8 September 2017

Army Public Health Weekly Update

Army Public Health Center

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U.S. MILITARY

Military scientists are working to help wounded warriors regrow their limbs

1 September - Wounded troops may soon be able to regrow muscle, bone and tissue, and essentially regenerate their lost limbs, military scientists say. Researchers are making progress on synthetic grafts to start regrowing muscle as well as nerve, vascular and connective tissues, according to a release Tuesday from the Military Health System. “We’re not quite there yet,” said Army Lt. Col. David Saunders, extremity repair product manager for the Army Medical Materiel Development Activity at Fort Detrick, Maryland. Army Times

Multiple sclerosis among service members of the active and reserve components of the U.S. Armed Forces and among other beneficiaries of the Military Health System, 2007–2016

August 2017 - During 2007–2016, a total of 2,031 active component service members received incident diagnoses of multiple sclerosis (MS), for an overall unadjusted incidence rate of 14.9 cases per 100,000 p-yrs. The average overall unadjusted rate among reserve/guard members during this surveillance period was 6.9 cases per 100,000 persons. In both components, women had a higher overall incidence of MS than men across all race/ethnicity groups. Overall rates of MS were highest among non-Hispanic black service members. Crude annual incidence rates among active component members decreased slightly during 2007–2016, while rates among reserve/guard members were relatively stable. ... Annual numbers of incident cases of MS decreased among non–service member Military Health System beneficiaries during this period. The median age at MS case-defining diagnosis was 32 years among active component members, 37 years among reserve/guard members, and 48 years among non–service member beneficiaries. Medical Surveillance Monthly Report
National Preparedness Month

The Army supports the National Preparedness Month (NPM), a national campaign of action to prepare, now and throughout the year. This campaign emphasizes the importance of preparedness and serves as a reminder of the simple actions taken to prepare for any disaster.

The Army’s focus remains steadfast to educate, empower, and involve the Army community in preparedness activities that enhance the Army’s resiliency and increase the nation’s readiness for all-hazards events. To help prepare the Army Community, Ready Army encourages everyone to be informed, make a plan, build a kit, and get involved.

This year’s NPM theme is Disasters Don’t Plan Ahead. You Can.

U.S. senators calling for Defense Department to address water woes near military installations

5 September - Colorado U.S. Sen. Michael Bennet was among several senators to sign a letter imploring the Department of Defense to take action on chemicals that have contaminated water across the country. ... Chemicals in firefighting foam used on military installations ... have contaminated groundwater and drinking water wells located nearby. ... In the letter Tuesday, which can be read [here](https://kkv.tv), the senators asked the DoD to investigate and clean up the chemicals. ... The letter called for a study on the health issues exposure to PFAS (per- and polyfluoroalkyl substances) could cause; to budget for "assessment, investigation and remediation activities"; and to find firefighting alternatives that don’t involve the chemicals. According to a statement released to media alongside the letter, the DoD has found more than 400 military installations with a known or suspected release of PFAS. [KKTV](https://kkv.tv)

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GLOBAL

Effectiveness of a third dose of MMR vaccine for mumps outbreak control

7 September - During an outbreak among vaccinated students at the University of Iowa, health officials implemented a widespread MMR vaccine campaign. We evaluated the effectiveness of a third dose for outbreak control and assessed for waning immunity. ... Before the outbreak, 98.1% of the students had received at least two doses of MMR vaccine. During the outbreak, 4783 received a third dose. The attack rate was lower among the students who had received three doses than among those who had received two doses (6.7 vs. 14.5 cases per 1000 population, P<0.001). Students had more than nine times the risk of mumps if they had received the second MMR dose 13 years or more before the outbreak. At 28 days after vaccination, receipt of the third vaccine dose was associated with a 78.1% lower risk of mumps than receipt of a second dose. [The New England Journal of Medicine](https://nejm.org)

Infectious mosquitoes are turning up in new regions

7 September - A mounting number of citations on a popular disease-tracking website suggests that mosquitoes may be moving into new ecological niches with greater frequency. The website, ProMED mail, has carried more than a dozen such reports since June, all involving mosquito species known to transmit human diseases. Most reports have concerned the United States, where, for example, Aedes aegypti — the yellow fever mosquito, which also spreads Zika, dengue and chikungunya — has been turning up in counties in California and Nevada where it had never, or only rarely, been seen. Other reports have noted mosquito species found for the first time on certain South Pacific
islands, or in parts of Europe where harsh winters previously kept them at bay.

The New York Times

Researchers review the clinical potential of senolytic drugs on aging

4 September - Researchers are moving closer to realizing the clinical potential of drugs that have previously been shown to support healthy aging in animals. Aging experts say that, if proven to be effective and safe in humans, these drugs could be ‘transformative’ by preventing or delaying chronic conditions as a group instead of one at a time. The drugs being tested are called senolytic agents, because they target senescent cells. These are cells that have stopped dividing and secrete toxic chemicals that damage adjacent cells. Accumulation of senescent cells, which increases with age, is associated with chronic conditions, including diabetes, cardiovascular disease, most cancers, dementia, arthritis, osteoporosis, and frailty. ScienceDaily

Triple threat: New pneumonia is drug-resistant, deadly and contagious

2 September - ... Doctors in Hangzhou in southeastern China have detected a type of pneumonia that is both highly drug-resistant and very deadly. It also spreads easily. The bacterium — a type of Klebsiella pneumoniae — killed five people in an intensive care unit in Hangzhou in 2016, researchers reported Tuesday in the journal Lancet Infectious Diseases. "This fatal outbreak happened in a brand new hospital with very good hygiene," says microbiologist Sheng Chen, who co-led the study at the Hong Kong Polytechnic University. ... The microbe can fight off all drugs available in China, Chen says. "We don’t have anything in China to stop it," he says. "There is a drug available in the U.S. that should be effective against it, but we haven’t tested it yet." ... These bacteria ... are a fusion of two dangerous forms. ... The first is a drug-resistant form, called CRE, which can fight off even the toughest antibiotics. ... The second type of K. pneumoniae causes a very severe form of the disease. ... This hypervirulent form ... causes more damage to the body than other strains do. It can spread through communities. And it can even sicken young, healthy adults, Chen says. NPR

