

22 July 2016

Army Public Health Weekly Update

Army Public Health Center

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Notice:

The Army Public Health Weekly Update will not be issued next week. Publication will resume on 5 August 2016.

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- NHRC: Febrile Respiratory Illness Surveillance Update

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- U.S.: Outbreak sparks nationwide public health alert and hog recall

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USAFRICOM

- Angola/Democratic Republic of Congo: WHO: 73 more yellow fever cases in Angola, 491 more in DRC
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- South Sudan: 11 dead in suspected South Sudan cholera outbreak
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- Pakistan: Cutaneous leishmaniasis outbreak infects scores in northwestern Pakistan
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- Europe: Standardised surveillance of *Clostridium difficile* infection in European acute care hospitals - a pilot study, 2013
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USNORTHCOM

- Canada: Saskatchewan: Rabies cases double in 2016
- U.S.: Fracking linked to asthma flare-ups
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- U.S.: Worrisome resistant bacteria found in Florida sewage

Army Vector-borne Disease Report

West Nile Virus: 20 neuroinvasive cases have been reported by the CDC in 2016, less than half the number of cases (51) reported by the same time of year in 2015. No confirmed or probable cases have been reported in Army AD Service Members and beneficiaries.

PHC-Atlantic: 565 mosquitoes were tested for chikungunya, dengue, and Zika virus; none were positive for any of these pathogens.



USPACOM

- Australia: Increases in shigellosis reported in NSW gay men
- Hong Kong: Hong Kong investigates 9th suspected iatrogenic botulism case

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- Venezuela: UN rights chief airs worry about food shortages in Venezuela

U.S. MILITARY

Amid police shootings, Army 'serious' about tackling anger among combat vets

18 July - This month's shooting deaths of police in Baton Rouge, La., and Dallas by former servicemembers who saw combat in Iraq and Afghanistan comes as the Army is trying to better understand why up to 40 percent of troops return from war struggling with anger and aggression. ... Whether there is a link between their military service and the shootings is unknown. And military researchers have been studying the issue of anger for almost a decade. Since 2007, a series of studies have shown 14 percent to 40 percent of troops surveyed after returning from war or while in the war zone report signs of anger such as kicking, smashing or throwing things, or threatening someone with physical violence. Anywhere from 4% to 18% were getting into fights. [USA Today](#)

Army needs to improve oversight of Warrior Transition Units

July 2016 - ... [A GAO report has found that the] Army has not assessed the effectiveness of the Triad of Care model, the core structure of the WTU program and consisting of a team of three key staff that provide medical case management. The Army designed the Triad of Care model at a time when WTU soldiers' diagnoses were primarily for physical conditions. However, since then, the composition of diagnoses has changed significantly. Despite this change, the Army has not assessed its approach for managing soldiers' medical care. The five WTUs we visited reported having taken ad-hoc measures to help meet the increase in behavioral health needs in the absence of such an assessment. For example, medical officials at each of the five WTUs that we visited told us that they include social workers as a fourth member of the Triad of Care staff.

The Army has established selection processes and updated its selection criteria to require additional information about potential squad leaders and platoon sergeants for its WTUs, but the Army is not monitoring full adherence to policy, specifically the requirement to interview candidates for these positions. Further, while the Army had made improvements to its training program, the program does not incorporate a post-training assessment on the application of training to the work environment. [GAO](#)

Army Industrial Hygiene News and Regulatory Summary

The June issue features articles on eggshells, earbuds, aging spines, flood safety, and lightning.



Senators want to help troops with PTSD appeal bad discharges

19 July - A bipartisan group of senators on Tuesday sought to revive a proposal to make it easier for veterans to upgrade "bad paper" discharges wrongly handed down for behavior resulting from PTSD or sexual trauma. ... "The need for this liberal consideration standard remains all too clear as the number of returning Post-9/11 veterans continues to increase," the letter said. The letter cited an estimate suggesting that discharges for misconduct are 11 times more likely after a PTSD diagnosis. The proposed amendment would also apply to former service members who were diagnosed with personality disorders and discharged from the military as a result of trauma from sexual assaults. ... The letter said, "A less than honorable discharge, or bad paper discharge, is often given for instances of minor misconduct such as being late to formation and missing appointments -- behavior often seen in those suffering from PTSD, TBI, and other trauma-related conditions." Discharges less than honorable, such as general discharges or bad-conduct discharges, make service members ineligible for benefits such as GI Bill education benefits and Veterans Affairs home loans. Military.com

Sleep disorders on steep rise among U.S. veterans, study says

15 July - A sharply increasing number of veterans of the U.S. Armed Forces have developed sleep problems, with researchers tying a large portion of the jump to the also rising prevalence of post-traumatic stress disorder. Researchers at the University of South Carolina found the number of veterans with sleep disorders went up six-fold during the last decade, while PTSD has become three times as common during the same time. ... For the study, researchers analyzed medical data on all 9.78 million veterans who sought healthcare from the Veterans Health Administration between 2000 and 2010, of whom 93 percent were men and 751,502 were diagnosed with a sleep disorder. The most common sleep disorders diagnosed were sleep apnea and insomnia, which made up 47 percent and 26 percent of all diagnoses. ... During the decade, which included the wars in Afghanistan and Iraq, researchers reported PTSD diagnoses tripled and were linked to 16 percent of sleep disorders -- the most common condition linked to a sleep disorder among the veterans. UPI

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GLOBAL

Antibodies from survivors of filovirus infection may offer protection against other filoviral diseases

13 July - ... [The] recent Ebola epidemic ... underscored the need to develop vaccines and

**CDC
Recommendations
for Nonopioid
Treatments in the
Management of
Chronic Pain**

Between 1999 and 2014, nonopioid treatments for chronic pain were used less frequently while the amount of opioids prescribed in the U.S. quadrupled.

The CDC Guideline for Prescribing Opioids for Chronic Pain provides recommendations for safer and more effective prescribing of opioids for chronic pain inpatients 18 years of age and older in outpatient settings.

Date: July 27, 2016

Time: 2:00 - 3:00 pm ET

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therapeutics that could be used to fight future disease outbreaks. Now new research suggests that antibodies to filoviruses from individuals who have survived these diseases may offer protection--not only against the particular filovirus that infected an individual, but against other filoviruses, as well. In their study, the researchers tested serum antibodies collected from survivors between one and 14 years after three separate and well-documented outbreaks, said corresponding author Mohan Natesan, Ph.D. [of the] Army Medical Research Institute of Infectious Diseases, Fort Detrick, MD. They found that antibodies from the various filoviruses present substantial cross-reactivity--that is, antibodies from one filovirus reacted to other filoviruses--for up to 14 years after primary infection. [News-Medical](#)

Bill Gates views good data as key to global health

1 August - With an endowment of \$40 billion (give or take), the Bill & Melinda Gates Foundation has the financial heft to make dramatic changes in hundreds of millions of people's lives around the world. But how does the organization decide which causes and institutions to fund? Bill Gates, its co-founder and co-chair, has a well-established knack for sifting through complex data sets to find the right pathways for making progress around the globe in health, education and economic development. Scientific American contributing editor W. Wayt Gibbs sat down with Gates to learn more about how he views the world. ... An edited transcript of the full-length interview follows. [Scientific American](#)

Bionic arm: A pioneering union between man and machine



18 July - ... [A] team of scientists in Gothenburg have been working on a cutting-edge bionic limb that could transform the field of prosthetics. Lead professor, Dr Rickard Branemark, and team leader Max Ortiz Catalan, have developed a new way to attach prosthetics. The new technology involves a titanium implant being

surgically inserted into the bone in a process known as osseointegration. Electrodes are then implanted straight into the remaining arm muscles and nerves. The prosthesis is then controlled by the patient's thoughts. On top of that, Max Ortiz and his team have also developed a way to send signals the other way from the arm to the brain. This allows those using the prosthesis to receive sensation from their hand, which gives them far more control over what they are holding and feeling. This is one of the most cutting-edge prosthetic advancements in the world today. [Al Jazeera](#)

Chicken odour 'prevents malaria' research in Ethiopia finds

21 July - The smell from a live chicken could help protect against malaria, researchers have found. Ethiopian and Swedish scientists discovered that malarial mosquitoes tend to avoid

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Look under Hot Topics & Current Issues.

