1 July 2016

Army Public Health Weekly Update

Army Public Health Center

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USAFRICOM | USCENTCOM | USEUCOM | USNORTHCOM | USPACOM | USOUTHCOM

Contents

U.S. MILITARY

- Army identifies 512 reserve medical officers for promotion to Lt. Col.
- Check out the US military's sandbox of silly-putty that predicts disasters and war
- Identification of specific activities associated with fall-related injuries, active component, U.S. Army, 2011
- LeMaster replaces Coots at Regional Health Command Europe
- New commander for health system that includes Madigan Army Medical Center
- Some texts to VA suicide hotline went unanswered
- Study shows one in five individuals from U.S. military sample have obesity
- Transgender people will be allowed to serve openly in military
- VA opposes bill aimed at helping vets in mustard gas experiments

GLOBAL

- 1 in 10 people may face malnutrition as fish catches decline
- Anthrax capsule vaccine completely protects monkeys from lethal inhalational anthrax
- A yellow fever epidemic in Angola could turn into a global crisis
- FDA seeks more data on over-the-counter hand sanitizers
- Lawmakers urge John Kerry to press U.N. for Haiti cholera response
- Limited protection of GSK’s malaria vaccine dwindles in 7 years
- MCR-1 findings in gulls show mobility of resistance threat
- This new technology could deliver drugs and nanoparticles to brain injuries
- WHO appoints first Health Emergencies Program director
- ZIKA VIRUS
- Funding to combat Zika fails to advance in Senate
- More U.S. babies with Zika-related birth defects reported by health agency
- 'Nobody is immune': Bracing for Zika’s first summer in the U.S.
- Study documents live Zika virus in urine and saliva
- Two new vaccines ward off Zika in mice
- Zika animal studies yield new disease clues, optimism for vaccine
- Zika sex research begins despite Congress funding impasse

INFLUENZA

- 2009 H1N1 flu virus originated in central Mexico, study says
- Department of Defense Global, Laboratory-Based Influenza Surveillance Program, 2014–2015

Approved for public release, distribution unlimited.
H7N7 avian flu antibodies found in Italian poultry workers
NHRC: Febrile Respiratory Illness Surveillance Update
WHO: Influenza Update

VETERINARY/FOOD SAFETY

- A new treatment for dogs scared by thunder and fireworks
- F.D.A. ruins raw cookie dough for everybody
- Four multistate outbreaks of human Salmonella infections linked to small turtle exposure — United States, 2015

WELLNESS

- FDA approves Gilead drug that can treat all forms of hepatitis C virus
- Germs in the subway are the harmless kind
- How the humble orange sweet potato won researchers the World Food Prize
- Survey finds excess health problems in lesbians, gays, bisexuals
- The sound of your voice may diagnose disease

USAFRICOM

- Central African Republic: Children face ‘staggeringly high’ hunger in conflict-hit Central African Republic
- World Bank contributes to improved disease surveillance and health systems in West Africa

USCENTCOM

- Iraq: The failure in Fallujah
- Saudi Arabia: As more Saudi MERS noted, study details risks in pregnant patients
- Saudi Arabia reports 2 new MERS cases, 1 linked to camels
- Qatar: Middle East respiratory syndrome coronavirus (MERS-CoV)

USEUCOM

- United Kingdom: Brexit ‘will make NHS staff shortages worse’

USNORTHCOM

- U.S.: 12.5% US kids susceptible to measles
- U.S.: Battered by storms, West Virginia struggles to recover
- U.S.: CDC report details public health hazard in Flint, Michigan
- U.S.: Inside a secret government warehouse prepped for health catastrophes
- U.S.: Lethal buzzers - America’s six most dangerous mosquitoes
- U.S.: Low prices for vaccines can come at a great cost
- U.S.: Strategic National Stockpile report discusses possible improvements
- U.S.: Suicide rates by occupational group — 17 States, 2012
- U.S.: Supreme Court strikes down Texas abortion access law

USPACOM

- China: UN - China synthetic drugs trade ‘out of control’
- India: Welcome to India, a country with 18 million slaves
- Indonesia: Lawmakers seek seizure of unapproved vaccines amid fake drug scare

USSOUTHCOM

- Cuba reports no Zika transmission since March; dengue all but eliminated
- El Salvador: Murder and malady – El Salvador’s sugarcane workers
Army identifies 512 reserve medical officers for promotion to Lt. Col.

28 June - The U.S. Army on Tuesday identified over 500 officers for promotion to the rank of lieutenant colonel in the Army Medical Department. ... The boards selected 512 officers for promotion, including 28 officers from the Active Guard Reserve and 484 officers from the Non-Active Guard Reserve and Army National Guard for promotion. The three branches with the highest number of selectees were the Nurse Corps (AN) with 143 officers, Medical Service Corps (MS) with 135 officers, and Medical Corps (MC), with 111 officers. Military.com

Check out the US military’s sandbox of silly-putty that predicts disasters and war

29 June - The Defense Department is playing around with a shape-shifting, color-changing sandbox to limit the carnage from the next deadly flood, wildfire or other catastrophe. ... Made up of kinetic sand, a toy that feels like the stuff on the beach but has the consistency of Silly Putty, the system’s miniature bridges, lakes and other structures morph—or disappear—when a finger crushes critical infrastructure. ... NC State supplied the Tangible Landscape system that now sits inside the military’s spy mapping agency. The university’s free GRASS computer program combines changes in the playdough with sets of geospatial data, like population density and pipeline locations, to predict a change’s influence on surroundings. Defense One

Identification of specific activities associated with fall-related injuries, active component, U.S. Army, 2011

June 2016 - Non-deployed (n=988) and deployed (n=254) injury rates were not statistically different (2.20 per 1,000 non-deployed person-years [p-yrs], 2.21 per 1,000 deployed p-yrs, respectively). More than 75% of injuries were temporarily disabling fractures, sprains, and strains, primarily to lower extremities. The most frequent activities associated with non-deployed fall injuries were sports (e.g., snowboarding and basketball; 22%), parachuting (20%), walking/marching (19%), and climbing (15%). Ice and snow were the leading hazard (43%). The most common associated activities among deployed soldiers were occupational tasks (53%), walking/patrolling (24%), climbing (23%), and sports (17%). Specific interventions that target the activities and hazards identified in this investigation are suggested as priorities to reduce Army fall-related injuries. Medical Surveillance Monthly Report
American Fitness Index:
2016 Quick View
The ACSM American Fitness Index® Data Report is a Scientific Snapshot of the State of Health and Fitness at the Metropolitan Level.
The site also has an infographic with all the top data for the American Fitness Index 2016 results. Includes the top ten fittest metropolitan areas plus some interesting city-specific facts.