Tularemia: Molecular map shows how to disable potential bioweapon

6 September - ... American scientists studying F. tularensis recently mapped out the complex molecular circuitry that enables the bacterium to become virulent. The map reveals a unique characteristic of the bacteria that could become the target of future drug development. ... "Now we have the coordinates for stopping one of the most infectious agents known to man. By having all of these pieces, and understanding how they fit together, we can design new drugs that can shut down virulence," said Maria A. Schumacher, Ph.D., senior study author and the Nanaline H. Duke Professor of Biochemistry at the Duke University School of Medicine. Outbreak News Today
HURRICANE IRMA

Hurricane Irma blasts past Puerto Rico with 180-mph winds; risk rises for Florida

7 September - Hurricane Irma is bringing death and destruction to the Caribbean and raising alarm in Florida, where the chance of a direct impact continues to rise. The storm is blamed for at least 10 deaths; thousands of people are being told to get out of its way. Irma brought strong winds and flooding to Puerto Rico and the Virgin Islands last night. Its dangerous eye passed north of Puerto Rico’s main island — possibly sparing the area from the worst of the 185-mph winds that wreaked horrible destruction in Saint Martin, Anguilla, and Barbuda on Wednesday. "We are in a state of siege," Daniel Gibbs resident of the French territorial council for Saint Martin and Saint Barthelemy, tells Radio Caraibes International. "95 percent of the territory has been destroyed," Gibbs said, echoing the assessment of Antigua and Barbuda Prime Minister Gaston Browne, who told CNN Barbuda is now "barely habitable" after Irma’s eye hit the island early Wednesday. Floodwaters have swamped cars and houses in Puerto Rico, where seven rivers are now running above their flood levels, the National Weather Service office in San Juan says. NPR

Hurricane Irma, churning through Caribbean, hits Turks and Caicos

8 September - Hurricane Irma, a Category 5 storm with sustained winds of up to 175 miles an hour, continued to tear through the Caribbean on Thursday, heading for the Bahamas and the northern coast of Cuba, according to officials. The death toll from the storm was at least seven as of Thursday afternoon, but the authorities warned that the number could rise as emergency crews reached flooded areas and as communications improved. The hurricane is expected to hit the Florida Keys and South Florida starting Saturday evening, said Kevin Scharfenberg, a meteorologist with the National Weather Service. A second storm, Jose, strengthened into a Category 3 hurricane in the Atlantic Ocean and could hit Antigua and Barbuda, which have suffered extensive flooding and wind damage from Irma, according to the National Hurricane Center. ...

- Half of the 100,000 residents of Antigua and Barbuda have had their homes destroyed or heavily damaged, the prime minister said.
- The governor of Puerto Rico said at a news conference that electrical service had been restored to 144,000 households — which still leaves nearly a million in the dark.
- Government offices, banks, stores and schools have been ordered shut in Haiti, officials said.
- Officials in Florida have issued evacuation orders, including mandatory ones for all of Monroe County and for parts of Miami-Dade, Broward, Palm Beach, Pinellas and other counties. ...

Hurricane Irma slammed into Grand Turk on Thursday evening, ripping off dozens of
residential roofs, flooding streets, snapping utility poles and causing an island-wide blackout. It also damaged the roof of the hospital in Cockburn Town, the capital of Turks and Caicos, a British overseas territory. ... By the evening, Providenciales, the most populous of the Turks and Caicos's 40 islands, was experiencing howling winds, rough seas and steady rain. Hurricane shelters across the island were full. *The New York Times*

**Twin megastorms have scientists fearing this may be the new normal**

7 September - One week after the record deluge in Texas, the biggest hurricane ever measured in the mid-Atlantic is tearing through the Caribbean. Hurricane Irma, a category-five storm, is destroying homes and threatening lives in the Leeward Islands with 185mph winds. ... [F]or many scientists they are a worrying sign of a “new normal” in which extreme weather events become more intense as a result of manmade climate change. Rather than expressing astonishment, they say policymakers need to strengthen long-term countermeasures and act more effectively on reducing carbon emissions. ... [T]here is strong evidence that warming temperatures and rising sea levels are increasing the destructive power of storms. ... Since records began in 1851, only three category five hurricanes have made landfall in the US. Following Harvey, which was a category four hurricane at its peak, a second major storm of this size in one season would be unprecedented, according to Weather Underground. *MSN*

**U.S. military preparations for Hurricane Irma now include four Navy ships and thousands of troops**

6 September - The U.S. military began preparing in earnest for Hurricane Irma on Wednesday, readying four Navy ships for potential disaster relief while moving aircraft and U.S. troops in advance of the arrival of the Category 5 storm. ... The Navy also is preparing to dispatch a second contingent of amphibious ships, the USS Iwo Jima and the USS New York, if they are needed. They have departed Naval Station Mayport in Jacksonville, Fla., to be loaded with disaster-relief equipment in Norfolk. ... The National Guard Bureau has alerted thousands of Guard members that they may be needed, Davis said. The National Guard has about 5,200 members in Puerto Rico, 650 in the U.S. Virgin Islands and more than 7,000 in Florida, all of whom are in the path of the storm. Scott activated the Florida National Guard on Tuesday, and anticipated that the entire force would be on duty by Friday. *The Washington Post*
Colombian case-control study builds support for Zika–GBS link