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chickens and other birds. The experiments, conducted in western Ethiopia, included suspending a live chicken in a cage near a volunteer sleeping under a bed net. ... The scientists, whose research was published in the *Malaria Journal*, concluded that as mosquitoes use their sense of smell to locate an animal they can bite there must be something in a chicken's odour that puts the insects off. Addis Ababa University's Habtie Tekie, who worked on the research, said that the compounds from the smell of the chicken can be extracted and could work as a repellent. [BBC News](#)

Chlamydia vaccine 'shows promise'

20 July - Canadian scientists have developed a promising vaccine prototype against chlamydia, a study in mice suggests. Research, published in the journal *Vaccine*, shows that mice given the immunisation are more likely to fight off the infection. ... A team of researchers at McMaster University in Ontario gave mice two doses of the prototype vaccine, delivered through the nose. When the animals were later exposed to chlamydia, vaccinated mice had fewer copies of the bacteria replicating in their systems. Mice in the vaccinated group also had fewer signs of damage to their reproductive organs. [BBC News](#)

Close contact, caregiving fueled MERS spread in large family cluster

18 July - A detailed investigation of a large family cluster of MERS in Saudi Arabia revealed that those who got sick were more likely to be older and male and have underlying health conditions, and that people who slept in infected patients' rooms and touched their respiratory secretions were more likely to become ill. ... The researchers found that transmission didn't seem to be linked simply to proximity, but close contact and direct patient care did emerge as risk factors. Only three of the patients were women, all of them wives of sick individuals. The investigators said the low number of infected women might reflect biologic or behavioral differences, such as women socializing separately.

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

Estimates of global, regional, and national incidence, prevalence, and mortality of HIV, 1980–2015: the Global Burden of Disease Study 2015

19 July - ... Annual incidence has stayed relatively constant at about 2.6 million per year (range 2.5–2.8 million) since 2005, after a period of fast decline between 1997 and 2005. The number of people living with HIV/AIDS has been steadily increasing and reached 38.8 million (95% UI 37.6–40.4 million) in 2015. At the same time, HIV/AIDS mortality has been declining at a steady pace, from a peak of 1.8 million deaths (95% UI 1.7–1.9 million) in 2005, to 1.2 million deaths (1.1–1.3 million) in 2015. ... Although many countries have experienced decreases in HIV/AIDS mortality and in annual new infections, other countries have had slowdowns or increases in rates of change in annual new infections. ... Scale-up of ART and prevention of mother-to-child transmission has been one of the great successes of

global health in the past two decades. However, in the past decade, progress in reducing new infections has been slow, development assistance for health devoted to HIV has stagnated, and resources for health in low-income countries have grown slowly. [The Lancet](#)

Gut bacteria may drive inflammation in sepsis, ARDS

20 July - Bacteria that live in the gut also show up in the lungs of critically ill patients with acute respiratory distress syndrome (ARDS) and in a mouse model of sepsis, suggesting a shared mechanism of pathogenesis for the two deadly diseases. Bacterial gene sequencing was used to identify the gut bacteria which are not detectable using conventional culture. Greater concentrations of gut bacteria in bronchoalveolar lavage fluid from patients with ARDS were associated with greater inflammation, wrote [researchers]. [MedPage Today](#)

Human hearing loss could be reversible

19 July - After a songbird loses its hearing due to physical trauma or loud noise, the sensory hair cells in its inner ear regenerate naturally. ... In the lower vertebrates like fish and birds, those new hair cells arise from the supporting cells of the cochlea's lining. Now, for the first time, scientists are developing methods that could do the same for humans. ... Dutch company Audion Therapeutics ... is working on a proof of concept for regeneration of human-ear hair cells. ... Meanwhile, this year in Farmington, Connecticut, start-up Frequency Therapeutics' patent filings indicate they have been developing ways to induce supporting cells to multiply, then become hair cells, using a notch inhibitor. The procedure would involve releasing the drug locally, perhaps as a foam or using a tube in the tympanic membrane to send doses into the middle ear. ... It is anyone's guess how many years or, indeed, decades it will be before hearing-loss patients can benefit from these discoveries.

[The Atlantic](#)

Little-used malaria drug combo gets another look

18 July - Health officials might need to reconsider malaria treatment priorities in Africa after a new study showed that an overlooked drug combination is effective and well-tolerated in young African children. ... The researchers compared the commonly administered artemether-lumefantrine with the little-used artesunate-mefloquine option. Both are artemisinin-based combination therapy (ACT) formulations, which have gained popularity in the last 10 years as they offer a one-two punch against *Plasmodium falciparum* infection and fight off artemisinin resistance. Though mefloquine is an established anti-malarial drug, it has a bad reputation for being hard to tolerate and causing vomiting. The new study suggests that it was effective in treating malaria in preschool-age children and caused no more side effects than standard treatments. [CIDRAP](#)

Psychotherapy helps people tune out the din of tinnitus

21 July - ... Doctors writing Thursday in the journal *JAMA Otolaryngology-Head & Neck Surgery* found that about 1 in 10 U.S. adults reported experiencing tinnitus within the past year. ... According to the U.S. Department of Veterans Affairs, more than a million veterans

get disability payments for tinnitus. For a lot of people, tinnitus is minor enough that they don't consider it a problem. But in cases where the sensation is intolerable, it's connected with anxiety, depression and lower quality of life. Lin says one way to counteract it is to get hearing aids, so that the brain stops trying to compensate for the silence. The other thing known to help with tinnitus ... [is] psychotherapy. "Cognitive behavioral therapy is widely accepted and promoted by our national professional society, but very few people know about it," says Lin. "It's about converting the way in which you think about tinnitus from negative emotions and trains of thought to more positive trains of thought." [NPR](#)

Research suggests new avenues for attacking ALS

15 July - ... [Researchers] have found evidence that bone marrow transplantation may one day be beneficial to a subset of patients suffering from amyotrophic lateral sclerosis (ALS), a fatal neurodegenerative disorder more commonly known as Lou Gehrig's disease. ... The mouse-model study, published this week in *Science Translational Medicine*, suggests the most common genetic mutation associated with ALS plays an important role in not only the nervous system, but also the blood and immune systems. ... The scientists found that mice without a functional copy of the gene C9ORF72 had abnormally large spleens, livers, and lymph nodes, and got sick and died. Mice with one working copy experienced similar but less severe changes. ... Knockout mice that received a bone marrow transplant lived on average 43 days longer, weighed more, and had a greater number of blood platelets throughout their lifespan. [Harvard Gazette](#)

Sanofi study finds dengue vaccine reduces asymptomatic infections in kids

15 July - Sanofi Pasteur's tetravalent (four-strain) dengue vaccine reduces asymptomatic dengue infections in children 2 to 16 years old by about a third, which should help limit dengue transmission, according to a study by Sanofi researchers. The authors ... estimated 80% of all dengue infections are asymptomatic and that those who have such infections may serve as an important source of dengue transmission to mosquitoes and secondarily to humans. The researchers used data from two phase 3 trials of the Dengvaxia vaccine that were conducted in Asia and Latin America. The data came from 3,736 participants who received three doses of either the vaccine or a placebo at 6-month intervals.