LeMaster replaces Coots at Regional Health Command Europe

24 June – The line to greet Brig. Gen. Norvell V. Coots was dozens deep. ... Soldiers and their families were waiting to say farewell to Coots, the outgoing commander of Regional Health Command Europe, who was retiring from the Army after two years as the Army’s top medical officer in Europe and heading for a job stateside in civilian medicine. Off to the side of the gym, another long line was forming, where ... Lt. Gen. Nadja West, the U.S. Army Surgeon General, was standing. West commanded what was then European Regional Medical Command from 2010 to 2012. ... She spoke highly of Coots and welcomed the new commander, Col. Dennis P. LeMaster. LeMaster has held numerous medical assignments around the world, including in Korea, Alaska and previously in Germany. Stars and Stripes

New commander for health system that includes Madigan Army Medical Center

29 June - Brig. Gen. Bertram Providence is taking over as commander of the Regional Health Command-Pacific, which includes Pierce County’s Madigan Army Medical Center in its network of facilities. Providence previously served as the command surgeon for the U.S. Army Forces Command at Fort Bragg. He succeeds Maj. Gen. Patrick Sargent, who will be leaving for a position at Joint Base San Antonio in Texas. The change-of-command ceremony is scheduled for Thursday at Fort Shafter in Hawaii, where the regional commander is based. The Seattle Times

Some texts to VA suicide hotline went unanswered

27 June - Almost 30 percent of text messages sent as a test to a crisis hotline for suicidal veterans went unanswered, according to a Government Accountability Office (GAO) report released Monday. ... The GAO report follows a scathing inspector general report from February that found some calls to the hotline were going to voicemail or didn’t receive immediate attention. ... The GAO report also addressed the wait time for callers and noted that the VA is working on its response times to those calling the hotline. But no similar attention has been placed on responding to text messages, it added. The hotline received about 13,000 texts in 2014 and 16,000 in 2015, and VA officials told the GAO that 87 percent received a response within two minutes in both years. As part of its report, the agency sent 14 test text messages to the hotline. Of those, four went unanswered, for a rate of 28.6 percent of texts unanswered, though the GAO specified its sample is "nongeneralizable." The Hill
Study shows one in five individuals from U.S. military sample have obesity

27 June - Despite being held to stringent weight and body fat standards, newly published research shows that one in five individuals from a sample of U.S. military personnel from 2001 - 2008 have obesity. ... Data from the research also showed an association between military personnel who have obesity - including both active duty and veterans - and mental health conditions like depression and posttraumatic stress disorder (PTSD). ... [Researchers] examined data from 42,200 current and former military personnel from 2001 - 2008 as part of the Millennium Cohort Study. Of the 42,200 individuals, rates of obesity were significantly higher among veterans (32%) compared to service members (20%). Percentage of veterans with obesity did not change significantly between less than one year and more than three years after military separation, suggesting that the increase in obesity may occur shortly after separation. News-Medical.net

Transgender people will be allowed to serve openly in military

30 June - Defense Secretary Ashton B. Carter on Thursday removed one of the final barriers to military service by lifting the Pentagon’s ban on transgender people serving openly in the armed forces. The decision pushes forward a transformation of the military that Mr. Carter has accelerated in the last year with the opening of all combat roles to women and the appointment of the first openly gay Army secretary. … [There] were already thousands of transgender people in the military. But until Thursday, most have been forced into an existence shrouded in secrets to avoid being discharged. The New York Times

VA opposes bill aimed at helping vets in mustard gas experiments

29 June - The Department of Veterans Affairs (VA) pushed back Wednesday against a proposal aimed at making it easier for World War II veterans intentionally exposed to mustard gas in U.S. military experiments to get medical benefits. The VA argues that the plan could unintentionally expand coverage to all WWII veterans. ... Sen. Claire McCaskill (D-Mo.) issued a report earlier this year saying that veterans exposed to mustard gas by the U.S. have been unfairly denied benefits and introduced legislation to combat the issue. Her bill would mandate a review of previously denied claims, lower the bar to get the benefits, revamp the VA’s application and adjudication process. ... Specifically, the bill would mandate that during the review of previous claims, the VA must presume a veteran was exposed to mustard gas until proved otherwise. During World War II, the military exposed about 60,000 service members to mustard gas and another chemical agent called lewisite in an effort to test protective equipment. The Hill
1 In 10 people may face malnutrition as fish catches decline

30 June - There are many important reasons to manage the world’s wild fisheries. We do it to maintain stock levels, to ensure biodiversity and because fish are valuable. But researchers say there’s something else in need of protection: The very people who rely on fish for food. Scientists are predicting more than 10 percent of the world’s population, a whopping 845 million people, will experience deficiencies in critically important micronutrients including zinc, iron, vitamin A, vitamin B12, and fatty-acids in the coming decades if global fish catches continue to decline. ... [The] lead author ... calls it "a perfect storm" for countries like Indonesia, the Philippines, Malaysia, the Maldives, Angola, Ghana, Nigeria and others that rely heavily on wild-caught fish for sustenance, and cautions the findings are just "the tip of the iceberg." NPR

