

19 February 2016

Army Public Health Weekly Update

Army Public Health Center

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Zika Infographic

A new product with information on the Zika virus can be downloaded from the [APHC Health Information Products eCatalog](#).



USSOUTHCOM

- [PAHO notes more than 8,000 new chikungunya cases](#)

U.S. MILITARY

Calls to veterans suicide hotline went to voicemail, report says

15 February - At least 23 veterans, troops or family members who called the Veterans Crisis Line in fiscal 2014 were transferred to a voicemail system and their calls never returned, according to a Veterans Affairs Department Inspector General report. The VA watchdog's investigation into the hotline's performance launched last year also found that the centers responsible for the voicemail errors, who were contractors hired to provide backup services when the VA-run Crisis Line is operating at peak, may not have trained their counselors adequately to answer calls from those experiencing a mental health crisis. But because the VA does not train the backup center employees or monitor the centers' training requirements, the department has no way of knowing whether their training is sufficient, the report noted. [Military Times](#)

Landstuhl medical site goes tobacco-free with exceptions for civilians

13 February - Landstuhl Regional Medical Center will go tobacco-free starting Monday, but U.S. civilian employees will be allowed to smoke on unpaid lunch breaks in designated areas away from the campus. ... "Tobacco product use during other breaks throughout the duty day is prohibited for U.S. civilian healthcare workers." ... The plan bans the use of any tobacco products or electronic nicotine devices on hospital grounds. The policy applies to all personnel assigned to U.S. Army Medical Command, including U.S. military members, civilians, and contractors, as well as patients and hospital visitors. [Stars and Stripes](#)

Military falls short in treating new cases of war-related stress

18 February - The U.S. military is struggling to provide adequate therapy sessions for thousands of active-duty troops suffering from post-traumatic stress disorder and depression. ... The RAND Corp. study of 40,000 cases, the largest ever, found that only a third of troops with PTSD and less than a quarter who are clinically depressed receive the minimum number of therapy sessions after being diagnosed. A RAND review of U.S. military and Department of Veterans Affairs treatment guidelines concluded that troops diagnosed with PTSD should receive at least four therapy sessions within eight weeks or at least two sessions to manage newly prescribed medications. The good news in the study: vast improvement in how the Army and other service branches follow up with inpatient cases of

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<http://phc.army.smil.mil>

Look under Hot Topics & Current Issues.

To access this version, you will need a **SECRET** clearance and a SIPRNet account.

PTSD after servicemembers are released from mental hospital care, a crucial period when many suicides occur. [USA Today](#)

Responses to questions about back pain in post-deployment health assessment questionnaires

January 2016 - The Figure depicts, by year of questionnaire completion, the percentage of respondents who responded affirmatively to the questions about back pain. ... Because of the variability, and in some cases, the complex nature of the questions, the possible epidemiologic interpretation of these data is limited. It is reasonable to conclude that back pain is a common affliction among service members during and after deployments, but these data cannot clarify any possible etiologic association between deployments and the causes of back pain. [Medical Surveillance Monthly Report](#)

Thousands sign petition to renew search for Fort Detrick cancer cluster

13 February - ... More than 5,600 people have signed a Change.org petition that asks Maryland's U.S. senators to take another look at a possible cancer cluster near Fort Detrick. ... The fenced-in Area B is a Fort Detrick property where, decades ago, the Army dumped sludge from its former decontamination plants. ... In 2011 and 2014, the state health department reported that it was unable to confirm a cancer cluster near Fort Detrick. According to Clifford Mitchell, director of the Environmental Health Bureau at the Maryland Department of Health and Mental Hygiene, the rate of cancer in the Fort Detrick area is about the same as the rate in the county and the state. ... In a 2012 analysis, the National Research Council acknowledged that there's no way to tell if there is a cancer cluster because of the lack of historical data. [Frederick News-Post](#)

University of Iowa virtual soldiers to predict, mitigate military injuries

15 February - University of Iowa Virtual Soldier Research Program ... has received another grant ... to [use] virtual technology to predict injuries and make conditioning suggestions to avoid them. ... Specially, the new simulation program will focus on predicting and preventing musculoskeletal injuries in marines, which UI officials say is among the leading medical problems hindering military preparedness. ... The new project will build upon the UI Virtual Soldier Program that for more than a decade has used its virtual soldiers — Santos and Sophia — to simulate load configurations, test various scenarios, and recommend optimum equipment designs. ... The new work will use characteristics of individual soldiers — including height, weight, strength, and aerobic capacity — to create virtual simulations in different training environments. The program then will predict injuries, based on a person's unique physicality, and suggest training modifications. [The Gazette](#)

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US military burn pits built on chemical weapons facilities tied to soldiers' illness

16 February - ... [Author of *The Burn Pits: The Poisoning of America's Soldiers*], Joseph Hickman ... conducted a statistical study on a select sample of the thousands of military members who said they were experiencing health effects from their exposure to burn pits in Iraq and Afghanistan. With the help of Seton Hall Law Center, he found that five of the six bases that saw the worst health cases, such as cancers and untreatable bronchial illnesses, were located on or near documented chemical warfare sites, where chemical weapons were left over from Saddam Hussein's rule. Those locations include Mosul, Taji, Tikrit, Tallil and Balad, where Beau [Biden] spent some time serving. And of the 112 service members and contractors Hickman found who served at both Camp Victory and Joint Base Balad like Beau, 31 suffered from different forms of cancers and brain tumors. [The Guardian](#)