6 September - On the heels of similar findings from Brazil last week, a case-control study from Colombia found more evidence of a link between Zika illness and Guillain–Barre syndrome (GBS) and a much higher incidence of the condition in older people. … They interviewed and tested 47 patients with GBS who were reported to health officials in Barranquilla, Colombia from Oct. 1, 2015, to Apr. 2, 2016. The team compared the findings with age-range matched controls from the same neighborhood as each GBS patient. Incidence of GBS was 10 times higher in people age 60 and older compared with those younger than 20. … CIDRAP News Scan (third item)

Sanofi stops work on two Zika vaccines

6 September - Drugmaker Sanofi SA has ended its development of two Zika virus vaccines, citing a decline in new infections and limits on U.S. government funding, in a move that illustrates the challenges in sustaining research in emerging infectious diseases after major outbreaks subside. A division of the U.S. Department of Health and Human Services, the Biomedical Advanced Research and Development Authority, or BARDA, informed the French company’s Sanofi Pasteur vaccine unit in August that the agency had reviewed the Zika projects it was funding and “decided to focus on a more limited set of goals and deliverables.” … Sanofi had been helping to study whether a vaccine which contains an inactivated virus and Sanofi had been helping to study whether the vaccine was safe and effective in people, with a $43 million BARDA grant. … Fox Business News

Zika virus used to treat aggressive brain cancer

5 September - A harmful virus that can cause devastating brain damage in babies could offer up a surprising new treatment for adult brain cancer, according to U.S. scientists. Zika is still a threat, but experts believe Zika virus could potentially be injected into the brain at the same time as surgery to remove life-threatening tumours, the Journal of Experimental Medicine reports. … BBC News
AAP: Still a 'no' to FluMist for upcoming flu season

5 September - Recommendations for the 2017-2018 influenza season remain largely unchanged, with FluMist left off the recommended influenza vaccinations for the second year in a row, according to the American Academy of Pediatrics (AAP). An AAP policy statement advises that everyone age 6 months and older should receive the influenza vaccine by the end of October. ... In terms of flu strains in the vaccine itself, the committee members said that the 2017-2018 influenza A (H1N1) strain differs from the 2016-2017 vaccine, but the influenza A (H3N2) and influenza B strains remain unchanged. The quadrivalent vaccine contains an additional B virus strain. MedPage Today

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

2016-2017 Influenza Season Week 34 ending August 26, 2017

Novel Influenza A Virus: One additional human infection with a novel influenza A virus was reported by Ohio during week 34. The person was infected with an influenza A (H1N2) variant (H1N2v) virus and reported exposure to swine in a fair setting during the week preceding illness onset. This patient was younger than 18 years of age, was not hospitalized, and has fully recovered from their illness.

Pneumonia and Influenza (P&I) Mortality Surveillance: Based on National Center for Health Statistics (NCHS) mortality surveillance data available on August 31, 2017, 5.1% of the deaths occurring during the week ending August 12, 2017 (week 32) were due to P&I. This percentage is below the epidemic threshold of 5.9% for week 32. CDC

ECDC: Flu News Europe


• Influenza activity was at out-of-season levels in all countries. All reporting countries continued to report low intensity of influenza activity.
• Influenza viruses were detected sporadically both in sentinel and non-sentinel specimens, with both influenza type A and B viruses detected.
• For week 34/2017, data from the 20 countries or regions reporting to the EuroMOMO project indicated all-cause mortality to be at expected levels. European Center for Disease Prevention and Control/WHO

Mid-season influenza vaccine effectiveness estimates for the 2016 – 2017 influenza season

28 August – Findings:
• For all influenza types: VE was 42%, as found by AFHSB-Air Force Satellite Cell, similar to NHRC’s overall VE of 45%.
- Influenza A (H3N2) VE was 42% by AFHSB-AF estimation and VE was 46% as estimated by NHRC.
- VE for influenza B was slightly higher at 53% as estimated by AFHSB-AF.
- AFHSB analysis found that VE against influenza A was 3% and VE against influenza A (H3N2) was 33%.

NHRC: Operational Infectious Diseases - Weekly Surveillance Report

31 August - Febrile respiratory illness cases:
- Military Recruits - 71 positive of 215 tested
- CDC Border Infectious Disease Surveillance and Zika Surveillance - 5 positive of 15 tested
- DoD Beneficiaries – 9 positive of 30 tested.

Update: Increase in human infections with novel Asian lineage avian influenza A(H7N9) viruses

8 September - The current Asian lineage avian influenza A(H7N9) virus (Asian H7N9) epidemic in China is the fifth and largest epidemic on record. Human infections with Asian H7N9 virus were reported from more provinces, regions, and municipalities in China during the fifth epidemic than in the previous four epidemics combined. Because of antigenic variation between the Yangtze River Delta lineage viruses, the newly emerged high pathogenic Asian H7N9 viruses, and 2013 candidate vaccine viruses, new candidate vaccine viruses have been produced. These candidate vaccine viruses, as well as others being developed by other World Health Organization Collaborating Centers for Influenza, could be used for vaccine production, clinical trials, stockpiling, and other pandemic preparedness purposes, based on ongoing public health risk assessment.

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

During 30 July - 2 September 2017 (Surveillance Weeks 31 - 35), a total of 72 specimens were collected and received from 34 locations. Results were finalized for 56 specimens from 31 locations. During Weeks 34 and 35, one influenza A(H3N2) virus was identified during each week. No influenza viruses were identified during Weeks 31 - 33. Approximately 7% of specimens tested positive for influenza during Week 34 and 8% during Week 35. The influenza percent positive for the season is currently 34%.

