26 August 2016

Army Public Health Weekly Update

Army Public Health Center

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The Army Public Health Update is a collection of articles taken verbatim from public sources to offer awareness of current health issues and the media coverage given to them. The articles do not necessarily represent US Army Medical Department opinions, views, policy, or guidance, and should not be construed or interpreted as being endorsed by the US Army Medical Command.
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Sanitation Guidelines for Management of Military and Contracted Shower and Laundry Operations Associated with Operation United Assistance

A new technical information paper addresses sanitation measures that effectively remove and destroy harmful microorganisms from surfaces and fabrics to prevent cross-contamination and the potential spread of infection. This paper is not intended to address sanitary controls at hospitals or medical facilities and the services (e.g., laundry) that directly support those facilities.

U.S. MILITARY

Among veterans, painkiller misuse strongly linked to starting heroin

23 August - A study of nearly 3,400 military veterans over 10 years found that when participants began to misuse opioid painkillers, they had a very high likelihood of also beginning to use heroin. As a result, the authors recommend that health care providers who serve veterans should watch closely for signs of non-medical use of opioid painkillers. "This study quantifies the issue of starting painkiller misuse and heroin use in a specific, high-risk population—veterans around the U.S.,” said corresponding author Brandon Marshall, Manning Assistant Professor in the Brown University School of Public Health. "Of the 500 participants who initiated heroin, 77 percent reported prior or concurrent non-medical prescription painkiller use." Even after statistically accounting for many other risks—such as race, income, use of other drugs, and PTSD or depression—researchers found that veterans who began misusing painkillers were 5.4 times more likely than those who did not to begin using heroin. Medical Xpress

Army now deploying smaller medical teams for far-flung deployments, 3-star says

22 August - The Army Surgeon General says the service is taking necessary steps to improve its operational readiness, to include small teams of medical experts able to deploy anywhere in the world to treat U.S. soldiers and save lives. Lt. Gen. Nadja West, the Army’s top medical officer since December, said her soldiers are now deploying in smaller and more agile surgical teams and serving alongside soldiers and Special Forces groups. She is also working to improve Army Medical Command’s ability to deploy an entire combat support hospital should it be called for duty. Among her other goals: reducing the number of non-deployable soldiers and advancing the Performance Triad, the Army’s three-pronged approach to fitness that focuses on sleep, nutrition and exercise. Army Times

Incident diagnoses of cancers in the active component and cancer-related deaths in the active and reserve components, U.S. Armed Forces, 2005–2014

July 2016 - Cancer is the second leading cause of death in the U.S., surpassed only by heart disease. It is estimated that approximately one of every four deaths in the U.S. is due to cancer. Between 2005 and 2014 among active component service members in the U.S. military, crude incidence rates of most cancer diagnoses have remained relatively stable. During this period, 8,973 active component members were diagnosed with at least one of the cancers of interest and no specific increasing or decreasing trends were evident. Cancers accounted for 1,054 deaths of service members on active duty during the 10-year surveillance period; this included 727 service members in the active component and 327 in...
Army Vector-borne Disease Report

Zika Virus: As of 17 August, 2,245 travel-associated and 14 locally acquired cases have been reported to the CDC in the United States; 37 confirmed and 7 probable cases have been reported in Army beneficiaries as of 18 August.

Army-wide: 4,344 mosquitoes were tested for Zika; none tested positive.

The weight of war: marching to win means keeping ahead of injury

15 August - ... During dismounted troop foot movement, Soldiers must carry heavy equipment over varying terrains with multiple environmental hazards. Heavy loads can lead to rapid fatigue, greater food and water requirements, awkward body postures, and stress and friction to body parts. ... The ability to effectively and rapidly move troops by foot is an indisputable advantage in many operational circumstances, which is why foot march training, or "rucking," remains an important component of Army readiness training. Foot march training that is too excessive or intense, however, can unnecessarily increase the risk of acute and overuse injuries. The injuries can lead to recovery periods and medical treatment that limit physical activity for days, weeks or months, and could even cause permanent disability. U.S. Army