Wounded U.S. soldier soon to receive first U.S. penis transplant

18 February - A U.S. soldier wounded in an explosion will be the first person in the United States to receive a penis transplant, doctors at Johns Hopkins Hospital said, which could open the way for about 60 other servicemen with genital injuries to have this surgery. Surgeons hope a donated organ from a recently deceased man will provide full function including urination, sensation and sex. The surgery requires joining nerves and blood vessels under a microscope. Doctors and advocates who work with wounded soldiers note that the loss of the penis is one of the most emotionally traumatic injuries because it affects a sense of identity and manhood, especially for men hoping to become fathers. [Reuters](#)

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GLOBAL

3D 'bioprinter' produces bone, muscle, and cartilage

16 February - A new method of 3D printing can produce human-sized bone, muscle, and cartilage templates that survive when implanted into animals, researchers report. ... [The] team developed a process they call "the integrated tissue and organ printing system," or ITOP for short. ITOP produces a network of tiny channels that allows the printed tissue to be nourished after being implanted into a living animal. ... Five months after implantation, the bone tissue looked similar to normal bone, complete with blood vessels and with no dead areas. ... Human-sized ear implants looked like normal cartilage under the microscope, with blood vessels supplying the outer regions and no circulation in the inner regions (as in native cartilage). ... Results with 3D-printed skeletal muscle were equally impressive. Not only did the implants look like normal muscle when examined two weeks after implantation,

but the implants also contracted like immature, developing muscle when stimulated.

[Reuters](#)

Excitement at new cancer treatment

16 February - A therapy that retrains the body's immune system to fight cancer has provoked excitement after more than 90% of terminally ill patients reportedly went into remission. White blood cells were taken from patients with leukaemia, modified in the lab and then put back. But the data has not been published or reviewed and two patients are said to have died from an extreme immune response. ... The lead scientist ... said all other treatments had failed in these patients and they had only two-to-five months to live. He told the conference that: "The early data is unprecedented." In the trial, cells from the immune system called killer t-cells were taken out of dozens of patients. The cells normally act like bombs destroying infected tissue. The researchers genetically modified the t-cells to engineer a new targeting mechanism - with the technical name of chimeric antigen receptors - to target acute lymphoblastic leukaemia. ... "[A] single dose of this therapy put more than ninety percent of these patients in complete remission where we can't detect any of these leukaemia cells." But one cancer expert told me they still felt in the dark on the full significance of the study, as the data is not available. [BBC News](#)

Monitoring heat injuries in a hazmat environment

February 2016 - ... Personal protective equipment is the most hazardous environment for the development of heat injury. This protective gear along with increased environmental humidity, elevated temperature, and increased workload create a dangerous environment for the individuals involved. Careful monitoring of vital signs is an important factor in avoiding heat injuries. This article proposes that vital signs along with strict monitoring of mental status through (1) orientation; (2) simple task completion; (3) thought processes; and (4) cognitive ability over time combine to be a powerful deterrent to heat injury in an austere and dangerous working environment. ... Finally, careful attention should be placed on correcting hypo- and hypernatremia when rehydrating individuals in this challenging environment. [Federal Practitioner](#)

Online gamers beat supercomputers at RNA modeling

16 February - Online gamers have uncovered better models for folding RNA molecules than supercomputers housed in some of the world's most prestigious research labs. ... The interactive game, Eterna, challenges players to design chemical sequences of RNA that fold stably into desired shapes. An online community of more than 100,000 registered Eterna players discovered features of RNA molecules that make folding them simple or difficult. This matters, researchers say, because understanding the secrets to RNA design may speed development of new antibiotics, vaccines and treatments for disease. [Reuters](#)

Public health researchers map world's 'chemical landscape'

12 February - Researchers ... have created a map of the world's chemical landscape, a catalogue of 10,000 chemicals for which there is available safety data that they say can predict the toxicity of many of the 90,000 or more other substances in consumer products for which there is no such information. The map ... was designed to help regulators, manufacturers and scientists get a good idea about whether chemicals for which there is little research are harmful or not. The research was done by creating a searchable database of the 816,000 research studies conducted on 10,000 chemicals registered in Europe, which includes information about whether they pose a hazard to humans and what type.

[Johns Hopkins Bloomberg School of Public Health News](#)

Scientists blame polluted air for 5.5 million premature deaths each year

12 February - Air pollution is responsible for more than 5.5 million premature deaths every year, with more than half of those deaths coming in China and India, according to new research presented Friday. Scientists warn the early death toll will climb over the next 20 years unless the world does more to fight the problem. The new study was carried out by researchers from China, India, the United States and Canada, who assembled estimates of air pollution levels in China and India and determined their impact on health. "Air pollution is the fourth highest risk factor for death globally and by far the leading environmental risk factor for disease," University of British Columbia professor Michael Brauer said Friday.

"Reducing air pollution is an incredibly efficient way to improve the health of a population."