WHO: Influenza Update

4 September - In the temperate zone of the southern hemisphere and in some countries of South and South East Asia, high levels of influenza activity continued to be reported.
Central America and the Caribbean influenza activity continued to be reported in a few countries. Influenza activity remained at low levels in the temperate zone of the northern hemisphere. Worldwide, influenza A(H3N2) viruses are predominating. WHO

VETERINARY/FOOD SAFETY

Contaminated eggs found in 40 countries as EU ministers meet: DPA

5 September - Eggs contaminated with the insecticide fipronil have been discovered in 40 countries, including 24 of the European Union’s 28 member states, German news agency DPA reported on Tuesday, without citing its sources. Millions of eggs have been pulled from European supermarket shelves, though some national regulators have voiced concern that many contaminated eggs have already entered the food chain, mainly through processed products such as biscuits, cakes and salads. ... DPA said a spokeswoman for the European Commission confirmed that the only EU member states so far unaffected are Lithuania, Portugal, Cyprus and Croatia. The non-EU states in which contaminated eggs have been discovered include the United States, Russia, South Africa and Turkey, DPA reported. Dutch and Belgian authorities traced the source of the insecticide to a supplier of cleaning products in the Netherlands. Two Dutch men who ran the cleaning company Chickfriend were arrested last month. Reuters

Feds link 2 more Salmonella outbreaks to imported papayas

1 September - Increased testing of Maradol papayas sourced from Mexico in the wake of a multistate outbreak has turned up two separate smaller Salmonella outbreaks connected to two more of the country’s growers, federal officials announced today. In an update, the US Food and Drug Administration (FDA) said Salmonella samples obtained from shipments from the two other growers match samples from some sick patients. It added that, to its knowledge, there are no papayas from the two additional farms currently on the US market. Fruit shipments that tested positive were never released for sale to US consumers, and earlier products from the growers would be past their shelf life. ... Also today, the US Centers for Disease Control and Prevention (CDC) said 28 more illnesses have been reported in the main outbreak, which now totals 201 illnesses. CIDRAP
Quorn agrees to change labels to reveal main ingredient is mold

7 September - Described by critics as being made from “vat-grown fungus,” Quorn Foods Inc. products are getting new labels prominently declaring they contain mold. The new label language is part of a class action settlement agreement between the company and a woman who filed a civil lawsuit on behalf of herself and anyone else in the United States who bought the products from Jan. 26, 2012, through Dec. 14, 2016. A final hearing on the class action lawsuit before U.S. District Court Judge Dolly M. Gee on Sept. 1 sealed the language for the warning labels and cash reimbursements for consumers who bought the Quorn products. Food Safety News

Salmonella contamination forces massive egg recall in Israel

6 September - Israel has ordered the recall of about 11 million shell eggs out of fear they may be contaminated with Salmonella. Moshav Goren in Western Galilee produced the eggs. The Israeli egg recall is apparently not related to the withdrawal of millions of European eggs earlier in the summer. Food Safety News

Study: Single introduction of canine flu in Chicago caused 2015 outbreak

1 September - ... In February of 2015, dogs in Chicago shelters and training schools began showing symptoms of H3N2, including cough and moderate respiratory distress. Within 2 months, the virus spread to neighboring states. By April, scientists at the University of Wisconsin-Madison performed genetic analyses of the virus, finding it identical to a circulating strain of H3N2 from South Korea. Further testing showed the strain capable of viral shedding for up to 3 weeks, prompting researchers to conclude that likely introduction of the disease was through an animal, and not fomites (which can transmit live H3N2 virus for only up to 48 hours). Thus, they hypothesized the disease was brought to America through dogs rescued from South Korean meat markets, where up to 19% of dogs are infected with H3N2. CIDRAP Flu Scan (third item)

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WELLNESS

Drug combination reduces risk of HIV infection among teen males

5 September - A National Institutes of Health network study has confirmed that a combination of two drugs taken daily to reduce the chances of HIV infection among high-
risk adults also works well and appears safe in males ages 15 to 17 years. Truvada, a single pill containing the drugs tenofovir and emtricitabine (TDF/FTC), is currently approved for daily use in adults. ... The authors concluded that the lack of significant adverse health events during the study indicates that the drug is safe for males under age 18. Similarly, the lack of HIV infection among participants who had sufficiently high blood levels of medication is consistent with studies in adults and suggests that the drug can be effective in this population when taken appropriately. NIH

Fitness may lower breast cancer risk

6 September - Aerobic fitness seems to alter the interior workings of cells in ways that may substantially lower the risk of breast cancer. A new study with female rats found that those that were the most fit were much less likely than other animals to develop cancer after exposure to a known carcinogen, even if they did not exercise. The findings offer tantalizing new clues into the relationship between fitness, exercise and malignancies. ... A large percentage of our aerobic fitness, perhaps as much as half, according to some studies, is innate. This genetically determined fitness level varies widely. ... Exercise can augment it, while avoiding movement and gaining weight may reduce it, but a person’s baseline, genetic fitness is his or hers from birth. The New York Times

HPV vaccine may protect against 90% of cervical cancers

6 September - A large double-blind study conducted in 18 countries found the nine-valent (nine-strain) human papillomavirus (HPV) vaccine offered long-term protection against most viruses that cause cervical cancers for girls and women ages 16 to 26 years old. The study ... updates and confirms the phase 3 findings of the vaccine, Gardasil 9, first published in 2015. ... The participants received three doses of the vaccine over the course of 6 months. The girls and women recruited for the study were healthy, had no previous history of abnormal cervical changes, and had had fewer than four sexual partners. The investigators found a 97.4% efficacy for Gardasil 9 against high-grade cervical, vulvar, and vaginal disease related to HPV types 6, 11, 16, 18, 31, 33, 45, 52, and 58. CIDRAP

Lasker prizes go to Planned Parenthood and developers of HPV vaccine

6 September - One of the nation’s most prestigious prizes in medicine will go to Planned Parenthood and two scientists who played a crucial role in developing the vaccine to combat HPV, a sexually transmitted virus that can cause cervical cancer. A third honor will go to a Swiss molecular biologist, who made a groundbreaking discovery about cell growth. The Lasker Awards, sometimes called the “American Nobels” because 85 of the awardees have gone on to win the international honor, were announced by the Albert and Mary Lasker Foundation Wednesday. Each prize comes with $250,000. The New York Times
Long-term opioid prescription use jumps threefold over 16-year period, large-scale study suggests