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

Study: Ebola virus in spinal fluid may explain neurologic changes

15 July - Ebola virus (EBOV) was found in the cerebrospinal fluid (CSF) of three patients in Guinea during the recent epidemic there, which may help explain the neurologic signs that have sometimes been observed in Ebola patients. ... After noticing clinical signs of encephalitis in some Ebola patients at the Conakry EBOV Disease Treatment Centre in Guinea, the authors performed lumbar punctures on three of them. ... The neurologic signs in all three patients improved by the third week of illness, and all three eventually were

discharged. The researchers said the patients' behavior changes and inappropriate attitudes were not accompanied by blood electrolyte imbalances, organ failure, sepsis, or any cause of metabolic encephalopathy. But it remains unclear, they added, whether the association of Ebola virus in the CSF with neurologic signs is sufficient to define a specific Ebola virus encephalitis. [CIDRAP News Scan](#) (second item)

The relationship between sustained gripping and the development of carpal tunnel syndrome

July 2016 - ... Cases of [carpal tunnel syndrome (CTS)] mainly in the nondominant limb provide an opportunity to identify particular limb usage patterns that might be associated with CTS. Of the present study's 21 affected patients, 16 were using their nondominant limb to perform activities that required sustained gripping. Fourteen of the 16 activities were related to occupation. These findings strongly suggest an association between activities that require sustained gripping and development of CTS. That the card dealers simultaneously used their nondominant hand for sustained gripping and the dominant hand for the repetitive activity of dealing suggests that sustained gripping is a stronger risk factor than repetitive activity for the development of CTS—an unanticipated finding. ... Episodic hand tingling during mouse use likely reflects impaired blood flow to the median nerve, which occurs when carpal tunnel pressure approaches or exceeds 20 to 30 mm Hg.

[Federal Practitioner](#)

Yisheng Biopharma and the United States Army Medical Research Institute of Infectious Diseases announce positive animal results of vaccine against Ebola virus

14 July - Yisheng Biopharma Co., Ltd., a biopharmaceutical company focusing on research, development, manufacturing, sales and marketing of biological vaccines and pharmaceutical products, and the United States Army Medical Research Institute of Infectious Diseases ("USAMRIID") today announced preliminary positive animal results of a virus-like particle (VLP)-based vaccine in combination with PIKA adjuvant, a Toll-Like Receptor 3 (TLR3) agonist. ... In this study, the scientists at USAMRIID evaluated the immunogenicity and protective efficacy of their VLP vaccine candidate in a murine model with or without PIKA adjuvant against Ebola virus infection in a laboratory setting. Under the virus challenge study, the group of animals vaccinated without PIKA adjuvant demonstrated 40 percent protection measured by the survival rate; the groups of animals vaccinated with PIKA adjuvant showed 100 percent protection at both high and low dose levels of the PIKA adjuvant. The superior survival rate with PIKA adjuvant was consistent with production of significantly higher antigen-specific antibody titers in comparison to vaccination with VLP alone. [PR Newswire](#)

ZIKA VIRUS

A case of Zika apparently spread from a patient to a family caregiver

18 July - It's been thought that the Zika virus spreads only through mosquito bites or sexual contact. But someone in Utah appears to have caught Zika another way — while caring for an elderly family member infected with the virus. ... Health officials stressed to reporters in a press briefing that mosquitoes remain the main way that Zika spreads. And there is no evidence at this point that the virus can be spread from one person to another "by sneezing or coughing, routine touching, kissing, hugging or sharing utensils," Dr. Satish Pillai, the CDC's incident manager, told reporters. ... The family caregiver who became infected quickly recovered and is being interviewed, along with other family members, by federal and state investigators to try to determine the route of viral transmission in this case. And investigators are testing mosquitoes in the area, although there's no sign so far that any local insects are carrying the virus. ... Tests have already shown that the deceased elderly patient had "uniquely high amounts of virus" in the bloodstream, according to a CDC statement. The level of virus was more than 100,000 times higher than seen in other samples of infected people, according to the CDC. [NPR](#)

Brazil health authorities launch app to map Zika during 2016 Olympics

20 July - The Brazilian Ministry of Health has launched an app to monitor and report symptoms of Zika virus and other known epidemics in the country. The app, Guardioes de Saude (Guardians of Health) will give Brazilian residents and attendees of the 2016 Olympic and Paralympic Games – as well as the estimated 500,000 foreign visitors – the ability to help curb the spread of mosquito-transmitted diseases. The app will be accessible to smartphone users in seven languages ... [and] will encourage users to indicate their health condition daily, reporting specific symptoms typical of known epidemics in the country, including respiratory issues, diarrhea and rashes. Consistent reporting will go to the Health Map function of the app, encouraging other users to exercise awareness in areas deemed critical. The government will then be able to detect and monitor these symptoms, hopefully anticipating and mitigating the spread of communicable diseases. [MobiHealthNews](#)

CDC awards \$60 million to help states and territories battle Zika

21 July - The Centers for Disease Control and Prevention (CDC) will begin making awards totaling nearly \$60 million to states, cities, and territories to support efforts to protect Americans from Zika virus disease and adverse health outcomes that can result from Zika infection, including the serious birth defect microcephaly. The funding, distributed through CDC's Epidemiology and Laboratory Capacity for Infectious Diseases Cooperative Agreement (ELC), will support activities to protect the health of the American public,

especially pregnant women, including epidemiologic surveillance and investigation, improving mosquito control and monitoring, and strengthening laboratory capacity. It will also support participation in the U.S. Zika Pregnancy Registry to monitor pregnant women with Zika and their infants, as well as Zika-related activities in U.S.-Mexico border states.

[CDC](#)

Confronting a lingering question about Zika: How it enters the womb

18 July - ... [A] new study comes the closest so far to explaining how Zika might cross the placenta. The study ... shows that Zika is able to infect several types of placenta cells, and suggests two ways the virus might get to the fetus. ... It found that the virus can enter the placenta in every trimester. The risk of the worst damage — babies born with unusually small heads, or microcephaly — appears to be highest in early pregnancy, but significant brain damage might still occur if the mother is infected in late pregnancy, the researchers found. The study used two strains of the Zika virus — one from Africa and one from the current epidemic in Latin America — and found that the one from Latin America “was much more infectious,” said one of the study’s authors. ...

[Another study showed] that the main placental barrier cells resist Zika by releasing an antiviral molecule. ... One possible entry point involves structures called chorionic villi, which anchor the placenta into the wall of the uterus during the first trimester. ... The new research suggests that Zika could also get to the fetus via another route, beginning in the second trimester, crossing the membrane that forms the amniotic sac in which the fetus develops.