[VOA](#)

White blood cell found in birds can fight deadly fungal infection killing millions worldwide

18 February - ... A team of researchers at the University of Sheffield showed that the macrophage, a specific white blood cell in birds' blood, blocks the growth of *Cryptococcus neoformans*, a fungus that leads to fatal infections in immunocompromised individuals. Cryptococci, thought to result in hundreds of thousands of human deaths each year and especially endanger AIDS patients, are carried by birds, whose droppings are believed to be a human infection source. It has been unknown, however, why the creatures themselves do not fall ill from the fungi. ... [The] catch is it gets destroyed by the birds' immune system once it attempts to invade their bodies. ... The researchers are working on a global collaboration to study cryptococcosis further and how the human immune system can better defend against this fungus and related sicknesses. [Tech Times](#)

ZIKA VIRUS

Colombia and Venezuela: Guillain-Barré syndrome

12 February - Between 30 January and 2 February 2016, the National IHR Focal Points of Colombia and Venezuela informed PAHO/WHO of increases in the number of Guillain-Barre Syndrome (GBS) cases recorded at the national level. Colombia: From epidemiological week (EW) 51 of 2015 to EW 3 of 2016, 86 GBS cases were reported. On average, Colombia registers 242 GBS cases per year or approximately 19 cases per month or 5 cases per week. ... Initial reports indicated that all the 86 reported GBS cases presented with symptoms compatible with a Zika virus infection. Of the 58 cases for which information is available, 57% were male and 94.8% were 18 years old or older. Venezuela: From 1 January to 31 January 2016, 252 GBS cases with a spatiotemporal association to Zika virus were reported. ... Of the 66 cases, 30% were 45 to 54 years old and 29% were 65 years or older; 61% were male and 39% were female. A clinical history consistent with Zika virus infection was observed in the days prior to onset of neurological symptoms in 76% of the GBS cases in the state of Zulia. ... Zika virus infection was confirmed by polymerase chain reaction in three GBS cases, including a fatal case with no comorbidities. A total of three cases presenting with other neurological disorders were also biologically confirmed. [WHO](#)

F.D.A. issues Zika virus guidelines for blood supply

16 February - The Food and Drug Administration on Tuesday issued new guidelines for blood banks intended to help prevent the contamination of the nation's blood supply with the Zika virus. Among other measures, the agency called for blood banks in areas where the virus is transmitted locally — like Puerto Rico and the United States Virgin Islands — to import whole blood and red blood cells from regions without an outbreak instead of using local donations. There have been no reports of the Zika virus entering the United States' blood supply, but experts say it is likely that the infection can be transmitted via contaminated blood. Recently, two possible cases of transmission via blood transfusion were reported in Brazil. There is no F.D.A.-licensed test to screen blood donations for Zika virus. [The New York Times](#)

Genes, bugs and radiation: WHO backs new weapons in Zika fight

16 February - Countries battling the Zika virus should consider new ways to curb disease-carrying mosquitoes, including testing the release of genetically modified insects and bacteria that stop their eggs hatching, the World Health Organization said on Tuesday. The WHO also highlighted the potential of releasing sterile irradiated male mosquitoes, a technique that has been developed at the United Nations' International Atomic Energy Agency (IAEA). ... Fighting the infection at source by eliminating the *Aedes aegypti* mosquitoes responsible for transmission is moving up the public health agenda, especially as the same insects also spread dengue, chikungunya and yellow fever. However, the

concept of wiping out an entire mosquito species also raises serious ecological questions, since it runs counter to preserving biodiversity. [Reuters](#)

No additional Zika moves requested, Defense Department says

17 February - After one pregnant U.S. service member asked to be relocated from an area in South America affected by the Zika virus, the Defense Department hasn't received any additional requests, an official said. No more military family members, troops or Pentagon civilians have requested relocation or been ordered to move since officials made the initial offer early this month, according to Raymond Sarracino, a spokesman for U.S. Southern Command. [Military.com](#)

Study suggests Zika can cross placenta, adds to microcephaly link

17 February - In what experts describe as another piece of evidence linking Zika with the risk of birth defects, researchers on Wednesday reported finding the virus in the amniotic fluid of two pregnant women whose foetuses were diagnosed with microcephaly. ... [The] scientists said their finding suggests Zika virus can cross the placental barrier, but does not prove it causes microcephaly, a condition in which babies are born with abnormally small heads. More research is needed to understand the link, they said. [Reuters](#)

WHO gives overview of Zika impact; Brazil cites 300 more microcephaly cases

15 February - The World Health Organization (WHO) has started posting weekly situation updates on outbreaks of Zika virus and possible complications from the disease. ... The report provides a big-picture view Zika virus activity, which according to estimates has sickened 1.5 million so far in Brazil, followed by 25,000 suspected cases in Colombia, the next worst hit country. Columbia has confirmed 1,331 cases since October. The WHO added that Cape Verde has reported more than 7,000 suspected Zika virus cases. ... Five countries have reported rises in Guillain-Barre syndrome (GBS): Brazil, Colombia, El Salvador, Suriname, and Venezuela. However, the possible association with Zika seems less clear cut. ... In other developments, the health ministry on Feb 13 issued a statement countering an Argentine environmental group's charge that the larvicide pyriproxifen, used in some drinking water supplies, is a more likely microcephaly culprit than Zika virus. [CIDRAP](#)

Zika: UN health agency launches global response strategy; Member States briefed on outbreak

16 February – As World Health Organization officials briefed United Nations Member States in New York today on the Zika virus outbreak, the agency launched a global strategy to guide the international response to the spread of the virus and the neonatal malformations and neurological conditions associated with it. The [Strategic Response Framework and Joint](#)

[Operations Plan](#) focuses on mobilizing and coordinating partners, experts and resources to help countries enhance surveillance of the Zika virus and disorders that could be linked to it, improve vector control, effectively communicate risks, guidance and protection measures, provide medical care to those affected and fast-track research and development of vaccines, diagnostics and therapeutics. [UN News Centre](#)