7 September - A new study ... found that opioid prescription use increased significantly between 1999 and 2014, and that much of that increase stemmed from patients who’d been taking their medication for 90 days or longer. Long-term use, which is associated with greater risk for addiction and overdose, increased threefold during the study’s time frame. In 1999-2000, less than half of the people who were taking prescription opioids were taking them for 90 days or more. By 2013-2014, more than 70 percent were taking opioid medication on a long-term basis. Johns Hopkins Bloomberg School of Public Health News

Meet the mum tackling depression one photo at a time

5 September - A mother from Hull has shared two strikingly different photos of herself when she was having suicidal thoughts to show that mental health does not have a specific look. Amelia Smith, 24, said people, including medical practitioners, sometimes failed to realise she was suffering with depression because of the way she looked or behaved. ... In an Instagram post shared on Monday, Amelia explained how she was only 14 years old when she first built up the courage to go to the doctor to seek help for her depression, but the response was not what she expected. "You don't look suicidal." I remember these words coming from the doctor's mouth right after I'd just told him that I was having thoughts of suicide," she posted. Amelia added she felt "invalidation," "embarrassed," and "confused”. BBC News

Online insomnia therapy helps improve mental health

6 September - People who completed an online therapy program for insomnia saw improvements in sleep, as well as in general mental health symptoms, according to a study from England. Compared with a control group, people randomized to a digital cognitive behavioural therapy (CBT) program experienced reduced insomnia ... at 10 weeks, reported Daniel Freeman, PhD, of University of Oxford in, and colleagues. Those in the sleep intervention group also experienced reduced paranoia ... and hallucinations ... at 10 weeks, they wrote online in Lancet Psychiatry. "How well we sleep might actually play a role in our mental health," Freeman said in a statement. "For many people, insomnia can be part of the complex package of causes of mental health difficulties. If you can sort out your sleep, you could also be taking a significant step forward in tackling a wide-range of psychological and emotional problems.” MedPage Today

Relationship problems? Try getting more sleep

4 September - … [B]ickering parents were among 43 couples taking part in an Ohio State University study exploring how marital interactions influence a person’s health. … [W]hile
marital spats were universal among the couples, how they handled them was not. Some couples argued constructively and even with kindness, while others — like the couple fighting about the birthday party — were hostile and negative. What made the difference? The hostile couples were most likely to be those who weren’t getting much sleep. ... The study found that when married partners got less sleep, not only were they more likely to have hostile conflicts, but they also had higher levels of inflammatory proteins in their blood after those conflicts. In short, marital discord is more toxic to your body when you haven’t gotten enough sleep. **The New York Times**

**The first count of fentanyl deaths in 2016: Up 540% in three years**

2 September - Drug overdoses killed roughly 64,000 people in the United States last year, according to the first governmental account of nationwide drug deaths to cover all of 2016. It’s a staggering rise of more than 22 percent over the 52,404 drug deaths recorded the previous year. Drug overdoses are expected to remain the leading cause of death for Americans under 50. ... Drug deaths involving fentanyl more than doubled from 2015 to 2016, accompanied by an upturn in deaths involving cocaine and methamphetamine. Together they add up to an epidemic of drug overdoses that is killing people at a faster rate than the H.I.V. epidemic at its peak. **The New York Times**

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**USAFRICOM**

**Nigeria: Cholera spreads through camps in Nigeria's strife-hit northeast: U.N.**

6 September - Cholera is spreading fast through camps housing people displaced by Boko Haram militants in northeast Nigeria's Borno state, the United Nations said on Wednesday. ... A U.N. report said more than 530 suspected cases of cholera had been registered by Tuesday - more than three times the number reported five days earlier. Twenty-three people had died, it added, up from 11 reported on Aug. 31. The outbreak began late last month, and aid workers had already warned that Nigeria's rainy season could spread disease in already unsanitary displacement camps. **Reuters**

**Uganda: Crimean-Congo hemorrhagic fever outbreak in central Uganda**

4 September - Officials with the Uganda Ministry of Health have reported an outbreak of Crimean-Congo hemorrhagic fever (CCHF) in the central region of the country. Eight cases, including two deaths have been reported from Nakaseke and Kiboga Districts as of Aug. 28.
The Ministry of Health, the Ministry of Agriculture, Animal Industry and Fisheries, and CDC deployed a multi-disciplinary rapid response team to the two districts to conduct outbreak investigation and rapid risk assessment. The epidemiology team is in the field to investigate the source of the outbreak and conduct contact tracing. Outbreak News Today

Zambia: Zambia to make HIV Testing mandatory for all patients visiting government health facilities

1 September - The Lancet: President of Zambia declares HIV testing mandatory. "Zambia is moving forward with mandatory HIV testing for all patients who visit government health facilities, Health Minister Chitalu Chilufya told The Lancet, confirming President Edgar Lungu’s surprise announcement of the new policy in mid-August. The move appears to contradict WHO recommendations against mandatory or coerced testing. And it has sparked an outcry among international and local HIV activists, who are pushing the government to reverse its decision..." KFF.org

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USCENTCOM

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

6 September - Between 13 and 30 August 2017, the National IHR Focal Point of Saudi Arabia reported 12 additional cases of Middle East respiratory syndrome coronavirus (MERS-CoV), including one death and, and one death from a previously reported case. ... Among the 12 newly reported cases, six were associated with a MERS cluster in Dawmet Aljandal City Al Jawf region, Saudi Arabia. ... In this new cluster, the six cases are among 17 household contacts who were being followed up by the Saudi Arabian Ministry of Health. Globally, 2079 laboratory-confirmed cases with MERS-CoV, including at least 722 related deaths have been reported to WHO. WHO