[The New York Times](#)

Florida health officials investigate possible case of locally acquired Zika

19 June - Florida health officials are investigating a case of Zika in a person in Miami-Dade County who may have been infected locally rather than in an area outside the continental U.S. where the virus is known to be circulating. If the person is confirmed to have acquired the virus locally, that could mean that it was transmitted by mosquitoes—possibly the first such instance of that occurring. The Florida Department of Health said in a short announcement late Tuesday that it is “actively conducting an epidemiological investigation” together with the U.S. Centers for Disease Control and Prevention of the “possible non-travel-related case.” ... U.S. health officials have said they expect some transmission of Zika by mosquitoes this summer, particularly in southern states such as Florida and parts of the Gulf Coast, where the species of mosquito that can carry Zika is most commonly found. [The](#)

[Wall Street Journal](#)

Mosquito studies show rapid Zika spread, rule out some US species

19 July - In a pair of new studies on Zika virus in mosquito populations, researchers found

the virus in *Aedes* mosquitoes near the homes of infected patients in southern Mexico, with hints that it was introduced from Guatemala, and another team found that two species found in large parts of the United States aren't likely to transmit the disease. The first report adds evidence for the northward spread of Zika virus in the Americas, while the second one provides a bit of reassurance, though more studies to gauge the risk in different mosquito populations are needed. [CIDRAP](#)

Projected Zika virus importation and subsequent ongoing transmission after travel to the 2016 Olympic and Paralympic Games — country-specific assessment, July 2016

22 July - ... All countries are at risk for travel-associated importation of Zika virus. CDC identified 19 countries currently not reporting Zika outbreaks but with environmental conditions and population susceptibility that could sustain mosquito-borne transmission of Zika virus during August–September. Among these, Chad, Djibouti, Eritrea, and Yemen have risk uniquely attributable to their travel related to the 2016 Olympic and Paralympic Games (Games), because these four countries do not have substantial non-Games travel to any countries with local Zika virus transmission. With the exception of four countries, attendance at the Games does not pose a unique or substantive risk for mosquito-borne transmission of Zika virus in excess of that posed by non-Games travel. Efforts to enhance global health security to prevent, detect, and respond to Zika virus, as well as other emerging infections, require a sustained international commitment at all levels of government, the private sector, and civil society. [Morbidity and Mortality Weekly Update](#)

Quebec-made vaccine against Zika ready for testing on humans

20 July - A made-in-Quebec vaccine against the Zika virus is the first in Canada to get regulatory approval for testing in humans. A team from Université Laval got the go-ahead from Health Canada and the U.S. Food and Drug Administration to begin Phase I clinical trials. The 16-month trial period will test the vaccine on 10-15 volunteers here and another group at the University of Pennsylvania, which is a research partner. "We have evidence that it's potent and safe in animals," said team leader Gary Kobinger of Université Laval. "Now we'll collect data on the safety and immunogenicity in humans." ... Kobinger expects the vaccine to have few if any side effects, as it resembles a flu vaccine that passed all trials successfully. If all goes well, it should enter Phase II trials on a larger group of volunteers in early 2017. [CBC News](#)

Woman-to-man Zika infection reported

15 July - The first case of sexual transmission of Zika virus from a woman to a man appears to have occurred in New York City, health officials there reported Friday. The unnamed woman "engaged in a single event of condomless vaginal intercourse with a male partner

the day she returned to NYC from travel to an area with ongoing Zika virus transmission,” according to Alexander Davidson, MPH, and colleagues in the city’s Department of Health and Mental Hygiene, during which she had already begun to show symptoms of infection. A week later, the male partner also developed Zika symptoms, including fever, rash, joint pain, and conjunctivitis, the officials said in an early online release from Morbidity and Mortality Weekly Report. By this time, the woman had already tested positive for Zika infection, and subsequent testing in the man confirmed that he, too, had contracted the virus. ... They noted that other studies had identified the virus in the genital tract of infected women, and called for more research “to determine the characteristics of Zika virus shedding in the genital tract and vaginal fluid of humans.” [MedPage Today](#)

Zika data from the lab, and right to the web



18 July - ... Since February, a team led by David H. O’Connor, the chairman of the center’s global infectious diseases department, has been conducting a unique experiment in scientific transparency. The tactic may presage the evolution of new ways to respond to fast-moving epidemics. Dr. O’Connor and his colleagues have been infecting pregnant

female macaques with the Zika virus, minutely recording their symptoms, and giving them blood tests and ultrasounds. But then, instead of saving their data for academic journals, the researchers have posted it almost immediately on a website anyone can visit. The openness of the process thrills scientists, who say it fosters collaboration and speeds research. “David’s work is very useful,” said Dr. Koen Van Rompay, a virologist at the California National Primate Research Center at the University of California, Davis. “We all learn from each other and make sure we don’t duplicate each other’s work.” [The New York Times](#)

Zika virus disease in the United States, 2015–2016

As of July 20, 2016 (5 am EST). ... This update from the CDC Arboviral Disease Branch includes provisional data reported to ArboNET for January 01, 2015 – July 20, 2016. [CDC](#)

US States

- Locally acquired mosquito-borne cases reported: 0
- Travel-associated cases reported: 1,403
- Laboratory acquired cases reported: 1
- Total: 1,404
 - Sexually transmitted: 15
 - Guillain-Barré syndrome: 5

US Territories

- Locally acquired cases reported: 3,815
- Travel-associated cases reported: 12
- Total: 3,827*
 - Guillain-Barré syndrome: 14

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INFLUENZA

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

Pneumonia and Influenza (P&I) Mortality Surveillance for 2015-2016 Influenza Season Week 27 ending July 9, 2016:

- NCHS Mortality Surveillance Data: Based on NCHS mortality surveillance data available on July 14, 2016, 5.2% of the deaths occurring during the week ending June 25, 2016 (week 25) were due to P&I. This percentage is below the epidemic threshold of 6.4% for week 25.
- 122 Cities Mortality Reporting System: During week 27, 5.5% of all deaths reported through the 122 Cities Mortality Reporting System were due to P&I. This percentage was below the epidemic threshold of 6.0% for week 27. [CDC](#)

NHRC: Febrile Respiratory Illness Surveillance Update

For 2016 Week 28 (through 16 July 2016):

- Influenza: No new cases of NHRC laboratory-confirmed influenza among US military basic trainees.
- FRI surveillance at all eight U.S. military basic training centers indicated FRI rates were at or below expected values. [Naval Health Research Center](#)