Upgraded e-Profile increasing readiness, says Army surgeon general

22 August - Combat readiness is the Army chief of staff's No.1 concern and medical readiness contributes a great deal to that, said Lt. Gen. Nadja Y. West. On June 1, the Army added a software tool that will contribute to boosting medical readiness, she said. Specifically, the Army upgraded its e-Profile system by adding a Commander Portal, she pointed out. That gives commanders eyes on medical readiness at the unit level, as well as all the way down to the level of the individual Soldier. ... The portal gives commanders a real-time view of each Soldier's medical and dental readiness, West said, and that in turn provides the commander with unit readiness. As well, the portal consolidates all of a Soldier's profiles in one location, she said. ... Now, even temporary profiles and profiles given by different providers are all in one place. U.S. Army

VA touts telehealth success before House panel

16 August - In fiscal year (FY) 2015, VA conducted 2.14 million telehealth visits, reaching more than 677,000 veterans. Telehealth "remains a critical strategy in ensuring veterans can access health care when and where they need it," Kevin Galpin, MD, acting executive director for telehealth at the VHA told the House Committee on Veterans Affairs earlier this month. "With the support of Congress, we have an opportunity to shape the future and ensure that VA is leveraging cutting-edge technology to provide convenient, accessible, high-quality care to all veterans." Telemental health, in particular, also has seen significant growth. From 2002 through July 2, 2016, Galpin reported, more than 2 million telemental health visits have been provided to more than 389,400 unique veterans. Federal Practitioner
Watch: A Slow-Motion Sneeze Looks a Lot Like Breathing Fire
Lydia Bourouiba, a mathematical physicist, leads a research group at the Massachusetts Institute of Technology that studies fluid dynamics. On Wednesday, her team published a slow-motion video of a sneeze in the New England Journal of Medicine. NPR

When should vets use mobile apps for PTSD treatment? VA wants to know

23 August - Veterans who can't easily get to education facilities could use mobile apps to help manage conditions such as post-traumatic stress disorder, a Veterans Affairs Department posting suggests. VA is exploring whether psychologists can provide guidance on when mobile apps should be used—both to veterans and clinical providers, according to a VA FBO notice. The department already promotes apps designed to help veterans manage the symptoms of PTSD and insomnia. ... VA's search for clinical psychologists, posted earlier this month, asks whether there's a commercial marketplace for such professionals to advise the development and use of mobile apps in mental health. ... The contractor would come up with ideas for mobile apps, but also to write "supporting documents" with information for veterans who have PTSD or have gone through traumatic experiences, the posting said. Nextgov

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GLOBAL

Conflicts subverting improved health conditions in Eastern Mediterranean Region

24 August - Improved health conditions and life expectancy over the past 20 years in the Eastern Mediterranean Region are being subverted by wars and civil unrest, according to a new scientific study. Conflicts have destroyed infrastructures in several nations, and with inadequate water and sanitation systems in some countries, there is "an immediate need" to ensure outbreaks and illnesses are properly controlled. Moreover, many physicians and health professionals are fleeing their home countries in search of stability and safety, taking their talent and expertise needed to help rebuild inadequate health systems. ScienceDaily

Drug resistance through the back door

24 August - Irresponsible pharmaceutical companies fuel the proliferation of superbugs through supply chain pollution, the European Public Health Alliance (EPHA) reports. The advocacy group uncovered lapses such as dirty production and inadequate waste disposal in the production of antimicrobials in China and India, which supplies most of the antimicrobials consumed in Europe. In a briefing detailing the pollution, the EPHA urges major purchasers of antibiotics to blacklist irresponsible pharmaceutical companies, demand that the industry clean up its supply chain, introduce greater transparency on the origin of antibiotics, and review and revise procurement policies from an ethics perspective. HESP News Briefing
Experts propose global targets for cutting antibiotic use

19 August - Arguing that antimicrobial resistance (AMR) threatens to erase decades of progress in medicine, public health, and food security, a group of global health experts is urging the United Nations (UN) to set global targets for reduced antibiotic consumption. ... [T]he authors argue that countries should aim to consume no more than the current median global level of antibiotics (8.54 defined daily doses per capita per year), an amount they say would reduce global antibiotic use by more than 17.5%. How each country would get there would have to be determined at the national level, with solutions tailored to each country’s situation. CIDRAP News