Anthrax capsule vaccine completely protects monkeys from lethal inhalational anthrax

27 June - Vaccination with the anthrax capsule -- a naturally occurring component of the bacterium that causes the disease -- completely protected monkeys from lethal anthrax infection, according to a study. These results indicate that anthrax capsule is a highly effective vaccine component that should be considered for incorporation in future generation anthrax vaccines. Science Daily

A yellow fever epidemic in Angola could turn into a global crisis

26 June - Almost 80 years after the yellow fever vaccine was created in a New York laboratory, a massive outbreak of the disease has killed hundreds of people in [Angola], where most were never immunized. Now, the virus is jumping across borders into other nations whose populations are also largely unvaccinated. More than 3,000 suspected cases are in Angola and 1,000 are in neighboring Congo, making this the biggest urban epidemic in decades. More than 400 people have died. There are growing concerns that Chinese workers — of whom there are thousands in Angola — will carry the virus to Asia, where nearly all of the rural poor are also unvaccinated. The explosion of yellow fever has put severe strain on stockpiles of the vaccine. And the four major manufacturers that produce the vaccine cannot make enough to conduct the kind of campaign that would quickly halt the spread of the disease in other parts of the region. The Washington Post
FDA seeks more data on over-the-counter hand sanitizers

29 June - The U.S. Food and Drug Administration said it is seeking additional data to support the safety and effectiveness of certain active ingredients used in topical consumer antiseptic rubs, including hand sanitizers that are sold over-the-counter. The regulator's move comes more than a year after it asked for additional data to check if antiseptics used in healthcare settings were as safe and effective as they were once considered. The proposed rule, which will be available for public comment for 180 days, requires that manufacturers provide information for active ingredients: alcohol, isopropyl alcohol and benzalkonium chloride. Since 2009, 90 percent of all consumer antiseptic rubs use ethanol or ethyl alcohol as their active ingredient, according to the agency. Reuters

Lawmakers urge John Kerry to press U.N. for Haiti cholera response

29 June - Angry over a six-year cholera epidemic in Haiti traced to infected United Nations peacekeepers, 158 members of Congress asked Secretary of State John Kerry on Wednesday to pressure the United Nations for a more effective response, including reparations to victims. By official estimates, the epidemic has killed roughly 10,000 people and sickened more than 800,000 in Haiti, the Western Hemisphere’s poorest country. Some research has suggested that the death toll could be far higher. The New York Times

Limited protection of GSK's malaria vaccine dwindles in 7 years

29 June - The world's first malaria vaccine, developed by GlaxoSmithKline, provides some protection after three doses but its effect dwindles to almost nothing after seven years, scientists said on Wednesday. Publishing a long-term study of the vaccine - called RTS,S or Mosquirix and designed for children in Africa where the disease claims most of its victims - researchers said the decline in its efficacy over time is fastest in children living in areas with higher than average rates of malaria. This raises questions about whether Mosquirix can play a meaningful role in fighting malaria, they said, and suggests a four-dose schedule would be needed if it were used. Reuters

MCR-1 findings in gulls show mobility of resistance threat

24 June - The feared antibiotic resistance factor MCR-1 has been found in seagulls in Argentina and Lithuania, raising the possibility that migratory birds may further spur the already global spread of the threat, according to two of a flurry of MCR-1 reports released this week. Besides the seagulls, scientists have found MCR-1 in bacteria from hospital patients in Ecuador and Poland, sick chickens in China, and meat samples in Portugal, according to the new reports. CIDRAP
This new technology could deliver drugs and nanoparticles to brain injuries

29 June - A new technology may help doctors bring beneficial drugs to injured areas of the brain without invasive means, helping address traumatic brain injuries that span from mild concussions to violent accidents leading up to memory loss. Researchers ... said the technology was based on a peptide sequence of four amino acids — cysteine, alanine, glutamine and lysine (CAQK) — that can recognize brain tissue injury. ... The initial injury can hardly be repaired, but the lasting damage of breaking open brain cells as well as blood vessels in the following hours and days can be managed. 

WHO appoints first Health Emergencies Program director

28 June - The WHO today announced that it has appointed Peter Salama, MBBS, as executive director of its new Health Emergencies Program, one of the key reforms passed in the wake of a slow and uneven response to West Africa's Ebola outbreak. ... The WHO’s new Health Emergencies Program is set up to provide rapid, predictable, and comprehensive support to countries and communities preparing for, facing, or recovering from a range of health emergencies, from political conflicts to natural disasters. It also unifies the WHO’s standards and processes to improve its response to health emergencies.

ZIKA VIRUS

Funding to combat Zika fails to advance in Senate

28 June - Funding to battle the Zika virus failed to advance in the U.S. Senate on Tuesday, as Democrats blocked a Republican proposal that they said would short-change the challenge posed by the mosquito-borne virus as well as other health priorities. The proposal to provide $1.1 billion in funding, which has already passed the Republican-controlled House of Representatives, got 52 votes, well short of the 60 votes needed in the Senate to clear a procedural hurdle. It was unclear when Congress would revisit the issue.

More U.S. babies with Zika-related birth defects reported by health agency

30 June - Three more babies have been born in the United States with birth defects likely linked to Zika virus infections, while another lost pregnancy was linked to the virus, according to figures updated by health officials on Thursday. That brings the U.S. totals, as of June 23, to seven babies with microcephaly or other Zika-related birth defects such as serious brain abnormalities, and five lost pregnancies from either miscarriage, stillbirth or termination. The figures were listed in a U.S. Zika pregnancy registry created earlier this
'Nobody is immune': Bracing for Zika's first summer in the U.S.