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VETERINARY/FOOD SAFETY

United Kingdom: Enterohaemorrhagic *Escherichia coli*

20 July - On 1 July 2016, the National IHR Focal Point for the United Kingdom notified WHO of an outbreak of Enterohaemorrhagic Shiga toxin-producing *Escherichia coli* (STEC) O157 PT34 in England and Wales. The increase in the notifications of *E. coli* O157 cases was first observed by the South West Public Health England (PHE) Centre on 21 June. An outbreak control team was convened on 22 June to investigate this increase and, on 24 June, the first samples associated with this increase were confirmed. ... On 27 June, a significant increase in the number of cases with the outbreak strain was observed nationally, and the incident was declared and managed as a national outbreak. Analysis of whole genome sequencing data confirmed that the isolates fall within the same cluster. The outbreak strain is not related to strains currently circulating amongst the UK bovine reservoir but rather closely related to sequences identified in people reporting recent travel to the Mediterranean region. This suggests that the outbreak strain is likely to be imported. As of 14 July, 158 cases had been

identified, of which 105 had been classified as confirmed cases and 53 as probable. Four of these patients remain in hospital. Features of haemolytic uraemic syndrome (HUS) have been reported in seven cases. Two cases have died, both of whom have *E. coli* infection listed as a causative factor. ... Multiple analytical studies have provided evidence that consumption of mixed salad leaves, particularly from catering establishments such as cafes and restaurants, is associated with the infection. [WHO](#)

U.S.: Hawaii DOH - 22 new cases of hepatitis A on Oahu

21 July - The Hawaii Department of Health (HDOH) today reported 22 more cases of hepatitis A on the island of Oahu as of Jul 20. This brings the total number of cases to 74 since the outbreak began on Jun 12, with 26 people requiring hospitalization. The HDOH said in a statement that officials are investigating the source of the cluster of Oahu infections. HDOH officials said the long incubation of the contagious foodborne illness, and the difficulty of remembering foods eaten and restaurants visited, can make epidemiologic questioning difficult. [CIDRAP Foodborne Disease Scan](#) (second item)

U.S.: Infections nearly double in 8 poultry-linked *Salmonella* outbreaks

19 July - The Centers for Disease Control and Prevention (CDC) today reported another outbreak of *Salmonella* linked to live poultry in backyard flocks, with 287 new cases and 10 previously unaffected states reporting infections. Those cases nearly double the 324 that the CDC reported on Jun 2. To date 45 states have reported *Salmonella* illness, with a total of 611 people infected, making 2016 the biggest year for infections linked to backyard birds. The CDC said illnesses have been reported from Jan 4 to Jun 25, and they expect more throughout the summer. Roughly 22% of people (138) have been hospitalized, with one death reported. Most cases have been traced to contact with live poultry, including chicks and ducks, from multiple hatcheries. States with the highest number of cases are New York (67), Ohio (56), Michigan (44), North Carolina (36), and Kentucky (35). Thirty-two percent of infections (195 cases) have been seen in children aged 5 years or younger.

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

U.S.: Outbreak sparks nationwide public health alert and hog recall

21 July - Kapowsin Meats Inc., in Graham, WA recalled approximately 11,658 pounds of pork products Thursday that may be contaminated with *Salmonella* I 4,[5],12:i:-. The recall came after the U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS) issue a public health alert about roaster hogs on Wednesday. The whole roaster hogs were produced between June 13 and July 15. The following products are subject to recall: Varying weights of boxed/bagged Whole Hogs for Barbeque. The recalled products bear establishment number "EST. 1628M" inside the USDA mark of inspection. These items were shipped to various individuals, retail locations, institutions and distributors in Washington. FSIS was notified of an illness investigation in Seattle on July 13, 2016. ... Overnight, the

Seattle *Salmonella* outbreak ... broke into a nationwide public health alert about the use and consumption of whole hog roasters prepared for barbeque. [Outbreak News Today](#)

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WELLNESS

Cutting sugar rapidly improves heart health markers

19 July - Obese children who cut sugar from their diets saw improvements in markers of heart disease after just nine days, a study in *Atherosclerosis* found. For the study, researchers evaluated 37 children ages 9 to 18 who were obese and at high risk for heart disease and Type 2 diabetes. The children were given food and drinks totaling the same number of calories, fat, protein and carbohydrates as their typical diets. The only change was their sugar intake: The researchers swapped foods high in added sugars, like pastries and sweetened yogurts, for options like bagels and pizza. This lowered dietary sugar from 28 percent to 10 percent, and fructose from 12 percent to 4 percent of total calories. After nine days, the researchers found a 33 percent drop in triglycerides, a type of fat tied to heart disease; a 49 percent reduction in a protein called apoC-III that is tied to high triglyceride levels; and dramatic reductions in small, dense LDL cholesterol, a risk factor for heart disease. [The New York Times](#)

Does subsidizing crops we're told to eat less of fatten us up?

18 July - ... In a paper published in *JAMA Internal Medicine*, [researchers at the Centers for Disease Control and Prevention and Emory University] point to a disconnect between the nation's agricultural policies and nutritional recommendations. Americans are told to fill 50 percent of our plates with fruits and vegetables ... [but] U.S. agriculture policies "focus on financing the production of corn, soybeans, wheat, rice, sorghum, dairy and livestock," the researchers write. ... To evaluate the association between the consumption of these foods and the health of Americans, the researchers used data collected by a federal health survey to analyze the daily diet of 10,308 adults. ... "Higher consumption of calories from subsidized food commodities was associated with a greater probability of some cardiometabolic risks," the authors conclude. For instance, they found a higher probability of both obesity and unhealthy blood glucose levels (which raises the risk of Type 2 diabetes) among people who consumed the most calories from subsidized foods. [NPR](#)

Gonorrhea growing more resistant to standard treatment

15 July - The Centers for Disease Control and Prevention (CDC) reported yesterday that the bacterium that causes gonorrhea, the second most common sexually transmitted disease (STD) in the United States, is growing increasingly resistant to its primary recommended

treatment. ... [Researchers] said isolates of *Neisseria gonorrhoeae* collected in 2014 showed that rates of resistance to the antibiotic azithromycin quadrupled from 2013. Because gonorrhea has become increasingly resistant to several other antibiotics that have been used to treat it, the CDC recommends that gonorrhea infections be treated with a combination of azithromycin (taken orally) and ceftriaxone (injected). [CIDRAP](#)

Healthy eating can include ‘a lot’ of (good) fat, analysis of 56 diet studies concludes

19 July - Hanna Bloomfield's bosses at the Department of Veterans Affairs had been reading a lot about the plant-based Mediterranean diet. ... [Studies] had shown that eating lots of fresh vegetables and olive oil along with maybe a splash of red wine could have tremendous health benefits, and they wondered whether it was something the VA, as an organization, should consider recommending to its more than 9 million patients. ... Bloomfield ... pulled 56 previously conducted studies on the subject and re-analyzed all the data. ... Bloomfield found that the diet didn't seem to impact overall mortality. ... [However, the] Mediterranean diet not only appeared to reduce a person's risk of heart issues but also seemed to have benefits in connection with breast cancer and type 2 diabetes. ... Bloomfield noted that the evidence, which included only a few randomized, controlled trials, was not great enough for her to recommend that the VA push the diet universally on all its charges, but that it was strong enough that individual doctors may bring it up to their patients on a case-by-case basis. [The Washington Post](#)

HIV therapy for breastfeeding mothers can virtually eliminate transmission to babies

18 July - For HIV-infected mothers whose immune system is in good health, taking a three-drug antiretroviral regimen during breastfeeding essentially eliminates HIV transmission by breast milk to their infants, according to results from a large clinical trial conducted in sub-Saharan Africa and India. ... Promoting Maternal and Infant Survival Everywhere (PROMISE) ... investigators found that both three-drug maternal antiretroviral therapy and daily infant nevirapine were safe and effective at preventing HIV transmission during breastfeeding. Overall, infant mortality in the study was extremely low, with nearly all babies surviving their first year of life. "These findings add to the considerable body of evidence confirming the benefits of antiretroviral therapy for every person living with HIV," said Anthony S. Fauci, M.D., director of NIH's National Institute of Allergy and Infectious Diseases (NIAID). [NIH](#)