Genetic tests could speed infection diagnosis in infants

24 August - Two new studies ... show the potential of genetics to quickly determine whether feverish infants have a bacterial or a viral infection, a finding that could ultimately aid antibiotic stewardship efforts. In the first of the two studies, an international team of researchers investigated whether bacterial infections can be distinguished from other types of fever-causing infections in young children by observing how host genes respond to an infection. From there, they wanted to determine if a subset of those genes could be used as the basis for a diagnostic test. ... [T]he researchers were able to identify a 38-transcript RNA expression signature that could distinguish bacterial from viral infections. They then were able narrow this down to 2 gene transcripts that could differentiate between bacterial and viral infections. ... [T]he 2-transcript signature accurately identified bacterial infections in all 23 children who had confirmed bacterial infections (sensitivity 100%), and accurately identified 27 out of 28 children who had confirmed viral infections (specificity 96.4%). CIDRAP News

Harvard researchers pinpoint enzyme that triggers cell demise in ALS

24 August - Scientists from Harvard Medical School (HMS) have identified a key instigator of nerve cell damage in people with amyotrophic lateral sclerosis, or ALS, a progressive and incurable neurodegenerative disorder. Researchers say the findings of their study ... may lead to new therapies to halt the progression of the uniformly fatal disease that affects more than 30,000 Americans. ... The onset of ALS, also known as Lou Gehrig’s disease, is marked by the gradual degradation and eventual death of neuronal axons, the slender projections on nerve cells that transmit signals from one cell to the next. The HMS study reveals that the aberrant behavior of an enzyme called RIPK1 damages neuronal axons by disrupting the production of myelin, the soft, gel-like substance that envelopes axons to insulate them from injury. Harvard Gazette

'HIV effort let down by test shortages'

24 August - A shortage of HIV testing could undermine global efforts to diagnose and treat people with the infection, warn experts from the World Health Organization. They looked at
responses to annual surveys that the WHO had sent to 127 countries between 2012 and 2014 asking about capacity and usage of blood tests that check HIV status and health. They found worrying gaps in provision. They warn that United Nation targets for HIV could be missed as a result. The targets say that by 2020, 90% of all people living with HIV should know their HIV status, 90% of those diagnosed should receive antiretroviral therapy and 90% of these treated patients should have “durable viral suppression” (a measure of effective treatment). Laboratory testing is vital to meet and monitor these aims. But Vincent Habiyambere and his colleagues say in the journal PLoS Medicine that some low and middle-income countries, including African countries where the HIV burden is high, are not yet geared up for the challenge. BBC News

Make data sharing routine to prepare for public health emergencies

16 August - The recent outbreaks caused by Ebola and Zika viruses highlighted the importance of medical and public health research in accelerating outbreak control and prompted calls for researchers to share data rapidly and widely during public health emergencies. Effective preparation for emergencies requires the routine practice of data sharing in scientific research. Key impediments to data sharing, such as long-standing academic norms and human and technical resource limitations, cannot immediately be surmounted when an emergency occurs. Ongoing research that does not directly relate to an emergency now may be critical for the next unpredictable outbreak. As part of emergency preparedness, the scientific community should support ... data sharing and should embrace open science practices in both emergency and nonemergency research. PLOS Medicine

Poor sanitation persisted at U.N. missions long after Haiti cholera crisis

19 August - Years after medical studies linked the 2010 cholera outbreak in Haiti to infected United Nations peacekeepers, the organization’s auditors found that poor sanitation practices remained unaddressed not only in its Haitian mission but also in at least six others in Africa and the Middle East, a review of their findings shows. The findings, in audits conducted by the United Nations Office of Internal Oversight Services in 2014 and 2015, appear to reflect the organization’s intent to avoid another public health crisis like cholera. But the findings also provide some insight into how peacekeepers and their supervisors may have been either unaware of or lax about the need to enforce rigorous protocols for wastewater, sewage and hazardous waste disposal at United Nations missions — despite the known risks and the lessons learned from Haiti. The New York Times

Study suggests favipiravir benefits for Ebola patients

24 August - A trial of the antiviral drug favipiravir in Ebola patients during Sierra Leone's
outbreak suggests that it can reduce viral load, improve clinical symptoms, increase the survival rate, and prolong survival time, Chinese and African researchers reported. ... The retrospective case study took place in Ebola patients treated at the Sierra Leone-China Friendship Hospital near Freetown. ... Survival rate in the treatment group was 56.4%, compared with 35.3% in the control group. Of 35 patients who completed all study end point observations, survival rate was 64.8% in the treatment group and 27.8% in the control group. Survival time was longer in the treatment group: 46.9 days compared with 28.9 days, and patients in the treatment group showed significant symptom improvement.