28 June - The mosquito-borne Zika epidemic is headed for its first summer in the United States. New York Times reporter Donald G. McNeil Jr. [says] that if the virus is ever going to hit hard in the U.S., 2016 will be the year. "No one in the population has had the disease before, so nobody is immune to it, nobody has antibodies to it," McNeil says. "After this year, a fair number of people will be immune, and each year immunity will grow." ... When it comes to the virus' transmission in the continental U.S., McNeil notes the Aedes aegypti mosquitoes, which carry the Zika virus, are mostly concentrated in Florida and the Gulf Coast. But, he adds, the fact that the virus can be transmitted sexually means that Zika has the potential to spread more broadly. "Scientists are just gobsmacked" by the virus' sexual transmission, McNeil says. "Viruses mutate like crazy, but one thing they don’t normally change is how they’re transmitted. ... You don't expect a mosquito-borne virus to become something that can be transmitted through an act of unprotected sex. But this one is." NPR

Study documents live Zika virus in urine and saliva

27 June - In findings that hint at other possible person-to-person Zika transmission routes, a research team from Brazil’s Fiocruz Institute said they have isolated live virus from the urine and saliva of acutely ill patients in Rio de Janeiro. ... Of nine patients sampled, 6 were from a group of pregnant women with rash, and 3—2 men and 1 woman—had sought care for their Zika symptoms at a Fiocruz acute care clinic. ... Live virus was found in two samples from different patients, one from urine and one from saliva. For patients who submitted both types of sample, urine viral loads were higher than in saliva.

In a move designed to speed development of a Zika virus vaccine, HHS today announced that its Office of the Assistant Secretary for Preparedness and Response (ASPR) will start developing one using its Center for Innovation in Advanced Development and Manufacturing (CIADM) in Baltimore.

To help Brazil boost its capacity to produce Zika virus vaccine, HHS on Jun 24 announced that it will join the World Health Organization (WHO) and other international partners to provide funding and technical assistance to Brazil’s Butantan Institute. CIDRAP

Two new vaccines ward off Zika in mice

28 June - Two new experimental vaccines protect mice against the Zika virus, a study out Tuesday shows. ... [Scientists] tested two kinds of vaccine on mice — one made from DNA and one from an inactivated form of the virus. With one dose, both vaccines prompted the creation of antibodies that shielded the animals from becoming infected when they were exposed to the virus. ... [The vaccines] still have to be tested in other animals and small groups of
people before they could be deployed widely. Complicating the challenge is that the main
goal of any vaccine will be to protect pregnant women — so the inoculation will have to pass
rigorous safety tests. The US Army developed the vaccine made from the inactivated
virus and hopes to start testing it in people later this year, said Col. Nelson Michael, ...
director of the US Military HIV Research Program at Walter Reed Army Institute of Research.
... Inovio's vaccine is a DNA vaccine, as is a fourth vaccine being designed by the National
Institute of Allergy and Infectious Diseases. In those vaccines, patients would receive DNA
that produces a protective protein. The vaccines presented in Tuesday's paper provided at
least two months of immunity in the mice, researchers said. They are exploring if and how
that could be extended and are also conducting experiments in pregnant animals. PBS

Zika animal studies yield new disease clues, optimism for vaccine

28 June - ... [Investigators] revealed that monkeys infected with the Zika strain currently
circulating in South America can resist infection when challenged by the same strain 10
weeks later. The team said the immune system priming from an earlier infection might
explain why birth defect outcomes haven’t been seen in Africa, where the virus has
circulated for many years. The more startling finding was dramatically longer infections in
pregnant animals. Monkeys that weren’t pregnant typically cleared the virus within 10 days
of infection, but virus persisted in the blood of the pregnant ones from 30 to 70 days.
CIDRAP

Zika sex research begins despite Congress funding impasse

30 June - ... The grave risks associated with Zika, along with its potential reach, are driving
U.S. health authorities to pursue research even though funding is mired in Congressional
gridlock. A study of sexual transmission risk is one example of science that health officials
said can’t wait for politics. Borrowing money earmarked for other programs, the U.S.
National Institute of Allergy and Infectious Diseases has started enrolling men infected with
Zika in Brazil and Colombia in the study to determine how long the virus remains
transmittable in semen. The study could take years to complete, but interim results could
help public health officials fine-tune their recommendations on sex. ... [At] least 10
countries, including the United States and France, have reported Zika infections in people
who had not traveled to an outbreak area but whose sexual partners had. Scientific
American
2009 H1N1 flu virus originated in central Mexico, study says

28 June - The 2009 H1N1 pandemic flu virus originated in pigs in a small region of central Mexico, researchers from the Icahn School of Medicine at Mount Sinai reported. The pigs hosted the parent virus for at least 10 years before it jumped to humans, they added. More than 17,000 people died from the H1N1 influenza pandemic in 2009-10. The first human cases were reported in Mexico. The investigators used genetic analysis to pinpoint when and where the virus jumped from animals to humans. "This finding highlights how the 2009 pandemic arose from a region not considered a pandemic risk," said the authors.

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

Pneumonia and Influenza (P&I) Mortality Surveillance for 2015-2016 Influenza Season Week 24 ending June 18, 2016:

- NCHS Mortality Surveillance Data: Based on NCHS mortality surveillance data available on June 23, 2016, 5.3% of the deaths occurring during the week ending June 4, 2016 (week 22) were due to P&I. This percentage is below the epidemic threshold of 6.7% for week 22.

- 122 Cities Mortality Reporting System: During week 24, 5.9% of all deaths reported through the 122 Cities Mortality Reporting System were due to P&I. This percentage was below the epidemic threshold of 6.2% for week 24. CDC

Department of Defense Global, Laboratory-Based Influenza Surveillance Program, 2014–2015 season

May 2016 - The Department of Defense (DoD) Global, Laboratory-Based, Influenza Surveillance Program is a DoD-wide, year-round, sentinel-based program that tests respiratory specimens collected from DoD beneficiaries presenting to military treatment facilities with influenza-like illness (ILI). ILI is defined as an illness characterized by fever (100.5 degrees F or greater) and cough or sore throat within 72 hours of seeking treatment. ...