Lifting lighter weights can be just as effective as heavy ones

20 July - Upending conventions about how best to strength train, a new study finds that people who lift relatively light weights can build just as much strength and muscle size as those who grunt through sessions using much heftier weights — if they plan their workouts correctly. ... [Researchers] recruited 49 young men who had been weight training for a year

or more. ... One group was assigned to follow the standard regimen, in which weights were set at between 75 and 90 percent of the man's one-repetition maximum and the volunteer lifted until he could not lift again, usually after about 10 repetitions. The other volunteers began the lighter routine. Their weights were set at between 30 and 50 percent of each man's one-repetition maximum, and he lifted them as many as 25 times, until the muscles were exhausted. ... The results were unequivocal. There were no significant differences between the two groups. All of the men had gained muscle strength and size, and these gains were almost identical, whether they had lifted heavy or light weights.

[The New York Times](#)

No condoms, no problems in PrEP study

20 July - Low condom use did not undermine the efficacy of "on-demand" pre-exposure prophylaxis (PrEP) among gay men at high risk for HIV, a researcher said [in Durban, South Africa]. In an open-label extension of the randomized placebo controlled IPERGAY trial, only one participant of more than 360 acquired HIV over a year and a half of follow-up. ... The incidence of HIV was actually lower in the extension study than it had been in the randomized trial, even though the rate of condomless sex rose, Molina reported at the International AIDS Conference. The IPERGAY study had 400 participants, randomly assigned to take an anti-HIV medication -- the single-pill combination of tenofovir/emtricitabine (Truvada) -- or a placebo before and after sexual encounters. In IPERGAY and its extension, participants were instructed to take two tablets between two and 24 hours before having sex, another the following day, and a final pill the day after that. The process could continue with a pill a day if there were continuing sexual encounters. The blinded part of the study was stopped early because the data showed an 86% relative reduction in the incidence of HIV among participants getting the active drug. [MedPage Today](#)

Study shows durable benefits of early HIV treatment

18 July - Early treatment of the human immunodeficiency virus (HIV) can dramatically reduce the odds of passing the deadly disease on to others, and the protection persists for years, according to final results from a major study that looked at the timing of antiretroviral therapy, or ART. ... Early therapy for HIV, the virus that causes AIDS, "was associated with a 93% lower risk of linked partner infection than was delayed ART," reported the team. ... "If you take antiretroviral therapy to the point of (virus) suppression, there's a vanishingly small risk you will infect your partner," he told Reuters Health. ... "We saw no transmissions when people successfully took their treatment" and it was given time to work. However, when volunteers were allowed to delay therapy until they developed an AIDS-defining illness or their CD4+ cell counts fell below 250 cells per cubic millimeter, the odds of infecting someone increased dramatically. [Reuters](#)

Winning the campaign to curb teen pregnancy

19 July - ... Today, America's birthrate for teenage mothers has hit a historic low — less than 40 percent of what it was at its modern peak in 1991, when it was 61.8 births per 1,000 girls 15 to 19 years old. In 2014, the rate was 24.2 per 1,000. ... Still, however, the United States

has a far higher rate of teenage pregnancies than most developed countries. Three-quarters of these pregnancies are unplanned, and 30 percent end in abortion. ... But this could change soon, if other states copy an idea that has had a smashing debut in Colorado. Over the past seven years, that state has cut the rate of babies born to girls ages 15 to 19 by nearly half. The teenage abortion rate is down by the same amount. Repeat teenage births have dropped by 58 percent. Colorado has accomplished this with no increase in teenage sexual activity or in sexually transmitted infections. And the state has saved tens or perhaps hundreds of millions of dollars. A main reason for Colorado's success is a program to make long-acting reversible contraceptives (known as LARCs), such as hormonal implants or intrauterine devices, available cost-free to women and girls who want them.

[The New York Times](#)

Zinc lozenges may shorten common colds by three full days

15 July - Lozenges containing zinc acetate in sufficient quantity work to shorten the common cold from the usual seven days to about four, according to a new analysis of clinical trial results. ... Since clinical studies using low-dose zinc lozenges had found no effect on common colds, Hemila and his team looked only at trials that used lozenges delivering a total of 75 milligrams of zinc or more per day. They found three trials comparing these high-dose zinc lozenges against a placebo in common cold sufferers who were randomly assigned to one treatment or the other. ... Participants were instructed to have a lozenge every two to three hours and the lozenges took about 15 to 30 minutes to dissolve. Overall, the average dose of zinc was between 80 and 92 mg of zinc per day.

[Reuters](#)

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USAFRICOM

Angola/Democratic Republic of Congo: WHO: 73 more yellow fever cases in Angola, 491 more in DRC

15 July - In its weekly yellow fever situation report, the World Health Organization (WHO) today noted 73 more cases of the disease in Angola, bringing that country's suspected cases to 3,625. The Democratic Republic of the Congo (DRC), in contrast, had a huge spike in cases, 491 more than last week, raising the number of suspected cases to 1,798. The DRC also reported 10 more deaths as of Jul 11, bringing the total number of fatalities to 85. ... There were also 2 more deaths this week, bringing Angola's total fatalities to 357. For the third week in a row, the DRC reported no new epidemiologic information besides the increase in suspected cases and deaths. Vaccination efforts and surveillance programs, however, remain steadfast, the WHO said. [CIDRAP News Scan](#) (first item)

Mozambique: Fighting HIV in two high-risk groups - sex workers and truck drivers

18 July - ... [A] new pilot program set up by Doctors Without Borders to prevent the spread of HIV ... focuses on sex workers and another group at high risk of infection — truck drivers. This part of southern Africa has been hit harder by HIV than any place in the world. In Mozambique roughly 1 in 10 adults are infected with the virus. And according to UNAIDS sex workers are 10 times more likely than the general population to be HIV positive. ... Truckers spend weeks, even months, on the road ferrying loads of sugar, gasoline, auto parts and other loads of cargo between Beira and Central Africa. ... The Doctors Without Borders program offers weekly HIV testing and counseling for truckers all along the highway up to the border with Malawi. They also distribute free condoms at truck stops – and to sex workers. ... Theodora Tongowashe from Doctors Without Borders ... encourages the sex workers to get tested for HIV. Her team even offers to do tests on the spot in the back of their Land Cruiser. If the results are negative she offers to get them on to a pilot prevention program, called PrEP, in which the women at high risk of HIV infection are put on a daily regimen of anti-AIDS drugs to block the virus. [NPR](#)

South Sudan: 11 dead in suspected South Sudan cholera outbreak

19 July - UNICEF says 11 people have died in a suspected cholera outbreak in South Sudan. The organization said Tuesday there are 72 suspected cases so far, including 36 in the capital, Juba. Others are in Bor and Terekeka counties. South Sudan's health ministry has not declared an outbreak because samples are undergoing final laboratory testing for confirmation, but a cholera response plan has been launched anyway, said ministry official Dr. Thomas Akim Ujjiga. The ministry issued an alert Sunday after suspected cases started arriving Friday at Juba Teaching Hospital. One suspected case came from inside a United Nations base in Juba, raising fears that it could spread among the 4,000 people sheltering there. [U.S. News & World Report](#)