Zika virus may hide in organs protected from the immune system

16 February - The Zika virus may be particularly adept at entrenching itself in parts of the body that are shielded from the immune system, making it harder to fight off and possibly lengthening the timeframe in which it can be transmitted, top U.S. experts said on Friday. Researchers reported that Zika virus can be detected in semen for 62 days after a person is infected, adding to evidence of the virus's presence in fetal brain tissue, placenta and amniotic fluid. ... "Right now, we know it's in the blood for a very limited period of time, measured in a week to at most 10 days. We know now, as we accumulate experience, it can be seen in the seminal fluid. We're not exactly sure after the infection clears, where else it would be," Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases said. [Reuters](#)

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INFLUENZA

AFHSB: DoD Seasonal Influenza Surveillance Summary

For Week 5:

- NORTHCOM: Influenza activity was low to moderate in the majority of states.
- EUCOM: Influenza activity was minimal to low in EUCOM.
- PACOM: Influenza activity decreased to low in Japan and the Republic of Korea.
- CENTCOM and AFRICOM: Influenza activity decreased in CENTCOM, but Afghanistan still had moderate activity and Egypt continued to have low activity.
- SOUTHCOM: Influenza activity in Honduras was minimal based on DMSS data.
[DHA -Armed Forces Health Surveillance Branch](#)

APHC: U.S. Army Influenza Activity Report

For the week ending 6 February 2015 (Week 5), influenza activity continues to increase throughout Army MTFs and the civilian population, predominately influenza A.

- ILI Activity: Army incident ILI outpatient visits in week 5 were 17% lower than the same

week last year.

- Influenza cases: Four hospitalized influenza cases were reported to APHC (Prov) through DRSi in week 5; 2 AD service members and 2 non-AD beneficiaries. Three of the cases had underlying conditions and 2 were not vaccinated.
- Viral specimens: During week 5, 175 of 993 (18%) laboratory specimens tested positive for respiratory pathogens. RHC-A reported 17 influenza A-positive specimens, RHC-C reported 14, RHC-P and RHC-E both reported 6, and CENTCOM reported 1. [APHC](#)

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

During week 5 (January 31-February 6, 2016), influenza activity increased slightly in the United States.

- Viral Surveillance: The most frequently identified influenza virus type reported by public health laboratories during week 5 was influenza A, with influenza A (H1N1)pdm09 viruses predominating. 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 below their system-specific epidemic threshold in both the NCHS Mortality Surveillance System and the 122 Cities Mortality Reporting System. [CDC](#)

ECDC: Flu News Europe

For Week 05/2016 (1–7 February 2016):

- Twenty-five of the 50 Member States that reported epidemiological data from surveillance for influenza-like illness (ILI) and acute respiratory infection (ARI) indicated increasing rates in week 05/2016; 38 countries reported influenza virus detections in specimens from sentinel sources, indicating increased influenza activity in the WHO European Region as a whole.
- Belarus, Greece and Ireland indicated high-intensity influenza activity; Finland, the Russian Federation and Ukraine reported very high activity, as in the previous week.
- A(H1N1)pdm09 viruses predominated, accounting for 87% of subtyped sentinel surveillance detections of influenza virus.
- An increase in cases of severe disease, mainly in people aged 15–64 years, was seen again this week, with most of them associated with A(H1N1)pdm09. [European Center for Disease Prevention and Control/WHO](#)

NHRC: Febrile Respiratory Illness Surveillance Update

For 2016 Week 6 (through 13 February 2016):

- Influenza: Three cases of NHRC laboratory-confirmed influenza (A/H1) among US military basic trainees.

- FRI surveillance at all eight U.S. military basic training centers indicated FRI rates were elevated at Fort Leonard Wood [Naval Health Research Center](#)

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

During 24 January - 6 February 2016 (Surveillance Weeks 4 & 5), a total of 278 specimens were collected and received from 49 locations. Results were finalized for 201 specimens from 46 locations. During Week 4, 17 influenza A(H1N1)pdm09, four A(H3N2), and six influenza B viruses were identified. Seven influenza A(H1N1)pdm09, one A(H3N2), one dual influenza coinfection, and three influenza B viruses were identified during Week 5.

[US Air Force School of Aerospace Medicine](#)

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VETERINARY/FOOD SAFETY

Fat cats on a diet: Will they still love you?

16 February - ... [A] new study in *The Journal of Veterinary Behavior* suggests that owners need not fear rejection if they restrict their cats' calories. After an eight-week diet, the cats actually demonstrated more affection after they were fed, their owners reported. ... In recent years, the epidemic of overweight and obese cats has alarmed veterinarians. ... For the study, 48 cats, each at least 25 percent over ideal weight, were put on one of three restricted diets, equal in calories. ... More than three-quarters of the cats lost weight. And though the frequency of pre-feeding behavior increased — begging, meowing, pacing — it did not begin earlier. ... Better yet, owners felt that despite the restricted feeding, the cats did not turn vindictive. Instead, owners believed the cats showed more affection. After feeding, the cats would more often purr and sit in the owner's lap. [The New York Times](#)

Inverse trends of *Campylobacter* and *Salmonella* in Swiss surveillance data, 1988–2013

