as hospitals have until Wednesday to select their next generation of doctors. They are drawing from a pool that includes more than 1,000 applicants from countries on Mr. Trump's list. The U.S. is suffering a severe shortage of primary care physicians, with gaps recorded in almost every state. ... Major health care systems like Southern Illinois University planned to rely on foreign-born doctors. But with talk of the new travel ban, they fear those efforts could fall short. ... One-in-four doctors in the U.S. are foreign born, including an estimated 15,000 from the seven countries already included in Mr. Trump’s travel ban. 

**CBS News**

**U.S.: U.S. life expectancy will soon be on par with Mexico’s and the Czech Republic’s**

21 February - Life expectancy at birth will continue to climb substantially for residents of industrialized nations — but not in the United States, where minimal gains will soon put life spans on par with those in Mexico and the Czech Republic, according to an extensive analysis released Tuesday. South Korean women and Hungarian men are projected to make the largest overall gains (with South Koreans second among males). There is a better-than-even chance that South Korean women will live to an average of 90 years old by 2030, which would be the first time a population will break the 90-year barrier. ... Americans will
gain only a couple of years of life expectancy between 2010 and 2030, the study predicted, keeping life spans in the early 80s for women and late 70s for men. The study projects a life expectancy of 83.3 for women in the United States and 79.5 for men in 2030, up from 81.2 for women and 76.5 for men in 2010. The reasons for the United States' lag are well known. It has the highest infant and maternal mortality rates of any of the countries in the study, and the highest obesity rate. It is the only one without universal health insurance coverage and has the “largest share of unmet health-care needs due to financial costs,” the researchers wrote. The Washington Post

top of page...

USPACOM

Cambodia: H.I.V. stalks prostitutes and their children

20 February – Abortion and AIDS are the two most common causes of death among Cambodian female sex workers, and AIDS is the most frequent cause of death among their children, according to a small new study. Prostitution in poor countries with high H.I.V. rates has lethal consequences not just for women but for their infants, the study found. Mothers engage in riskier sex acts to feed their children, but because they are socially shunned or threatened with arrest, they often cannot get drugs that would prolong their lives or prevent them from infecting their babies. The New York Times

China: China blacklists carfentanil, closing a deadly loophole

16 February - The drug is so strong and deadly, it's been researched as a chemical weapon of warfare; police officers are warned to handle it with extreme care. The opioid carfentanil is 10,000 times more potent than morphine — but until now, it hasn't been a controlled substance in China, where producers have been exporting it abroad. U.S. officials are welcoming the news that China will now list carfentanil as a controlled substance, putting it in the same category as fentanyl — the less powerful opioid of which carfentanil is a variant. ... Potent and addictive, fentanyl and carfentanil have played deadly roles in the opioid epidemic that has swept the U.S. and killed thousands of Americans in recent years. NPR

Sri Lanka: Sri Lanka's antivenom leap forward

18 February - ... Sri Lanka's first national serpentarium [is] home to some 185 venomous snakes. ... [Sanatl] Weeraratne and his team must see to the serpents' health and extract their venom, which is collected and sent to a lab in Costa Rica. It is there that the first polyspecific freeze-dried antivenom to offer protection specifically against Sri Lankan snakes is being produced. ... Its executive director ... is the Sri Lankan-born Roy Malleappah, a herpetological field operations specialist. It has taken him and his team years of dedicated
work to make the Sri Lankan antivenom a reality. ... The antivenom ICP and AVRI have produced is polyspecific - covering multiple species including, for the first time, Sri Lanka's hump-nosed pit viper. It is the most common cause of snakebite envenoming in Sri Lanka and is known to cause serious systemic toxicity and death. Al Jazeera

top of page...

USSOUTHCOM

Brazil: Yellow fever update - 33% of confirmed cases end in death

21 February - The most recent update on the yellow fever outbreak in Brazil reveals additional confirmed cases and deaths since the last update a few days ago. According to the Brazil Ministry of Health ... as of Feb. 20, 1,286 suspected cases of yellow fever were reported to the Ministry of Health, of which 274 were confirmed. To date, 92 confirmed yellow fever deaths have been reported, with the case fatality rate among confirmed cases stands at 33.6%. Of the confirmed cases, 235 have been reported in Minas Gerais state, or 86 percent of the total cases. Seventy-nine of the confirmed fatalities occurred in the state. Outbreak News Today

Chile: Chile hantavirus count up to 15 this year

20 February - Following confirmed hantavirus cases last weekend, bringing the total to 15 so far in 2017, the Chilean Institute of Public Health (ISP) (computer translated) is calling on the public to prevent contact with wild-tailed mice (*Oligorizomys longicaudatus*) in an effort to prevent infection with the virus. Health officials say about 70% of the cases arise between November and March. The increase in cases compares with 4 in 2015 and 10 in 2016 for the same period. Outbreak News Today

PAHO: Some nations report rise in malaria, *

*P falciparum* proportion

17 February - In its latest update on malaria, PAHO said some countries in the region are seeing significant increases in transmission, with some reporting growing rates of cases caused by *Plasmodium falciparum*. The number of cases reached a four-decade low in 2014, but cases rose 16% in 2015, and increases continued in 2016 for some countries, PAHO said in a Feb 15 epidemiologic update. In 2016, Colombia, Ecuador, and Venezuela reported increased malaria infections, along with an increased proportion of illnesses from *P falciparum*, compared with *P vivax*, and carrying with it an increased risk of complications. ... Increases in malaria transmission may reflect environmental conditions driven by cyclical patterns, but in 2015 and 2016, social and economic factors, such as migration flow into
endemic areas or mining activity, might have contributed to transmission.

CIDRAP News Scan (fourth item)