... The 2014–2015 influenza season was dominated by influenza A(H3N2) viruses at the beginning of the season; however, beginning in Week 10, identifications of influenza B viruses were more numerous than for influenza A. Influenza activity peaked in Week 51, and influenza transmission was sustained for 42 out of 53 weeks of the season. A total of 6,432 specimens ... were collected from 103 locations. Of those submitted for routine surveillance, 2,058 were positive for influenza (32.7%); 1,231 were positive for other respiratory pathogens (19.6%); and 3,002 (47.7%) were negative. Medical Surveillance Monthly Report
H7N7 avian flu antibodies found in Italian poultry workers

27 June - Five people who worked on poultry farms during an H7N7 avian flu outbreak in 2013 tested positive for antibodies to the virus, according to a letter published late last week in *Emerging Infectious Diseases*. One million birds were culled after an outbreak of the highly pathogenic strain broke out across farms in Emilia-Romagna, Italy, in August of 2013. Workers wore protective face masks (including eye protection) and were monitored for symptoms during the 3-week outbreak. In December of 2013 serologic testing of 93 workers involved in the culling showed H7N7 antibodies in three workers who had conjunctivitis during the outbreak. Two other workers who were asymptomatic during the outbreak also tested positive for antibodies. Because serum samples were not collected from the asymptomatic people during the outbreak, however, the researchers do not know if their seropositivity was caused by infection acquired during the outbreak.

CIDRAP News Scan (second item)

NHRC: Febrile Respiratory Illness Surveillance Update

For 2016 Week 25 (through 25 June 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 elevated at MCRD San Diego and Fort Benning. Naval Health Research Center

WHO: Influenza Update

27 June - In temperate countries in the southern hemisphere, influenza activity increased steadily in the last weeks in South America and South Africa, but remained still low overall in most of Oceania. Influenza activity in the temperate zone of the northern hemisphere was back to inter-seasonal levels. WHO
A new treatment for dogs scared by thunder and fireworks

28 June - By some estimates, at least 40 percent of dogs experience noise anxiety, which is most pronounced in the summer. ... [This] month, the first drug approved by the Food and Drug Administration for canine noise aversion (a term encompassing mild discomfort to phobia) came on the market. The drug, Sileo, inhibits norepinephrine, a brain chemical associated with anxiety and fear response. ... The new canine noise aversion drug, Sileo, is actually a micro-amount of a medication approved as a sedative for minor veterinary procedures — a flavorless gel, measured in a syringe, that is squeezed between the dog's cheek and gum and absorbed within 30 minutes. Orion, the Finnish company that developed it, tested it on several hundred noise-averse dogs during two years of New Year's fireworks. Three-quarters of the owners rated the dogs' response as good to excellent; their pets remained unperturbed. The drug lasts several hours, after which another dose can be administered.

The New York Times

F.D.A. ruins raw cookie dough for everybody

29 June - ... [Even] if the dough is free of raw eggs, which you think might give you a pass, don't eat it. Yesterday, the Food and Drug Administration issued a message warning people not to eat raw dough because of a recent outbreak of E. coli linked to contaminated flour. So far, a reported 38 people in 20 states have been infected by a strain of bacteria called Shiga toxin-producing E. coli O121 found in flour. The infections began last December, and 10 of those infected have been hospitalized. ... Most people get better within a week, but in some cases, infections can lead to a type of kidney failure called hemolytic uremic syndrome. Those who are most vulnerable to severe illness include children under 5, older adults and people with weakened immune systems. Investigations by the Centers for Disease Control and Prevention and the F.D.A. traced the source of the outbreak to flour that was produced in November 2015 at the General Mills facility in Kansas City, Mo. The New York Times

Four multistate outbreaks of human Salmonella infections linked to small turtle exposure — United States, 2015

1 July - In August 2015, the Food and Drug Administration (FDA) notified CDC of a consumer complaint involving Salmonella Sandiego infection in a child (the index patient), who had acquired a small turtle (shell length <4 inches [<10 cm]) at an Alabama flea
market. The subsequent investigation ... identified four multistate *Salmonella* outbreaks. ... A total of 124 cases from 22 states were identified. Median patient age was 7 years (range <1–82 years); 51 patients (41%) were aged <5 years, and 59 (49%) were female. Among 108 patients with available information, 36 (33%) were hospitalized. Thirteen (36%) of the 36 hospitalized patients were aged <5 years. No deaths were reported. ... Among the 50 patients with reported turtle exposure, the median age was 3 years (range <1–77 years), 30 (60%) were aged <5 years, and 25 (50%) were female. Of the 50 patients with turtle exposure, 48 had information on hospitalization; 18 of the 48 (38%) were hospitalized. ... The high proportion of patients aged <5 years in these outbreaks emphasizes the risk for illness among young children with small turtles as pets. *Morbidity and Mortality Weekly Report*

top of page...