11 February - Clinical isolates of *Campylobacter* spp. and *Salmonella* spp. are notifiable in Switzerland. In 1995, *Campylobacter* replaced *Salmonella* as the most frequently reported food-borne pathogen. We analysed notification data (1988–2013) for these two bacterial, gastrointestinal pathogens of public health importance in Switzerland. Notification rates were calculated using data for the average resident population. Between 1988 and 2013, notified campylobacteriosis cases doubled from 3,127 to 7,499, while *Salmonella* case notifications decreased, from 4,291 to 1,267. Case notifications for both pathogens peaked during summer months. [Eurosurveillance](#)

Troops betrayed as Army dumps hundreds of heroic war dogs

14 February - ... In September 2012, Daniel and about 18 other soldiers boarded a flight back to North Carolina; their deployment was over. Waiting on the tarmac were employees from a North Carolina-based company, K2 Solutions, which had the government contract for the dogs. Within moments of deplaning, the handlers got to pat their dogs on the head, say their goodbyes, then watch as the dogs — and all their equipment, down to their shredded leashes — were boarded on a truck and driven away. ... The only solace these soldiers had was the knowledge that they could apply to adopt their dogs, and that the passage of Robby's Law in November 2000 would protect that right. ... Daniel ... is one of at least 200 military handlers whose dogs were secretly dumped out to civilians by K2 Solutions in February 2014. ... At least three government workers were also involved and may have taken dogs for themselves. [New York Post](#)

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WELLNESS

Adderall misuse rising among young adults

16 February - While the number of prescriptions for the stimulant Adderall has remained unchanged among young adults, misuse and emergency room visits related to the drug have risen dramatically in this group, new ... research suggests. Anecdotal evidence had suggested the most severe problem of Adderall misuse was among older children and adolescents, but the new research ... finds otherwise. The study examined trends from 2006 through 2011 and found that it is mainly 18-to-25-year-olds who are inappropriately taking Adderall without a prescription, primarily getting the medication from family and friends and without a physician recommendation or prescription.

[Johns Hopkins Bloomberg School of Public Health News](#)

Disparity in life spans of the rich and the poor is growing

12 February - ... Despite big advances in medicine, technology and education, the longevity gap between high-income and low-income Americans has been widening sharply. ... In the early 1970s, a 60-year-old man in the top half of the earnings ladder could expect to live 1.2 years longer than a man of the same age in the bottom half, according to an analysis by the Social Security Administration. Fast-forward to 2001, and he could expect to live 5.8 years longer than his poorer counterpart. New research released on Friday contains even more jarring numbers. Looking at the extreme ends of the income spectrum, economists at the Brookings Institution found that for men born in 1920, there was a six-year difference in life expectancy between the top 10 percent of earners and the bottom 10 percent. For men

born in 1950, that difference had more than doubled, to 14 years. For women, the gap grew to 13 years, from 4.7 years. ... The causes are still being investigated, but public health researchers say that deep declines in smoking among the affluent and educated may partly explain the difference. [The New York Times](#)

FDA likely underestimated fetal deaths from Essure

18 February – The U.S. Food and Drug Administration may have greatly underestimated the number of fetal deaths among women who became pregnant after using Bayer AG's Essure contraceptive device, according to a private analyst who combed through the agency's public database. The FDA has cited five fetal deaths in women who became pregnant after using Essure, two metal coils inserted into the fallopian tubes. ... Madris Tomes, founder and chief executive officer of Device Events, said her analysis of thousands of adverse events from the agency's website shows 303 fetal deaths were linked to Essure. The agency is expected this month to decide whether to restrict use of the device, change the product's label or recommend additional clinical trials. [Reuters](#)

Getting people to exercise requires the right incentive

15 February - People will exercise more if you give them money — but only if they are paid in the right way. For a 13-week study, researchers randomly assigned 281 people to one of four groups. The goal for each person was to achieve 7,000 steps a day, recorded on a smartphone accelerometer. Those in the first group got \$1.40 for each day they reached the goal. In the second group, the reward for success was entry into a lottery with a possible payoff of \$100. Those in the third were given \$42 the first day of every month, deposited in an online account, and had \$1.40 automatically deducted each day they failed to achieve 7,000 steps. A control group received only daily feedback about their performance. ... The control group achieved their goal 30 percent of the time, and the lottery and paid-every-day groups performed statistically no better, at 35 percent. But the group paid upfront, risking a loss every day, succeeded 45 percent of the time. [The New York Times](#)

Iron supplements may damage DNA within 10 minutes

15 February - Scientists from Imperial College London found that concentrations of iron, just like those given in standard treatments for iron deficiency, may cause DNA damage within 10 minutes after coming in contact with the body's cells. In the study published in the journal PLOS ONE, the researchers used human endothelial cells that are found in the linings of blood vessels. They added an iron solution of 10 micromolar, which is similar to the concentration in the blood after consuming one iron tablet. The researchers found that the endothelial cells treated with the iron solution activated DNA repair systems within 10 minutes, which implies that the DNA became damaged in some way. ... Though the results of the study are significant, Shovlin reiterates that the study is an early observation at a laboratory setting. She notes that more research is needed to fully understand the effects of iron on the body. [Tech Times](#)

Nutritional powder recall expands after more *Salmonella* cases in 9 states

16 February - Garden of Life, LLC, has expanded its recall of RAW Meal Organic Shake and Meal Replacement products as more cases of *Salmonella* Virchow linked with moringa powder used in the products were reported over past weeks, according to a Feb 12 Food and Drug Administration (FDA) update. *Salmonella* cases linked to the nutritional products have been reported in 11 people in nine states. ... On Feb 12, Garden of Life expanded its initial Jan 29 recall to include 31 products. The recall affects RAW Meal organic shake powders in original, chocolate, vanilla, and vanilla chai flavors.