CIDRAP News Scan (first item)

The science of diffusion and the spread of public policy

22 August- Most of us think of diffusion in the context of its scientific definition as the process whereby particles of liquids, gases or solids intermingle and in dissolved substances move from a region of higher to one of lower concentration. However, it also applies to the spread of policies between and among cultural, social and governmental systems. ... "Loosely speaking, we seek to establish ways to pick up who are the leaders and followers among the 50 U.S states when it comes to creating new health policies," [Maurizio] Pofiri said. ... The team demonstrated two complementary approaches, grounded on information theory and time series analysis, using systematic analysis of surrogate datasets generated through a minimalistic model for policy diffusion and opening the door to new understandings of how policies are transmitted from state to state. Science Daily

UN maintains immunity in cholera lawsuits

19 August - A US federal appeals court has affirmed United Nations (UN) immunity from a damage claim filed by Haitian cholera victims, the Associated Press (AP) reported today. The claim involved 5,000 people who blamed the UN for a cholera outbreak that swept through the country months after its January 2010 earthquake. The ruling came just days after UN officials took some ownership for the epidemic. ... The AP reported that advocates for the cholera victims have 90 days to make an appeal to the U.S. Supreme Court.

CIDRAP News Scan (third item)

Whose lives should be saved? Researchers ask the public

21 August - ... For the past several years, Dr. Lee Daugherty Biddison, a critical care physician at Johns Hopkins, and colleagues have led an unusual public debate around Maryland. ... Preparing to make recommendations for state officials that could serve as a national model, the researchers heard hundreds of citizens discuss whether a doctor could remove one patient from lifesaving equipment, like a ventilator, to make way for another who might have a better chance of recovering, or take age into consideration in setting priorities. ... The effort is among the first times, Dr. Daugherty Biddison said, that a state has gathered informed public opinion on these questions before devising policy on them. The New York Times
### ZIKA VIRUS

#### Brain scans of Brazilian babies show array of Zika effects

23 August - A study of brain scans and ultrasound pictures of 45 Brazilian babies whose mothers were infected with Zika in pregnancy shows that the virus can inflict serious damage to many different parts of the fetal brain beyond microcephaly. ... The images ... also suggest a grim possibility: Because some of the damage was seen in brain areas that continue to develop after birth, it may be that babies born without obvious impairment will experience problems as they grow. ... Most of the babies in the study were born with microcephaly, although three were not. Each also suffered other impairments, almost all of which emerge earlier than microcephaly because a smaller head is really a consequence of a brain that has failed to develop fully or has been damaged along the way, experts said. ... Many infections that target the brain produce clumps of calcium, called calcification. But in Zika-infected babies, calcification often occurred in an unusual place: at the intersection of the gray matter of the outer layer of the brain, the cortex, and the white matter of the layer just below that.

*The New York Times*

#### Number of Zika cases in US military rises to 55

19 August - The number of Zika virus cases among military personnel has continued to rise, with 14 more cases reported in recent weeks to increase the total number from 41 to 55, a Pentagon spokesman said Friday. In addition, 12 military dependents have been diagnosed with Zika, an increase of five cases over the seven among military dependents reported earlier this month. All of the cases among military personnel and dependents were “travel related,” meaning that the virus was not contracted within the continental U.S. since testing began earlier this year, the spokesman said. The number of cases in the military could be much higher. Only about 20 percent of people infected with Zika have symptoms.