Syria: U.N. panel faults Syria’s military for chemical attack

6 September - United Nations investigators added their voices on Wednesday to a mountain of evidence of the Syrian military’s responsibility for a chemical attack on a rebel-held town five months ago that left villagers foaming at the mouth and gasping for breath. A United Nations Commission of Inquiry monitoring the six-year conflict in Syria said that Sukhoi 22 aircraft operated by the Syrian Air Force carried out the attack on the village of Khan Sheikhoun early on April 4. It killed at least 83 people, injured close to 300 others and prompted President Trump to order dozens of cruise missile strikes on the airfield from
which the jet fighters had launched their attack. The panel’s findings are the first authoritative statement to pin responsibility for the attack unequivocally on the Syrian government. The New York Times

**Yemen: Yemen's cholera epidemic hits 600,000, confounding expectations**

5 September - Yemen's cholera outbreak has infected 612,703 people and killed 2,048 since it began in April, and some districts are still reporting sharp rises in new cases, data from the World Health Organization and Yemen’s health ministry showed on Tuesday. The overall spread of the epidemic has slowed in the past two months, with the daily number of new suspected cases cut to around 3,000 in recent days. However the epidemic, the most explosive on record in terms of its rapid spread, has continually confounded expectations. Soon after it began, WHO saw a worst-case scenario of 300,000 cases within six months.

Reuters

**USEUCOM**

**Bulgaria: Preliminary findings indicate nosocomial transmission and Roma population as most affected group in ongoing measles B3 genotype outbreak**

7 September - From March to August 2017, 165 measles cases were reported from three regions in Bulgaria. The age range was 0–55 years and 66% of the cases were under 9 years. The Roma population was disproportionally affected (89% of cases), 41% cases were unvaccinated and in 24 cases there was nosocomial transmission mostly in paediatric departments. A child under 12 months of age died. Control measures have been taken and the investigation is still ongoing. Eurosurveillance

**Italy - In a case that is 'almost impossible,' girl dies of malaria in Italy**

5 September - A 4-year-old girl has died of malaria in Italy, where the disease is thought to have been wiped out. Troubled health officials are looking for answers. The girl was taken to the hospital Saturday in her Alpine hometown of Trento after she developed a high fever. ... She was transferred to a hospital specializing in tropical diseases in neighboring Brescia, where she died in the early morning hours Monday. ... Malaria was endemic throughout Italy until the first half of the 20th century, especially in coastal and marshy areas hospitable to the mosquitoes carrying the disease. But a campaign launched in 1947 to eradicate malaria, mainly through pesticides, proved to be successful. The World Health Organization
USNORTHCOM

U.S.: Environmental and health groups gear up to defend Obama EPA’s gas-mileage standards

6 September - The tug of war over how much more fuel efficient new cars and trucks should be in coming years — a fight that once seemed all but settled — will play out again on Wednesday in a downtown Washington hotel. The Environmental Protection Agency is holding an all-day hearing on its proposal to reconsider requirements that the U.S. car and light-truck fleet achieve an average 54.5 miles per gallon by 2025. The Obama administration had pushed for the standard as a key part of its efforts to scale back the nation’s greenhouse gas emissions. In another sign that the Trump administration intends to chart a starkly different course on climate change, the EPA announced plans earlier this year to withdraw the Obama administration’s final decision on strict fuel-efficiency standards for future cars and light trucks. The Washington Post

U.S.: 'Make American health great again' - Pence swears in new surgeon general

6 September - Vice President Mike Pence swore in a familiar face as America’s new surgeon general on Tuesday. Jerome Adams, who previously served as health commissioner for the state of Indiana, was sworn in by Pence just three years after being named to his former position by the same man. He will serve as the country's 20th surgeon general. ... Adams was approved by the Senate earlier this month after being nominated by Trump. The doctor referenced Trump during his confirmation. "To borrow a phrase from our president, let’s all work together to make American health great again," Adams said. ABC News

U.S.: NIOSH releases new software to monitor the health and safety of emergency responders

6 September - The National Institute for Occupational Safety and Health (NIOSH) announces the availability of a new software platform called ERHMS Info Manager™ to track and monitor emergency response and recovery worker activities during all phases of emergency response following a natural disaster or other public health emergency. ... ERHMS Info Manager is a custom built software product developed by NIOSH that emergency responder organizations can use to implement the Emergency Responder Health Monitoring and Surveillance (ERHMS™) framework. The freely available software can be used by anyone involved in the deployment and protection of emergency responders,
including: incident command staff, response organization leadership, health, safety and medical personnel, and emergency responders. CDC

U.S.: San Diego declares health emergency amid hepatitis A outbreak

3 September - San Diego’s homeless population has been hit hardest by the highly contagious hepatitis A virus. The outbreak, which began in November, has spread after vaccination and educational programs in the city failed to reduce the infection rate. ... The public health declaration bolsters the county Health and Human Services Agency’s ability to request state assistance to fund new sanitation measures. Areas with high concentrations of homeless people will receive dozens of portable hand-washing stations. Health workers will also use bleached-spiked water for power-washing contaminated surfaces. ... As of Friday, more than 15 people in the area have died from hepatitis infections and more than 350 others have been sickened. NPR

U.S.: Smoke from western wildfires causes health concerns

5 September - A growing Oregon wildfire covered parts of Portland’s metropolitan area Tuesday with ash and prompted the shutdown of a lengthy stretch of highway through the state’s scenic Columbia River Gorge. It was one of dozens of wildfires burning in western U.S. states that sent smoke into cities from Seattle to Denver - prompting health warnings and cancellations of outdoor activities for children by many school districts. According to CBS Denver, doctors say residents, especially those with lung or heart problems, should avoid the outdoors until the haze clears up. The National Interagency Fire Center in Boise, Idaho, a federal agency that coordinates wildfire-fighting, said 80 large fires were burning on 2,200 square miles in nine Western states. CBS News