[CIDRAP News Scan](#) (fourth item)

Organic meat and milk higher in healthful fatty acids

15 February - Organic meat and milk differ markedly from their conventionally produced counterparts in measures of certain nutrients, a review of scientific studies reported on Tuesday. In particular, levels of omega-3 fatty acids, beneficial for lowering the risk of heart disease, were 50 percent higher in the organic versions. ... However, the question of whether these differences are likely to translate to better health in people who eat organic meat and drink organic milk is sharply disputed. ... The higher levels of omega-3, a type of polyunsaturated fat, arise ... from a requirement that animals raised organically spend time outside. Organic milk and beef come from cattle that graze on grass, while most conventional milk and beef come from cows subsisting on grain. [The New York Times](#)

Prevalence of healthy sleep duration among adults — United States, 2014

19 February - ... The first state-specific estimates of the prevalence of a ≥ 7 hour sleep duration in a 24-hour period show geographic clustering of lower prevalence estimates for this duration of sleep in the southeastern United States and in states along the Appalachian Mountains, which are regions with the highest burdens of obesity and other chronic conditions. Non-Hispanic black, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander, and multiracial populations report a lower prevalence of ≥ 7 hours sleep compared with the rest of the U.S. adult population. [Morbidity and Mortality Weekly Report](#)

Transgender patients face challenges at the hospital

16 February - ... According to a 2010 report by Lambda Legal, 70 percent of transgender respondents had experienced serious discrimination in health care. And a 2011 study of more than 6,000 transgender people by the National Center for Transgender Equality and the National LGBTQ Task Force found that 19 percent said they had been denied health care because of their transgender or gender nonconforming status. Many of them avoided the doctor's office altogether: 28 percent had postponed getting health care when they were ill or injured, and 33 percent had delayed or not sought preventive care because of their past experiences with doctors. A 2014 report by the HRC Foundation found that out of 501

hospitals researched, 49 percent did not include both "sexual orientation" and "gender identity" in their patient nondiscrimination policies. Hospitals, for their part, are often flummoxed. Where, for example, should they put a patient who identifies as female, but is anatomically still male or listed that way on their birth certificate? ... "The first time you think about where you are going to put a transgender patient should not be when they arrive."

[The New York Times](#)

Virtual therapy 'helps with depression', researchers say

15 February - A new therapy which involves a patient embodying themselves in a virtual reality avatar of a crying child could help with depression, research has suggested. ... Firstly, the patients - 10 of whom were female and the rest male - put on a headset which projected an adult version of themselves into a virtual reality mirror. The patient was asked to mentally identify with the adult avatar. ... They then noticed a separate avatar of a small crying child, who was also in the mirror. They were told to say compassionate phrases to the child to try and comfort and console it. ... At this stage of the experiment the roles were then reversed. The scientists altered the headset and the patient was then embodied into the avatar of the child. ... The participants then heard the same phrases of compassion spoken back to them from the adult avatar in the person's own voice. ... Of the 15 patients, aged between 23-61, nine recorded reduced levels of depression one month after the trial.

[BBC News](#)

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USAFRICOM

Angola: Deadly yellow fever epidemic flares up in Angola

16 February - A yellow fever outbreak in Angola has killed 51 people, in the first epidemic of the disease to hit the country in 30 years, official statistics showed on Monday. A total of 241 people were now infected, the southern African country's national director of public health, Adelaide de Carvalho, said. More than 450,000 people had been vaccinated in the capital of a target of nearly 1.6 million, she added. The centre of the outbreak is the capital Luanda's eastern suburb of Viana, where 29 deaths and 92 cases have been reported over the past six weeks, she said. [Al Jazeera](#)

Central African Republic: UN - New sex abuse claims in Central African Republic

15 February - The United Nations said Monday it is investigating new allegations of sexual abuse and exploitation by U.N. peacekeepers in Central African Republic, including against minors. U.N. deputy spokesman Farhan Haq said details will be announced after an initial probe is completed. The United Nations has been unable to explain why so many rapes and

other sexual abuse by peacekeepers have been alleged in Central African Republic. ... Late last month, U.N. Assistant Secretary-General Anthony Banbury said there likely were 22 confirmed allegations of sexual abuse or exploitation in the U.N. peacekeeping mission in Central African Republic in 2015, but the figure could be higher with recent allegations. [AP](#)

Southern Africa: El Nino devastating harvests, aid agencies say

12 February - ... The United Nations says 14 million people across southern Africa do not know where their next meals are coming from. It says 2.5 million people are in crisis and require urgent humanitarian assistance. The region is in the grip of an intense drought, driven by one of the strongest El Nino climate events of the last 50 years. El Nino produces extreme drought and acute water shortages in some parts of the world and heavy rainfall and flooding in others. Lack of rain across southern Africa has caused long delays in planting and has resulted in widespread crop failure. World Food Program spokeswoman Bettina Luescher told VOA that people have struggled to cope with the losses. [VOA](#)

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USCENTCOM

Afghanistan: Tasked with combating opium, Afghan officials profit from it



15 February - The United States spent more than \$7 billion in the past 14 years to fight the runaway poppy production that has made Afghan opium the world's biggest brand. ... But here in one of the few corners of Helmand Province that is peaceful and in firm government control, the green stalks and swollen bulbs of opium were growing thick and high within eyeshot of official buildings during the past poppy season — signs of a local narco-state administered directly by government officials. ... Governments across the region are struggling with the health and security problems brought by the increased opium flow. [The New York Times](#)