Nigeria: Boko Haram has left 250,000 children suffering from 'severe malnourishment'

19 July - Almost 1 in 5 children in an area formerly occupied by the terror group will die if they do not receive treatment, a new UNICEF report says. Boko Haram's onetime control over Nigeria's northeastern Borno state has left an estimated quarter of a million children suffering from severe malnourishment, UNICEF announced in a report on Thursday. Increased humanitarian access to the region has exposed the extent of the crisis, and UNICEF calculates that of the 244,000 children suffering from severe acute malnutrition in Borno, an estimated 49,000 will die if they do not receive treatment. ... "There are 2 million people we are still not able to reach in Borno state, which means that the true scope of this crisis has yet to be revealed to the world," Fontaine said. [Time](#)

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Afghanistan: Attacks on hospitals - Afghanistan's medics under fire

19 July - ... There have been at least 2,400 strikes against hospitals, health workers and patients in the past three years, according to the International Committee for the Red Cross. In Afghanistan alone, there is an incident every three days. ... Hardeman says the attack in Kunduz devastated the MSF community and she's worried that these attacks may make medics less willing to work on the frontline. [Al Jazeera](#)

Pakistan: Cutaneous leishmaniasis outbreak infects scores in northwestern Pakistan

21 July - Nearly 200 cases of cutaneous leishmaniasis have been reported recently in the Safi Tehsil (administrative division) of the Mohmand Agency district in the Federally Administered Tribal Areas of Pakistan (FATA) concerning health officials of its possible spread into other tehsils, according to a Daily Times report. Mohmand Agency Surgeon Dr. Razaullah said health officials in other tehsils have been warned of the outbreak, which has infected 193 to date. Dr. Razaullah said the disease was a major public health problem in the Agency, especially alongside regions bordering Afghanistan and the tehsils of the agency with a heavy influx of refugees. Vaccination drives would be conducted in neighboring tehsils. [Outbreak News Today](#)

Pakistan: Pricing dispute hits supply of TB drugs

19 July - Swiss pharmaceuticals firm Novartis AG said it has stopped making tuberculosis drugs in Pakistan in a dispute over pricing, prompting fears of a health crisis due to a shortage of drugs in a country with the world's fifth-highest TB rates. As in many developing countries, the Drug Regulatory Authority of Pakistan (DRAP) sets prices for about 320 critical medicines. But pricing caps have not been significantly raised since 2001, making it unviable for firms to make many of the drugs. The issue has become particularly acute for TB drugs. Of 18 companies licensed to manufacture TB drugs in Pakistan, only four, including Novartis, were making them this year, said Ayesha Haq, executive director of Pharma Bureau, a trade group representing 20 firms in Pakistan. Doctors and public health officials said shortages could lead to a rise in drug-resistant strains of TB with tens of thousands of patients missing doses mid-treatment. [Reuters](#)

Saudi Arabia: Fatal MERS in Najran as study pans convalescent plasma

20 July - ... After 6 days of no new cases, Saudi Arabia's Arabia Ministry of Health (MOH) reported that a man from Najran has died from MERS-CoV (Middle East respiratory

syndrome coronavirus). The case is not related to an outbreak in recent weeks at the King Khalid University Hospital in Riyadh. According to the MOH, a 49-year-old Saudi man with confirmed MERS passed away yesterday. His source of infection is listed as "primary," meaning not likely contracted from another person. He was not a healthcare worker. ... The new case brings Saudi Arabia's MERS-CoV total to 1,439, 606 of them fatal, since 2012.

In other MERS news, a study today in *Emerging Infectious Diseases* explored the feasibility of using convalescent plasma from recovered MERS patients as passive immunotherapy and found the evidence to be lacking. The plasma, which contained MERS-CoV-specific antibodies, could theoretically prevent death or worsening symptoms in patients.

Researchers conducted a feasibility trial by obtaining plasma from ... 443 samples. Using ELISA (enzyme-linked immunosorbent assay), the researchers found only 12 of the samples (2.7%) had adequately high antibody titers. [CIDRAP](#)

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USEUCOM

Europe: Standardised surveillance of *Clostridium difficile* infection in European acute care hospitals - a pilot study, 2013

21 July - *Clostridium difficile* infection (CDI) remains poorly controlled in many European countries, of which several have not yet implemented national CDI surveillance. In 2013, experts from the European CDI Surveillance Network project and from the European Centre for Disease Prevention and Control developed a protocol with three options of CDI surveillance for acute care hospitals: a 'minimal' option (aggregated hospital data), a 'light' option (including patient data for CDI cases) and an 'enhanced' option (including microbiological data on the first 10 CDI episodes per hospital). A total of 37 hospitals in 14 European countries tested these options for a three-month period (between 13 May and 1 November 2013). All 37 hospitals successfully completed the minimal surveillance option (for 1,152 patients). Clinical data were submitted for 94% (1,078/1,152) of the patients in the light option; information on CDI origin and outcome was complete for 94% (1,016/1,078) and 98% (294/300) of the patients in the light and enhanced options, respectively. The workload of the options was 1.1, 2.0 and 3.0 person-days per 10,000 hospital discharges, respectively. Enhanced surveillance was tested and was successful in 32 of the hospitals, showing that *C. difficile* PCR ribotype 027 was predominant (30% (79/267)). This study showed that standardised multicountry surveillance, with the option of integrating clinical and molecular data, is a feasible strategy for monitoring CDI in Europe. [Eurosurveillance](#)

Russia: Is the Kremlin fuelling Russia's HIV/Aids epidemic?

19 July - ... The number of registered HIV-positive Russians surpassed one million in

January, almost doubling since 2011, Health Minister Veronika Skvortsova told the conference. She admitted that this number may reach 2.5 million by 2020. The current rate of HIV is less than 1 percent of the country's population of 143 million. ... Here, it claims 300 new victims a day, or almost 30,000 deaths a year. Russia, along with four African nations and Indonesia, face the "triple threat of high HIV burden, low treatment coverage and no or little decline in new HIV infections," according to a 2014 report by UNAIDS, a United Nations programme on HIV and Aids. UNAIDS has warned that Russia "is facing a large and growing HIV epidemic." It's one which has become "irreversible in many ways," Russia's Federal Aids Centre has said. On July 11, UNAIDS, in its 2016 Prevention Gap Report on how unequal access to HIV prevention options caused a rise in infections between 2010 - 2015, singled out Eastern Europe and Central Asia as "the only region in the world where the HIV epidemic continued to rise rapidly." ... "Russia's policies are aimed at discriminating [against] all vulnerable groups - drug users, LGBT, sex workers - and directly oppose scientifically proven methods of prevention that are used worldwide," Sarang says, adding that these methods "are replaced with the policies of spreading hate and homophobia".