U.S.: With Trump’s plan to rescind DACA, immigrant health gains may be lost

5 September - ... Immigration policy generally affects health in two ways: materially and psychologically. Immigration laws can either give or deny people job permits and driver’s licenses, which in turn can determine a person’s earning power, ability to get health insurance and access to health care. Psychologically, immigrants who are undocumented can feel stress, anxiety and depression, which can in turn affect everything from their cardiovascular health to the birthweight of their babies. ... The research on DACA is clear: Once the program went into effect in 2012, there were immediate physical and mental health benefits, not only for the immigrants themselves but also for their family members who were U.S. citizens. Immigration researchers found a measurable improvement in psychological wellness among those who benefited from DACA. DACA-eligible immigrants also had improved access to health care, which in turn improved mental health and a sense of well-being among these young adults. Huffington Post
HARVEY

After the flood, the monster that grows like ‘the Blob’ — and doesn’t die

6 September - The Texas towns and cities inundated by Hurricane Harvey’s torrential downpours are finally drying out, but the storm left a menace behind: mold. Just 24 hours after a heavy rain, as the Centers for Disease Control and Prevention and now many Texans can attest, the fungi can begin to grow and invade a home. ... Mold not only damages homes and businesses but affects human health. Exposure can trigger a stuffy nose, irritated eyes, cough or respiratory problems. Mold is so ubiquitous because it reproduces and spreads via pollen-like spores that are lightweight and travel easily through the air, thus exposing people through inhalation and skin contact. Complicating the situation: Those spores can last a long time. ... Methods to remove mold run the gamut. There’s simple, as in scrubbing with a fungicide mixed with bleach and water. There’s also complicated, which can involve wet vacuuming or vacuuming with a high-efficiency air purifier. The Washington Post

Crisis is over at Texas plant, but chemical safety flaws remain

5 September – Residents have returned to their homes here in the shadow of the Arkema chemical plant now that the fires at the plant are out and the immediate safety hazard has passed. The fires, a result of flooding in the wake of Hurricane Harvey that caused chemicals to become unstable, had little health impact beyond the 21 emergency workers who were treated for smoke exposure. ... Still, the accident at the plant has exposed large flaws in regulation of chemical safety, risk disclosure and emergency planning. ... The United States Chemical Safety and Hazard Investigation Board said it was opening an investigation into the Arkema fires. The board, a federal agency charged with investigating chemical disasters, will focus on the site’s risk management plans, said Johnnie Banks, an investigator at the agency. The New York Times

Harvey’s floodwaters mix a foul brew of sewage, chemicals

4 September - Harvey’s filthy floodwaters pose significant dangers to human safety and the environment even after water levels drop far enough that Southeast Texas residents no longer fear for their lives, according to experts. Houston already was notorious for sewer overflows following rainstorms. Now the system, with 40 wastewater treatment plants across the far-flung metropolis, faces an unprecedented challenge. State officials said several dozen sewer overflows had been reported in areas affected by the hurricane, including
Corpus Christi. Private septic systems in rural areas could fail as well. Also stirred into the noxious brew are spilled fuel, runoff from waste sites, lawn pesticides and pollutants from the region’s many petroleum refineries and chemical plants. The U.S. Environmental Protection Agency reported Sunday that of the 2,300 water systems contacted by federal and state regulators, 1,514 were fully operational. More than 160 systems issued notices advising people to boil water before drinking it, and 50 were shut down. VOA

Harvey swept hazardous mercury ashore. The mystery: its source.

6 September - Public health officials are investigating a case of dangerous liquid mercury that appears to have washed or blown ashore here, east of Houston, in the aftermath of Hurricane Harvey. Bobby Griffin found the clusters of shiny silver mercury globules scattered across his San Jacinto riverfront property on Tuesday, a few hundred yards from the San Jacinto Waste Pits, a Superfund site that was inundated during last week’s storm. ... Lisa Montemayor, an environmental investigator for Houston’s health department, said that officials would be dispatched to Mr. Griffin’s property as soon as possible, but she could not yet say where the mercury had come from, or how widespread the contamination was. The New York Times

High levels of carcinogen found in Houston area after Harvey

6 September - High levels of the carcinogen benzene were detected in a Houston neighborhood close to a Valero Energy refinery, local health officials said Tuesday, heightening concerns over potentially hazardous leaks from oil and gas industry sites damaged by Hurricane Harvey. Preliminary air sampling in the Manchester district of Houston showed concentrations of up to 324 parts per billion of benzene, said Loren Raun, chief environmental science officer for the Houston Health Department. That is above the level at which federal safety officials recommend special breathing equipment for workers. Health officials also detected high levels of volatile organic compounds, which have been linked to a variety of health problems, including liver damage and cancer. The New York Times

Hurricane Harvey—Clinical guidance for carbon monoxide (CO) poisoning

2 September - ... CDC recommends that clinicians: Consider CO poisoning in persons affected by Hurricane Harvey, particularly persons who are currently without power. All people affected by the storm should be advised about safe practices related to generators, grills, camp stoves, or other gasoline, propane, natural gas, or charcoal-burning devices. ... Ask patients presenting for treatment who are affected by Harvey about symptoms consistent with CO poisoning. Clinicians should also ask about exposure to any fuel or power sources that place a person at increased risk for CO
New resource helps locals locate lost, found pets displaced by Harvey

7 September - There are many online resources available to those trying to reunite lost pet with their rightful owners following Hurricane Harvey. One of those resources is Texasfloodpets.com. Texasfloodpets.com allows people from devastated areas to upload photos of lost and found pets. In addition, users fill out information such as where the animal was last seen or is currently located, the animal’s breed and other identifying information to help reconnect animals with their owners. ... Another resource available is a Facebook group called Hurricane Harvey - ALL lost & found pets that shows more than a dozen displaced pets that have been reunited just within the Corpus Christi area. KRISTV