**WELLNESS**

**FDA approves Gilead drug that can treat all forms of hepatitis C virus**

29 June - Federal health officials have green-lighted the first pill that can treat all major forms of hepatitis C, a liver infection caused by the blood-borne hepatitis C virus (HCV) On Tuesday, the Food and Drug Administration (FDA) gave its approval to Gilead Sciences' combination pill Epclusa, the latest in a series of drug approvals that can reshape how the viral disease is treated. The new drug combines sofosbuvir, which was green-lighted by federal regulators in 2013, and the new drug velpatasvir. It is the first drug capable of treating all major forms of HCV. *Tech Times*

**Germs in the subway are the harmless kind**

28 June - ... With the cooperation of the Massachusetts Bay Transit Authority, researchers at Harvard swabbed seats, walls, poles, hand grips and ticket machines in the Boston transit system, and then did DNA analyses to figure out what kinds of organisms they had collected. ... All the surfaces were contaminated with generally innocuous human skin bacteria, including various strains of propionibacterium, corynebacterium, staphylococcus and streptococcus, among others. Some strains of these bacteria can cause disease under certain circumstances, but all are carried by healthy people and usually cause no problems. ... ["Even] though we think of it as dirty, the transit system has only the kind of microbes you run into shaking people's hands." *The New York Times*
How the humble orange sweet potato won researchers the World Food Prize

28 June - One summer day in 2012, on a long drive through northern Mozambique, I saw groups of men standing beside the road selling buckets filled with sweet potatoes. My translator and I pulled over to take a closer look. Many of the sweet potatoes, as I'd hoped, were orange inside. In fact, the men had cut off the tips of each root to show off that orange color. It was a selling point. This may not sound like much. In the United States, most sweet potatoes are orange-fleshed varieties. But in Africa, that's unusual and new. ... Those orange-fleshed sweet potatoes along the road that day represented the triumph of a public health campaign to promote these varieties — which, unlike their white-fleshed counterparts, are rich in Vitamin A. Today, that campaign got some high-level recognition at a ceremony at the U.S. State Department. Four of the main people behind it will receive the 2016 World Food Prize. NPR

Survey finds excess health problems in lesbians, gays, bisexuals

28 June - Gay, lesbian and bisexual individuals reported more health problems than straight men and women, in a large U.S. survey. For the first time since its launch in 1957, the National Health Interview Survey in 2013 and 2014 included a question about sexual orientation. With nearly 69,000 participants, the survey revealed that lesbian, gay and bisexual adults "were more likely to report impaired physical and mental health, heavy alcohol consumption, and heavy cigarette use, potentially due to the stressors that (they) experience as a result of interpersonal and structural discrimination," researchers wrote. ... While gays and lesbians reported worse psychological distress than heterosexuals, bisexual people suffered the most, the survey showed. Reuters

The sound of your voice may diagnose disease

30 June - ... A growing body of evidence suggests that an array of mental and physical conditions can make you slur your words, elongate sounds, or speak in a more nasal tone. They may even make your voice creak or jitter so briefly that it’s not detectable to the human ear. It’s still not absolutely clear that analyzing speech patterns can generate accurate — or useful — diagnoses. But the race is on to try. The latest player to enter the arena is Sonde Health [that] wants to develop software for consumers that can screen for depression as well as respiratory and cardiovascular conditions. ... Even the Army is interested: Earlier this month, it launched a partnership with MIT researchers at the same lab working on the Sonde technology, with the goal of developing an Food and Drug Administration-approved device to detect brain injury. Scientific American

top of page...
Central African Republic: Children face 'staggeringly high' hunger in conflict-hit Central African Republic

29 June - ... Across the Central African Republic, up to 60 children die every day due to malnutrition, according to aid organization Action Against Hunger (ACF), which runs the unit. Three years of conflict have damaged many health facilities or left them empty and disrupted farming in a country where three in four people rely on agriculture to survive. Half of the population do not have enough food - a number which has doubled since last year, according to the United Nations World Food Programme. Reuters

World Bank contributes to improved disease surveillance and health systems in West Africa

29 June - In Guinea, Sierra Leone and Senegal, more than 33.3 million people will benefit from stronger health systems and more effective disease surveillance systems through US$110 million in International Development Association (IDA) financing, approved yesterday by the World Bank Group’s Board of Executive Directors. This is the first in a series of investments planned under the Regional Disease Surveillance Systems Enhancement Program (REDISSE), which aims to address systemic weaknesses within the human and animal health sectors that hinder effective disease surveillance and response. ReliefWeb

Iraq: The failure in Fallujah

28 June - As the Iraqi military announced (not for the first time) that it had finally routed the so-called Islamic State in Fallujah, the city’s former residents can be forgiven for not breathing a collective sigh of relief. After 18 months under IS rule, a siege by Iraq’s armed forces that left food and medicine in dangerously short supply, and a perilous flight into the desert, many of the newly displaced are now living without tents, enough water, or latrines. Humanitarians on the ground have said the response to the displacement of almost the entire city – between 60,000 and over 80,000 people depending on who is counting – has been disorganised, at best. ... As they struggle to play catch-up and the long-awaited march on Mosul draws closer, ... many humanitarians are worried that they are woefully underprepared for the challenge. IRIN
Saudi Arabia: As more Saudi MERS noted, study details risks in pregnant patients

29 June - Saudi Arabia's Ministry of Health (MOH) reported two new MERS cases today, both tied to a large hospital outbreak in Riyadh ... and a study highlighted poor outcomes in pregnant patients. The Saudi MERS-CoV (Middle East respiratory syndrome) cases both involve healthcare workers and are linked to King Khalid University Hospital in Riyadh. ... To date, 28 cases have been connected to the hospital. Meanwhile, a study ... described five cases of the disease in pregnant women, painting a grim picture of maternal and fetal outcomes. ... The study authors identified five pregnant MERS patients reported to the WHO from Saudi Arabia between November 2012 and February 2016, two of whom died. All five women were in their second or third trimester when they acquired MERS. One infection resulted in a stillbirth at 34 weeks gestation, and one infant died shortly after an emergency caesarian section at 24 weeks' gestation. One patient recovered from the disease and delivered a healthy baby at term. Two of the women were healthcare workers and were exposed to MERS by known cases of the disease. Two women had no known exposure risk, and one woman was an occupational contact of a patient. None of the women had any underlying health conditions. CIDRAP