[Al Jazeera](#)

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USNORTHCOM

Canada: Saskatchewan: Rabies cases double in 2016

21 July - Earlier, we saw that the number of animal rabies cases have increased in Ontario, Canada, particularly in the City of Hamilton. Now, 1500 miles away in the province of Saskatchewan, authorities are reporting a doubling of rabies cases compared to the same period in 2015, prompting a rabies warning. The province has confirmed 18 cases from January 1, 2016 to July 13, 2016, versus nine cases in the same time period in 2015 and seven in 2014. ... Four cases involving domestic animals have been confirmed, involving a cow, a cat, a baby lamb and a baby goat. Also confirmed were cases in skunks (eight) and bats (six). [Outbreak News Today](#)

U.S.: Fracking linked to asthma flare-ups

19 July - The controversial method for mining natural gas known as fracking might trigger asthma flare-ups, according to a US study. Pennsylvania doctors found patients' asthma was harder to control if they lived near a fracking site, compared with other asthma patients. The findings, in more than 25,000 patients, are not proof of a causal effect. The authors say in the journal JAMA that more safety studies are needed. [BBC News](#)

U.S.: Gonorrhea growing more resistant to standard treatment

15 July - The Centers for Disease Control and Prevention (CDC) reported yesterday that the

bacterium that causes gonorrhea, the second most common sexually transmitted disease (STD) in the United States, is growing increasingly resistant to its primary recommended treatment. In a study published in the CDC's *Morbidity and Mortality Weekly Report* (MMWR), researchers said isolates of *Neisseria gonorrhoeae* collected in 2014 showed that rates of resistance to the antibiotic azithromycin quadrupled from 2013. Because gonorrhea has become increasingly resistant to several other antibiotics that have been used to treat it, the CDC recommends that gonorrhea infections be treated with a combination of azithromycin (taken orally) and ceftriaxone (injected). [CIDRAP](#)

U.S.: Health officials - heat wave kills 4 in El Paso

19 July - Four people have died from heat-related illnesses as El Paso swelters in a string of 100-degree days, the city Public Health Department said Tuesday. City public health officials urged residents to protect themselves from the heat as a streak of 16 consecutive days of 100 or hotter came to an end Tuesday even as the unusually hot weather is forecast to simmer back by the weekend. ... Three of the heat-related deaths occurred in June and one took place this month, said officials with the Public Health Department and the El Paso County medical examiner's. ... The deceased were three men and a woman — ages 34, 35, 68 and 85 years old - who each died after falling ill while outdoors. [El Paso Times](#)

U.S.: Microhospitals may help deliver care in underserved areas

19 July - Eyeing fast-growing urban and suburban markets where demand for health care services is outstripping supply, some health care systems are opening tiny, full-service hospitals with comprehensive emergency services but often fewer than a dozen inpatient beds. These "microhospitals" provide residents quicker access to emergency care, and they may also offer outpatient surgery, primary care and other services. They are generally affiliated with larger health care systems. ... So far, they are being developed primarily in a few states — Texas, Colorado, Nevada and Arizona. ... "If you're an affluent consumer and you need services, they can fill a need." [NPR](#)

U.S.: Worrisome resistant bacteria found in Florida sewage

20 July - Researchers in Florida have detected the presence of antibiotic-resistant bacteria in samples taken from water and sediment after a 2014 sewer-line spill. ... [Researchers] reported they found a strain of enterococcus bacteria—*Enterococcus faecium*—that tested resistant to vancomycin, a powerful antibiotic that is considered a last resort against serious and multidrug-resistant infections. What's even more concerning is that the vancomycin-resistant enterococcus (VRE) was found to harbor the vanA gene, which can confer vancomycin resistance to other kinds of bacteria. The researchers found that high levels of VRE and vanA genes persisted in the environment for about 2 weeks after the spill, then diminished steadily. Because they were not able to detect any vanA genes in the water or soil after 2 weeks, they believe the contaminants were sewage-associated and were not

present in the environment before the spill, which released approximately 500,000 gallons of untreated wastewater into a neighborhood of St. Petersburg. [CIDRAP](#)

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USPACOM

Australia: Increases in shigellosis reported in NSW gay men

14 July - The number of shigellosis cases among gay men in New South Wales is up this year and there is concern that the outbreak could worsen, according to a report on a local LGBT news site. The number of shigellosis cases reported to date has eclipsed 150 cases for the year, which is comparable to the numbers for the whole of 2015. The Sydney area has been particularly hard hit. NSW Health Medical Epidemiologist Dr Christine Selvey said although the numbers are already at 150, it's likely just the beginning: "However, it is likely the notifications are just the tip of the iceberg as many people sick with shigellosis will recover without seeing their doctor or getting tested." Around 25 percent of infections are also presented with a co-infection like gonorrhoea, chlamydia and/or Giardia, Selvey notes.

[Outbreak News Today](#)

Hong Kong: Hong Kong investigates 9th suspected iatrogenic botulism case

20 July - The Hong Kong Centre for Health Protection (CHP) of the Department of Health (DH) is investigating a suspected case of botulism, the ninth case, and again stressed to the public that such injections should only be prescribed and performed by registered doctors. The female patient, aged 42 with good past health, has developed swallowing difficulties and upper limb weakness since July 11. ... Her clinical diagnosis was suspected iatrogenic botulism and she is currently in stable condition. According to information provided by the patient, she had received injection to her bilateral calves for slimming purposes in a beauty premises in Shenzhen, Guangdong, on July 8 but she was uncertain whether the injection received was botulinum toxin. "We have no evidence at this stage that patients of the eight recent cases so far had received injections in the same premises. Epidemiological investigations are ongoing," the spokesman added. [Outbreak News Today](#)

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Brazil: Brasília mumps outbreak nears 1000

19 July - The outbreak of mumps in Brazil's Federal District, which includes the Brazilian capital city, Brasília, has grown to nearly 1000 cases and has residents concerned as more cases are reported weekly, according to a Radio Agencia Nacional report (computer translated). The case count currently stands at 960. [Outbreak News Today](#)

PAHO reports almost 1,500 new chikungunya cases

19 July - New chikungunya cases continue to be reported in the Americas, according to a July 18 Pan American Health Organization (PAHO) update. From July 8 to July 15, PAHO reported only 1,479 new suspected or confirmed cases, bringing the total in the Americas this year to 195,628. ... Brazil, which has the most cases of the mosquito-borne disease this year, reported no new infections, leaving its 2016 total at 122,762 suspected and confirmed cases. Colombia, which had also seen rising rates of infection in the last several weeks reported only 179 new cases, bringing that country's total to 17,446. Colombia did, however, report 9 new deaths. There have been 27 deaths from chikungunya this year in the Americas. Central America had the most activity during the week, with Honduras reporting 451 new cases, raising its total to 12,504 cases. Guatemala reported 247 new cases, bringing its total for 2016 to 2,433 cases. [CIDRAP News Scan](#) (second item)

Venezuela: UN rights chief airs worry about food shortages in Venezuela

19 July - The U.N. human rights office is expressing concern about deteriorating human rights, growing violence and "severe shortages" of food, medicine and basic goods in Venezuela. The office of human rights chief Zeid Ra'ad al-Husseini points to reports of rising protests demanding access to food, the arrest of hundreds of demonstrators and excessive use of force against protesters in recent weeks. The Geneva-based office on Tuesday urged Venezuelan authorities to ensure the right to freedom of expression and peaceful assembly and "to consider accepting humanitarian aid" to ensure food and medicine supplies are distributed. Venezuela's government opened its long-closed border with Colombia over the weekend, prompting more than 100,000 Venezuelans to cross to buy as many basic goods as possible amid an economic crisis and 700-percent inflation in Venezuela. [ABC News](#)

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