*Military.com*

#### Pregnant women advised to avoid travel to active zika zone in Miami Beach

19 August - With the Zika virus spreading to Miami Beach, federal health officials on Friday advised pregnant women not to visit a 20-block stretch of one of the country’s most alluring tourist destinations. They also told them to consider postponing travel anywhere in Miami-Dade County. ... The travel advisory from the Centers for Disease Control and Prevention was prompted by the discovery of a second zone of local Zika transmission in an area between Eighth and 28th Streets in Miami Beach that includes the heart of South Beach, a tourist mecca. Officials said five people, including travelers from New York, Texas and Taiwan, were infected there. The other area where mosquitoes are spreading the virus
U.S. warning: Zika could spread to Gulf States, persist for one to two years

22 August - The National Institutes of Health's Anthony Fauci warned that Texas and Louisiana could be next for Zika. In the weeks since mosquitoes carrying the virus hit U.S. borders, they have already spread from a small suburban community in South Florida to Miami's most popular tourist spot, South Beach. ... Fauci [said,] ... “I would not be surprised if we see cases in Texas and Louisiana, particularly now where you have the situation with flooding in Louisiana,” he said. “There are going to be a lot of problems getting rid of standing water.” ... A new analysis by the nonprofit group Climate Central shows that because of climate change, mosquito seasons are lengthening. According to a Capital Weather Gang report, Baltimore and Durham, N.C., top the list of growing mosquito seasons, with a 37-day increase in the season of bug bites since 1980. The season is Minneapolis has grown by 34 days, in Myrtle Beach, S.C., by 34 days, in Raleigh, N.C., by 33 days and in Portland, Maine, by 32 days. The Washington Post

Zika hides in vagina, baby's bloodstream longer than previously thought

25 August - ... [Zika] virus can hide in vaginal tissue and the bloodstream of infected infants much longer than anyone expected, with dangerous consequences. In most people, Zika lives in the blood for about seven days and then resolves. It can last a bit longer in urine and saliva, but even that goes away after a couple of weeks, leaving antibody testing of the blood as the only way to determine whether you've had the virus. But a letter published Wednesday ... tells the story of a Brazilian baby who continued to have Zika in his blood for more than two months after his birth. He wasn’t diagnosed with microcephaly when he was born, nor did he have any obvious developmental issues at his two-month checkup. ... [B]y the time he turned 6 months of age, he had severe muscle contractions and other signs of neurological decay. ...

[A] team of researchers at Yale University began vaginally infecting virgin and pregnant mice with Zika. The results, published today in the scientific journal Cell, are alarming: Zika could hide and reproduce in vaginal tissue of mice for up to seven days, with an average of four to five days. What’s more, in the pregnant mice, the virus spreads from the genitals to infect the fetal brain, causing reduced fetal weight gain and impaired development. CNN

Zika virus transmitted through blood transfusion, new report suggests

18 August - Experts have wondered if the Zika virus might sometimes be transmitted through blood transfusions, and a cluster of infections in Brazil seems to support that notion. Doctors believe that a blood donor passed along the typically mosquito-borne virus
in late January to two hospitalized patients who needed transfusions. “These data show evidence for Zika virus transmission by means of [blood] platelet transfusion,” reported [the] team. ... As often occurs, neither of the patients who received the donated blood came down with symptoms of Zika infection, the researchers noted. CBS News

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**INFLUENZA**

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**Canadian study finds flu B deadlier than flu A in kids**

19 August - Influenza B causes higher death rates in children than the more common influenza A, according to a study from Canadian researchers. ... The investigators analyzed data on 1,510 children hospitalized with influenza B and 2,645 children hospitalized with influenza A from eight non-pandemic flu seasons from 2004 to 2013. ... The team found that 1.1% of the flu B and 0.4% of the flu A patients died, meaning that patients in the former group were almost three times more likely to die from their infection. Among healthy children with influenza B, those 10 years or older, compared with babies younger than 6 months, had an almost sixfold-greater risk of admission to an intensive care unit. The researchers also determined that, compared with influenza A patients, influenza B patients were more likely to have a vaccine-indicated condition, and symptoms more often associated with influenza B were headache, abdominal pain, and muscle aches.