Iraq: Samples confirm Islamic State used mustard gas in Iraq – diplomat

15 February - Islamic State militants attacked Kurdish forces in Iraq with mustard gas last year, in the first known use of chemical weapons in Iraq since the fall of Saddam Hussein, a diplomat said, after tests by the global chemical arms watchdog. A source at the Organization for the Prohibition of Chemical Weapons (OPCW) confirmed that laboratory

tests had come back positive for the sulfur mustard, after around 35 Kurdish troops were sickened on the battlefield last August. The OPCW will not identify who used the chemical agent. But the diplomat, speaking on condition of anonymity because the findings have not yet been released, said the result confirmed that chemical weapons had been used by Islamic State fighters. [Reuters](#)

Pakistan: Despite threats, thousands join anti-polio drive in Pakistan, a last bastion of the disease

15 February - More than 100,000 health workers fanned out across Pakistan on Monday, stepping up a drive to eliminate the polio virus this year from one of its last bastions, despite continuing militant threats to vaccination teams. ... Pakistan's polio cases are declining, with just 54 cases of wild polio virus reported last year, down more than 80 percent from 2014, when the country suffered a large spike in cases. The latest immunization push aims to finish vaccinating every child in the country by the end of May. [Reuters](#)

Pakistan: Pakistan reports 1st WPV case of 2016

13 February - The news concerning worldwide polio has been quiet during the first several weeks of 2016; however, the first wild poliovirus type 1 (WPV1) and circulating vaccine-derived poliovirus type 1 (cVDPV1) were reported this week by the Global Polio Eradication Initiative (GPEI). Pakistan reported the first wild poliovirus type 1 (WPV1) of 2016 with onset of paralysis in Karachi Gadap, Sindh on 17 January 2016. The total number of WPV1 cases in Pakistan for 2016 is now 1, compared to 7 reported for 2015 at this point last year. In Afghanistan, an additional WPV1 case was reported this past week with onset of paralysis in Shahwalikot, Kandahar, on 20 December 2015. That brings Afghanistan's WPV total for last year to 20. [Outbreak News Today](#)

Saudi Arabia: Two fatal MERS cases in Al-Kharj

16 February - Saudi Arabia today reported two fatal MERS-CoV cases in elderly men in the same city, Al-Kharj in the central part of the country, where two other cases were reported in recent weeks. The two latest victims were 75 and 80 years old and were not healthcare workers, the Saudi Ministry of Health (MOH) said. The younger man had contact with camels, but the older one did not, and the source of his infection is under investigation. With the two deaths, Saudi Arabia has had three fatal MERS cases this month; the previous one involved a 34-year-old man in the southern city of Najran. [CIDRAP News Scan](#) (first item)

Syria health care has collapsed following attacks on hospitals, MSF says

18 February - Health care in Syria has collapsed because of attacks on hospitals in the country, the international organization Doctors Without Borders said after fresh deadly

bombings of hospitals this week. ... On Monday, airstrikes in northern Syria hit two hospitals and a school, killing at least 25 people, according to reports. ... Also struck in Azaz was a school housing displaced people. The other hospital that was hit was about 60 miles (100 kilometers) away, in Maarat al-Numan in Idlib province. Missiles struck that hospital four times in a matter of minutes, MSF said. [CNN](#)

Yemen: UN warns of famine in besieged Yemeni city

15 February - The U.N. is warning of famine in the Yemeni city of Taiz, which has been besieged by Shiite Houthi rebels for months. The World Food Programme said Monday that Taiz "is in the grip of severe food insecurity at 'Emergency' level - one step below famine." The U.N. agency says it delivered enough aid to part of the city on Saturday to support 3,000 families for one month. [ABC News](#)

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USEUCOM

European Union forms emergency medical corps

15 February - The European Commission (EC) announced the establishment today of a European Medical Corps, which will provide rapid-response medical and public health expertise and equipment during an emergency. The European Medical Corps is a voluntary program operating under the auspices of the European Emergency Response Capacity (EERC), the EC said in a press release. Currently, nine European Union (EU) member states (Belgium, Luxembourg, Spain, Germany, Czech Republic, France, the Netherlands, Finland, and Sweden) have pledged teams and supplies to the effort.

[CIDRAP News Scan](#) (fourth item)

United Kingdom: Is mental health care being neglected?

15 February - Mental health care is so poor in England that people's lives are being ruined. That's the message from a review set up by the National Health Service, or NHS. The report reveals how mentally ill people have failed to get the right help at the time they need it. One in four people in the UK experience mental health problems every year. But the taskforce set up to look into the state of mental health care says three quarters of people who need treatment aren't receiving any help. Mental health problems include anxiety, depression and eating disorders. And health workers are saying the failure to properly treat them is having a human and financial cost. (Video) [Al Jazeera](#)

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Canada: Fluoride cessation has had a negative impact on children's health according to research



17 February - A newly published study compared Grade 2 students in both Edmonton and Calgary, and found that fluoride cessation in Calgary has had a negative impact on children's health. In primary teeth, known more commonly as baby teeth, there was a worsening in tooth decay in Calgary since the discontinuation of fluoridation in 2011, as compared to Edmonton, where water is still fluoridated. In fact, the number of tooth surfaces with decay per child increased by 3.8 surfaces in Calgary during the time frame of the study, as compared to only 2.1 in Edmonton. This is a statistically significant difference.