Saudi Arabia reports 2 new MERS cases, 1 linked to camels

28 June - Saudi Arabia's Ministry of Health (MOH) reported two new MERS cases today, and a death in a previously reported patient. The new patients and the deceased were elderly Saudi men who were not healthcare workers. An 84-year-old man in Hufoof is in stable condition after experiencing symptoms. His illness is considered primary, meaning he likely did not contract the disease from another person. The other patient is a 75-year-old man in Al Aflaj; he also had symptoms and is in stable condition. The MOH said he had contact with camels. In addition, the MOH said a 72-year-old man from Hail died from MERS-CoV (Middle East respiratory syndrome coronavirus). He had preexisting illnesses when he was diagnosed. CIDRAP News Scan (first item)

Qatar: Middle East respiratory syndrome coronavirus (MERS-CoV)

29 June - On 12 June 2016, the National IHR Focal Point of Qatar notified WHO of 1 additional case of Middle East respiratory syndrome coronavirus (MERS-CoV) infection. ... The patient, who has no comorbidities, tested positive for MERS-CoV on 9 June. He has a history of frequent contact with camels and consumption of their raw milk. The patient also has a history of travel to Saudi Arabia on 28 May. He is currently in stable condition admitted to a negative pressure isolation room on a ward. ... Globally, since September 2012, WHO has been notified of 1,769 laboratory-confirmed cases of infection with MERS-CoV, including at least 630 related deaths. WHO
United Kingdom: Brexit 'will make NHS staff shortages worse'

30 June - The vote to leave the EU risks making staffing shortages in the NHS worse, health leaders are warning. The NHS Confederation said doctors and nurses from Europe may be put off accepting jobs after the referendum. If that happened the NHS could face some major problems, it said. ... A report earlier this year from the House of Commons Public Accounts Committee warned the front line in England may be as many as 50,000 staff short - out of a workforce of slightly more than 800,000 clinical staff. Ms Zanon also said Brexit could have an impact on medical research and the free healthcare Britons received when abroad. But she said the workforce issue was the most pressing, as the impact could be felt straightaway. BBC News

top of page...

U.S.: 12.5% US kids susceptible to measles

24 June - In the first rigorous estimate of the number of US children and adolescents susceptible to measles, researchers put the overall number at 12.5%, with the level sharply higher in children age 3 and younger. ... They noted that though imported cases have sparked outbreaks in the United States, they haven’t led to sustained transmission. However, the team noted that the susceptible number accumulates with each birth cohort. Their analysis accounted for vaccine effectiveness, infant protection from maternal antibodies, and immunity loss after childhood cancer treatment. Vaccination levels are high in the United States, approaching or higher than the 92% herd immunity benchmark, they found. However, the group estimated that a drop to the level seen in 2009 would add nearly 1.2 million children and adolescents to the group susceptible to measles. CIDRAP News Scan (fifth item)

U.S.: Battered by storms, West Virginia struggles to recover

26 June - ... The storms that swept West Virginia last Thursday created historic flooding and in the aftermath left hundreds of homes, buildings, bridges, roads and vehicles destroyed. The storms were tied to at least 24 deaths. The authorities said on Sunday that all of the people reported missing had been accounted for except in one county, Greenbrier, which suffered the greatest death toll in the flooding. Sixteen deaths were reported in Greenbrier County, all but one of them in the small town of Rainelle. The New York Times
U.S.: CDC report details public health hazard in Flint, Michigan

27 June - The prevalence of blood lead levels (BLLs) at or above 5 μg/dL in children younger than age 5 years in Flint, Michigan, closely track with the use of drinking water from a local source, researchers from the Centers for Disease Control and Prevention (CDC) conclude in a study published June 24 in the Morbidity and Mortality Weekly Report. After city officials switched from the Detroit Water Authority (DWA) to the Flint Water System (FWS), children were 46% more likely to have BLLs μg/dL than before the switch. [The lead] investigator ... suggests the spike in BLLs was caused by Flint Water System authorities’ failure to use corrosion control, the absence of which is thought to have permitted lead to enter drinking water as a result of corrosion of lead pipes and or of lead solder used in "lead free" plumbing. Medscape

U.S.: Inside a secret government warehouse prepped for health catastrophes

27 June - Thousands of lives might someday depend on [the Strategic National Stockpile at the Centers for Disease Control and Prevention], which holds all kinds of medical supplies that the officials would need in the wake of a terrorist attack with a chemical, biological or nuclear weapon. The location of these warehouses is secret. How many there are is secret. (Although a former government official recently said at a public meeting that there are six.) And exactly what's in them is secret. "If everybody knows exactly what we have, then you know exactly what you can do to us that we can't fix," says Burel. "And we just don't want that to happen." What he will reveal is how much the stockpile is worth: "We currently value the inventory at a little over $7 billion." NPR

U.S.: Lethal buzzers - America’s six most dangerous mosquitoes

28 June - ... [Among] the more than 3,000 species of the insect worldwide, only two in the Americas are actually known carriers of [Zika] virus: the yellow fever mosquito (Aedes aegypti) and the Asian tiger mosquito (Aedes albopictus). The potential range of the two species in the United States helps explain where Zika could be a threat. The yellow fever mosquito, for instance, prefers the hot and humid climate in Florida and the southeastern part of the country. But it has colonized states as far west as California and Hawaii, and has the potential to live as far north as Connecticut in warmer weather. ... The Asian tiger mosquito, meanwhile, also favors tropical and subtropical locales but can withstand cooler temperatures, so it can range farther. In summertime, the insect can sometimes even be found in northern states like Maine and Minnesota. ... But Zika is not the only disease that mosquitoes can carry. Other threats include West Nile virus, dengue fever and various types of encephalitis. The New York Times
U.S.: Low prices for vaccines can come at a great cost

27 June - ... [The] price of childhood vaccines may be too low for our own good because it contributes to shortages. Vaccine shortages have popped up in the United States many times over the past 50 years. In 2001, eight of 11 recommended childhood vaccines were unavailable or in short supply. A recently published study by the economist David Ridley and other Duke University researchers found that between 2004 and 2014, an average of nearly three out of 22 vaccines were in short supply in the United States. In 2007, one-third of vaccines were. The New York Times