CIDRAP Flu Scan (second item)

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

Pneumonia and Influenza (P&I) Mortality Surveillance for 2015-2016 Influenza Season Week 32 ending August 13, 2016:

- Seven human infections with novel influenza A viruses were detected in two states (Michigan [6] and Ohio [1]) during week 32. All seven persons were infected with influenza A (H3N2) variant (H3N2v) viruses and reported exposure to swine in fair settings during the week preceding illness onset. No human-to-human transmission has been identified and separate swine exposure events at fairs in each state are associated with infection. There is no indication that the cases in different states are related. Public health and agriculture officials are investigating the extent of disease among humans and swine, and additional cases may be identified as the investigation continues. A total of 11 (Michigan [8] and Ohio [3]) human infections with H3N2v viruses have been identified in 2016.

- NCHS Mortality Surveillance Data: Based on NCHS mortality surveillance data available on August 18, 2016, 5.0% of the deaths occurring during the week ending July 30, 2016 (week 30) were due to P&I. This percentage is below the epidemic threshold of 6.1% for
week 30.

- 122 Cities Mortality Reporting System: During week 32, 5.2% of all deaths reported through the 122 Cities Mortality Reporting System were due to P&I. This percentage was below the epidemic threshold of 5.7% for week 32. CDC

**NHRC: Febrile Respiratory Illness Surveillance Update**

For 2016 Week 33 (through 20 August 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 Fort Benning. Naval Health Research Center

**WHO: Influenza Update**

22 August - Influenza activity varied in countries of temperate South America and increased steadily in the last few weeks in South Africa, increased slowly but remained still low overall in most of Oceania. Influenza activity in the temperate zone of the northern hemisphere was at inter-seasonal levels. WHO

**VETERINARY/FOOD SAFETY**

**Eat your food packaging, don't bin it - scientists**

23 August - Scientists are developing an edible form of packaging which they hope will preserve food more effectively and more sustainably than plastic film, helping to cut both food and plastic waste. The packaging film is made of a milk protein called casein, scientists from the U.S. Department of Agriculture said at a meeting of the American Chemical Society. The milk-based packaging does not currently have much taste, but flavors could be added to it, as could vitamins, probiotics and other nutrients to make it nutritious, they said. The film looks similar to plastic wrapping, but is up to 500 times better at protecting food from oxygen, as well as being biodegradable and sustainable, the researchers said. Reuters

**Scallops test positive for hepatitis A as Hawaii outbreak grows**

23 August - Food and Drug Administration (FDA) tests on scallops implicated in Hawaii’s hepatitis A outbreak yielded positive results on two samples. ... Also, the number of people sickened in the outbreak continues to grow, with 206 cases now reported as of Aug 17. The total reflects an increase of 38 since the last update from the Hawaii Department of Health (HDOH). The most recent illness onset was Aug 9, and 51 patients have been hospitalized,
according to the HDOH. The FDA said it and its investigation partners notified Sea Port Products Corp that its frozen bay scallops are the likely source of the illnesses and that the company voluntarily recalled three lots of its product on Aug 18. ... The trace-back investigation had revealed that the imported scallops were supplied to certain Genki Sushi outlets in Hawaii where people sickened in the outbreak had eaten.

CIDRAP News Scan (first item)

Tropical Smoothie Cafe hepatitis A outbreak at 17

24 August - The hepatitis A outbreak associated with Tropical Smoothie Cafe products in Virginia has now sickened at least 17 people, according to the Virginia Department of Health. The outbreak has been linked to strawberries imported from Egypt that were used in smoothies. Testing on the virus in ill persons has revealed it matches a hepatitis A strain that was found in Egyptian strawberries that caused outbreaks in the past. ... The chain has found another source of strawberries and has removed the Egyptian strawberries from their supply chain. The berries may have been sold to other restaurants. The FDA and other agencies are conducting traceback investigations to learn where the berries may have been distributed. Food Poisoning Bulletin

AWC offers "common sense" approach to improving health

22 August - From Japan to Germany, Army Wellness Centers are making a difference for Soldiers, family members, retirees and Department of the Army Civilians seeking to improve and sustain overall healthy lifestyles. Through the AWC’s six core programs, the AWC’s services have already made an impact for some service members. ... The AWC takes a look at individuals' health as a whole, not just weight or diet but evidence-based techniques to address the individual’s problems from stress and sleep to strength training and recovery. ... While there is a large emphasis on weight loss and decreasing BMI, other services include tobacco cessation, sleep, and nutrition classes to encompass all health components of an individual. Just as well, mental health is also analyzed through biofeedback to measure stress levels and discuss techniques to relieve stress. Army Times