Receding floodwaters in Houston expose long-term health risk

7 September - Benzene churns through Houston’s economy. The clear, sweet-smelling chemical is found in the crude oil processed in the region’s refineries and is used to make plastic, pesticides and other products. It’s also a carcinogen with cancer-causing properties, illustrating the risks that will linger for southeast Texas long after the floodwaters of Harvey have receded. Thousands of homes were submerged in murky water that may have been tainted with benzene and other runoff from an area that boasts the nation’s largest concentration of refineries and petrochemical plants. ... EPA officials are still trying to access and inspect federal Superfund sites that were swamped by the storm to determine whether contaminants escaped, including benzene and other cancer-causing agents such as cadmium and trichloroethylene. Residents near a still-submerged wastewater treatment plant in west Houston were warned Wednesday that the risk of migrating sewage makes it unsafe to drink untreated water from private wells. Bloomberg

India: India baby deaths - second hospital probed

4 September - Indian police are investigating the deaths of dozens of newborns at a hospital in Farrukhabad, Uttar Pradesh. Forty-nine children died at Ram Manohar Lohia hospital in a month, including at least 30 who are said to have died from "perinatal asphyxia". The condition is caused by reduced oxygen levels during childbirth. In August at least 160 minors died at a Gorakhpur hospital, in the same state. Some of the deaths there
were also allegedly caused by lack of oxygen. But senior government officials have denied that this was the case in either hospital. In the most recent investigation, a government report blamed medical staff for 30 deaths, prompting the launch of a police investigation.

BBC News

New Zealand/Japan: Mumps news - Auckland reports most cases in 20 years, Japan reports hundreds suffering hearing loss

6 September - Auckland, New Zealand is seeing the most mumps cases in a single year in more than two decades. According to the Auckland Regional Public Health Service (ARPHS), 311 confirmed and probable cases have been reported this year. In 1994, at least 200 cases were reported; however, since then only a handful of cases were reported annually. Low vaccination rates are fueling Auckland’s mumps outbreak. ... Around 80 percent of the current cases were not fully vaccinated. ... A survey by the Oto-Rhino-Laryngological Society of Japan revealed that at least 336 people suffered hearing loss in Japan in 2015 and 2016 as a result of complications related to the contraction of mumps. A total of 261 people diagnosed with severe hearing loss to such an extent that it causes difficulties in their daily lives. Of sufferers, 154 were aged between 5 and 10 years old. Fourteen patients developed hearing difficulties in both ears and 11 began wearing hearing aids or had a cochlear device implanted. Outbreak News Today

Philippines: Cebu reports 9 human rabies deaths

7 September – The regional Department of Health (DOH-7) office in Cebu City says there have been nine human rabies deaths recorded year-to-date, according to a Philippines media report Wednesday. So far in 2017, more than 20,000 animal bites have been reported to local health officials. This compares to 59,773 animal bite cases and eight deaths caused by rabies in all of 2016. Outbreak News Today

South Asia: In flood-prone South Asia, early warning systems buy precious time

5 September - ... Three years ago, the Karnali and Babai rivers in mid-western Nepal overflowed, sending floodwaters rushing through downstream flatlands, killing dozens. There were 31 deaths in the single district of Bardiya alone. In August this year, monsoon rains again caused the waters to swell — part of massive regional floods that surged across Nepal’s southern plains. This time, though, only four people in Bardiya died. One key reason for the difference was that eight to 12 hours before the floods swept in, people received text messages warning of the impending danger, says Nepal’s chief flood forecaster, Rajendra Sharma. ... Sharma says even in areas where the new SMS alert system was employed, some residents still struggled to use the lifesaving information. In some cases there was a crucial missing link: a clear plan and a safe evacuation centre on higher ground. ... “I think more effort is required to understand why people don’t move,” said Ayeb-
Karlsson, who researches human responses to climate change and disasters. "Most of the time, it doesn’t have too much to do with not getting warning signals, or not knowing the flood is coming," she said. IRIN

**South Asia: Thousands hit by malaria, dengue as South Asia's worst floods in a decade recede**

6 September - Thousands of people are suffering from an outbreak of diarrhea, malaria and dengue in Bangladesh and Nepal as the waters from the worst floods in a decade recede, officials and aid agencies said on Wednesday. More than 1,400 people have died in the floods that have swept South Asia over the past two months and tens of thousands are living in tents, schools and even just under tarpaulins. ... About 13,000 people are ill with diarrhea and respiratory infections in densely populated Bangladesh after floods in its north, where the Brahmaputra and Jamuna rivers broke their banks. ... In the Himalayan nation of Nepal, 26,944 cases of illness have been reported by district health facilities, while 39,712 people had been treated in health camps by Aug. 30, the health ministry said. ... Save the Children ... estimated 17 million children needed help with protection, health care and basic nutrition in India alone. Reuters

**USSOUTHCOM**

The Americas: With adjustment in Brazil, chikungunya totals in the Americas drop 28,000

5 September - In ruling out more than 28,000 suspected chikungunya cases, Brazil has dropped its case count considerably, leading to a substantial drop in overall cases in the Americas this year, the Pan American Health Organization (PAHO) said late last week in its most recent update. Brazil adjusted its number of suspected cases from 58,837 the week before to 21,784 last week—a difference of 37,053, according to the Sep 1 PAHO update. But it added 8,665 confirmed cases, bringing that total to 112,963. Brazil's 2017 total cases, therefore, are now listed at 134,747, which is 28,388 fewer than listed in the previous week's update. ... Nicaragua and Bolivia showed slight increases, while Peru adjusted its total downwards slightly as it ruled out a number of previously suspected cases. CIDRAP News Scan (fourth item)
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The Army Public Health Weekly Update is published by the Public Health Information Directorate, Army Public Health Center.