U.S.: Strategic National Stockpile report discusses possible improvements

28 June - The National Academies today posted a report on a 2-day workshop that discussed ways to improve the Strategic National Stockpile (SNS). ... Three questions framed the meeting: (1) Should the SNS should be used to treat diseases that emerge naturally, such as Zika? (2) Should SNS contents be shared internationally? (3) Should the SNS be used to gather routine drugs that are often in short supply in medical practices? CIDRAP News Scan (fourth item)

U.S.: Suicide rates by occupational group — 17 States, 2012

1 July - ... From 2000 to 2012, rates of suicide for persons aged ≥16 years increased 21.1%, from 13.3 per 100,000 to 16.1. Understanding suicides by occupational group provides an opportunity for prevention, but such data have not been reported recently for a broad population or examined by sex and occupation classification. Analysis of 2012 National Violent Death Reporting System data from 17 states indicated that workers in the farming, fishing, and forestry occupational group had the highest rate of suicide (84.5 per 100,000), followed by workers in construction and extraction (53.3), and installation, maintenance, and repair (47.9). Among males, farming, fishing, and forestry also accounted for the highest rates of suicide (90.5 per 100,000), whereas the highest rate among females (14.1) was among workers in the protective service occupational group. Morbidity and Mortality Weekly Update

U.S.: Supreme Court strikes down Texas abortion access law

27 June - In a dramatic ruling, the Supreme Court on Monday threw out a Texas abortion access law in a victory to supporters of abortion rights who argued it would have shuttered all but a handful of clinics in the state. The 5-3 ruling is the most significant decision from the Supreme Court on abortion in two decades and could serve to deter other states from passing so-called "clinic shutdown" laws. ... Justice Stephen Breyer wrote the majority opinion, which was joined in full by Kennedy. Breyer wrote that despite arguments that the
restrictions were designed to protect women's health, the reality is that they merely amounted to burdening women who seek abortions. "There was no significant health-related problem that the new law helped to cure," Breyer wrote. "We agree with the District Court that the surgical-center requirement, like the admitting-privileges requirement, provides few, if any, health benefits for women, poses a substantial obstacle to women seeking abortions, and constitutes an "undue burden" on their constitutional right to do so." CNN

China: UN - China synthetic drugs trade 'out of control'

28 June - A new United Nations report has called China out on its production of new kinds of synthetic drugs, which it says is taking place at a faster rate than can be controlled. Criminals in Hong Kong are in turn smuggling them and selling them to lucrative markets worldwide, according to the report. In a news conference on Sunday, Hong Kong police showcased their seizure of 95kg of cocaine with a street value of more than $13m, the city's largest confiscation of cocaine in a single police case since 2013. Karen Joe-Laidler, a professor at the University of Hong Kong studying the city's drug trends, said it is not just cocaine now flooding the Hong Kong market. "Over the past 20 years there has been a dramatic shift in the types of drugs that people use. The marketplace for drugs in Hong Kong is much more diverse now," Laidler said. Al Jazeera

India: Welcome to India, a country with 18 million slaves

28 June - ... There are an estimated 18 million people enslaved in India, according to the annual Global Slavery Index, which was published last month by the Walk Free Foundation. That's more than any other country and far outstrips China, which followed with about three million of the global total of 46 million people enslaved through "human trafficking, forced labour, debt bondage, forced or servile marriage or commercial sexual exploitation". Authorities in India recognise the problem, and the Ministry of Women and Child Development has written a new human trafficking law. But some civil society groups say the draft legislation is too focused on sex trafficking and doesn't go far enough to protect enslaved domestic workers or crack down on employment agencies that sell women into domestic work with very little or no pay. IRIN

Indonesia: Lawmakers seek seizure of unapproved vaccines amid fake drug scare

27 June - Indonesian lawmakers on Monday urged authorities to seize from hospitals and health clinics all vaccines made by unapproved manufacturers, after police exposed a syndicate selling fake child vaccines for more than a decade. In a country where counterfeit
drugs are widespread, the case deals a blow to government health regulators whom many believed to have kept a tight leash on the distribution of vaccines. Authorities have shut some private health facilities after police smashed a drug-making ring last week that sold fake and potentially harmful booster vaccines for measles, hepatitis B and other viruses in Jakarta and the island of Java. Reuters

**Cuba reports no Zika transmission since March; dengue all but eliminated**

28 June - Cuba has successfully held off the Zika epidemic and in the process all but eliminated dengue fever and other mosquito-carried illnesses, state-run media reported on Tuesday. Public Health Minister Roberto Morales Ojeda told a Council of Ministers meeting that a series of measures taken this year to eliminate the *Aedes* strain of mosquito that carries Zika and other viruses had drastically reduced infestations. There had been no infections, he said, since one locally transmitted case, the country’s 14th, was reported on March 15. Cuba has called out the military to help fumigate, activated neighborhood watch groups to check there is no standing water, where the insects breed, instituted health checks at airports and other entry points to the Caribbean island, among other measures. Reuters

**El Salvador: Murder and malady – El Salvador's sugarcane workers**

29 June - ... [A team of researchers is] investigating an epidemic that has failed to catch the eye of the mass media, something insidious that has killed an estimated 20,000 people in 10 years across Central America and accounts for more deaths in El Salvador and Nicaragua than Aids, leukemia and diabetes combined. It’s something called “Mesoamerican Nephropathy”, also known as CKDu, a chronic form of kidney disease whose cause the medical community is still trying to determine. ... [For] the first time, there is a growing medical consensus that the harsh working conditions - the heavy labour and heat stress - are a major cause of this mysterious kidney disease. Long hours of extremely physically challenging work in temperatures over 40C with little access to water cause acute kidney damage. Over time, this can develop into chronic kidney disease, which is fatal. Al Jazeera
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