[Outbreak News Today](#)

U.S. agencies to study safety of artificial turf fields

12 February - Three U.S. government agencies will team up to study whether artificial turf fields and playgrounds that use bits of recycled tires are exposing children to dangerous chemicals. The Environmental Protection Agency, the Consumer Product Safety Commission and the Centers for Disease Control and Prevention announced on Friday they will study the issue, CPSC Chairman Elliot Kaye said in a statement. "I am very pleased that we are joining forces to investigate crumb rubber, as millions of children are exposed to it on playground surfaces and as infill on playing fields," he said. Limited studies have not shown an elevated health risk from playing on fields with the bits of recycled tires, known as tire crumb, but more comprehensive research is needed, EPA said in a news release. [Reuters](#)

U.S.: Teen suicide epidemic in Palo Alto prompts CDC investigation

17 February - The rate of teens committing suicide in Palo Alto, California has prompted the Centers for Disease Control and Prevention (CDC) to conduct investigations. ... From 2009 to 2010, Palo Alto witnessed six teens succumb to death due to suicide. Four more teens did the same between the short period of October 2014 to March 2015. ... In an interview conducted during school year 2013 to 2014, 12 percent of students admitted that they have seriously considered killing themselves in the past year. In Henry M. Gunn High School alone, 42 students have been admitted in the hospital from the beginning of the school year through March – all due to major suicide ideation. All in all, the combined suicide rates in the two Palo Alto high schools are four times higher than the average national rates.

[Tech Times](#)

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China: Hong Kong hospital reports cluster of multi-drug resistant Acinetobacter

18 February - ... Today, a spokesperson for the [North District Hospital] made the following announcement: Four patients (aged 86 to 98) of a female medical ward have been confirmed as having Multi-drug Resistant Acinetobacter (MDRA) since February 6. One of them is an infected case and the remaining three are MDRA carriers without clinical symptoms. All patients are still hospitalised under medical surveillance and isolation with stable condition. [Outbreak News Today](#)

China to consolidate drug market, promote traditional medicines

14 February - China plans to consolidate its huge and fragmented drug market and will support a greater role for traditional Chinese medicines (TCM), the central government said in a statement on Sunday following a meeting of the State Council. China will also strengthen safety controls and traceability of domestic drugs, the statement said, part of an ambitious program of healthcare reforms to improve home-made medicines and reduce reliance on generic and more innovative drugs from overseas. [Reuters](#)

India: India drug monitoring programme struggles to grow fast enough

15 February - ... India's six-year-old pharmacovigilance programme, which collects and submits suspected adverse drug reactions to a World Health Organisation (WHO) database, is key to improving drug safety in a country where medicine consumption is high, experts say. But insufficient staff and equipment, and a lack of awareness among medical professionals mean many potentially dangerous drug reactions go unrecorded, hospital personnel across India told Reuters. Gaps in the system mean the government has less data to determine whether drugs might have harmful side effects. Also, relatively little information flows from one of the world's largest pharmaceutical markets to the WHO database of over 12 million suspected adverse drug reactions. ... Last year, India contributed 2 percent of the 2.1 million suspected reactions added to VigiBase, the WHO's global database. China, with a comparable population, contributed 8 percent. [Reuters](#)

Laos: Laos sees two additional vaccine-derived poliovirus cases

13 February - ... [The] first ... circulating vaccine-derived poliovirus type 1 (cVDPV1) [of the year] was reported this week by the Global Polio Eradication Initiative (GPEI). The Lao People's Democratic Republic saw seven cases of circulating vaccine-derived poliovirus type

1 (cVDPV1) in 2015, the first indigenous cases reported in Laos since 1993. This week, the GPEI reports two new cases of cVDPV1 were reported in the past week, in Phonhong and Fueng, Vientiane, with onset of paralysis on 8 January and 11 January 2016 respectively.

[Outbreak News Today](#)

Thailand: All 77 provinces report dengue cases, Phuket sees a rise in dengue

16 February - The number of dengue fever cases in Thailand increased by another 848 cases during the past week, bringing the country total to 7515 cases from all 77 provinces. The death toll remains at one to date. Officials from the Phuket Provincial Health Office (PPHO) are reporting a tripling in dengue cases since the beginning of the year as compared to the same period last year. "The number of people in Phuket contracting dengue is rising, and it's serious," according to Dr Bancha Khakong, Chief of the PPHO. [Outbreak News Today](#)

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USSOUTHCOM

PAHO notes more than 8,000 new chikungunya cases

15 February - The Pan American Health Organization (PAHO) late last week added 8,279 new chikungunya cases to its list, bringing the 2016 outbreak total to 14,700 confirmed and suspected cases. The new infections, reported on Feb 12, bring the overall outbreak total to 1,860,082 chikungunya cases. ... Two countries reporting their first cases of the year had the largest increase: Honduras with 3,348 cases, and El Salvador with 2,881. Colombia reported 1,385 new cases, bringing its 2016 total to 4,563. Costa Rica noted 628 new cases, its first in 2016. Mexico logged 30 new cases, increasing its 2016 total to 49. No chikungunya-related deaths have yet been reported for 2016.

[CIDRAP News Scan](#) (second item)

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The *Army Public Health Weekly Update* is published by the Public Health Information Directorate, Army Public Health Center.