A suicidologist’s new challenge: the George Washington Bridge

19 August - ... For the past 30 years, Dr. [Madelyn] Gould has plumbed the depths of despair, searching for ways to prevent what has exploded into one of the most significant
public health threats facing young people: suicide. ...[H]er research undergirds much of the modern thinking on the topic, including the phenomenon of suicide contagion. She has helped to establish recommendations for reporters so that they do not glamorize suicide when covering it, and she encourages those who have survived attempts at killing themselves to discuss their recovery as a way of inspiring others who feel they have lost all hope. She is also adamant about what she considers the most powerful deterrent of all: depriving people at particular risk of killing themselves of access to the means for doing so. She has urged the authorities to put barriers on bridges and other buildings, something that copious amounts of research show is effective. The New York Times

Beware of bagpipes?

22 August - A report in the journal Thorax describes a newly recognized cause of a potentially fatal lung disease: playing a contaminated wind instrument. A 61-year-old man came to a clinic in Manchester, England, with a seven-year history of dry cough and progressive breathlessness, thought to be allergies. He had been treated with immunosuppressive therapy, but his symptoms had worsened; he could hardly walk 25 yards without being out of breath. The man played the bagpipes daily as a hobby, but left his instrument at home for a three-month stay in Australia, during which his symptoms disappeared. When he resumed playing, the symptoms returned. His lung function was poor, and he was treated with antibiotics, but died six months later. Doctors took samples from his bagpipes and found six species of fungi. A saxophone and a trombone have been implicated in similar cases. The New York Times

Chemicals banned decades ago linked to increased autism risk today

23 August - Chemicals used in certain pesticides and as insulating material banned in the 1970s may still be haunting us, according to new research that suggests links between higher levels of exposure during pregnancy and significantly increased odds of autism spectrum disorder in children. According to the research, children born after being exposed to the highest levels of certain compounds of the chemicals, called organochlorine chemicals, during their mother's pregnancy were roughly 80 percent more likely to be diagnosed with autism when compared to individuals with the very lowest levels of these chemicals. ... [T]wo compounds in particular—PCB 138/158 and PCB 153—stood out as being significantly linked with autism risk. High levels of two other compounds, PCB 170 and PCB 180, were also associated with children being approximately 50 percent more likely to be diagnosed. Medical Xpress

Could mouthwash combat gonorrhoea?

23 August - ... Latest figures from Public Health England show that between 2012 and 2015 gonorrhoea infections rose by 53%, from 26,880 to 41,193. ... Condoms are the best way to stop gonorrhoea spreading, but some experts believe there may also be another opportunity - mouthwash. Studies suggest the throat could be a breeding ground for hard-
to-treat bacteria. Gonorrhoea can persist here without symptoms and swap DNA with other throat microbes that already know how to dodge certain antibiotics. Prof Christopher Fairley ... has been testing the mouthwash theory in 58 male volunteers. All of the men had detectable levels of throat gonorrhoea at the start of the trial. He asked half of them to gargle and swill for a minute with saltwater while he gave the others a branded antiseptic mouthwash, bought from a supermarket, to use instead. He retested them five minutes later to see if the gargling had helped. It appeared to, reducing the detectable amount of bacteria significantly more than the saltwater rinse. Prof Fairley says more studies are needed to check how long this effect might last and what protection it might offer.

BBC News

Mylan pledges to make EpiPen more affordable

25 August - Mylan announced a series of steps Thursday it says will make its EpiPen more affordable for some patients. The drugmaker is caught at the center of a firestorm over the rising price of prescription drugs. Mylan had raised a standard two-pack of EpiPens to about $600 over the past several years. It had cost $100 in 2009. Following a recent uproar, including a public tongue-lashing from Hillary Clinton and a senator whose daughter uses the product, Mylan NV said Wednesday it would help reduce the cost of the emergency allergy drug for people who are struggling to afford it. In a press release, Mylan said it would provide instant savings cards worth $300 to patients who have to pay full price for the drug out of pocket. That amounts to about a 50% price cut for people without insurance or for patients with high deductible plans. CNN Money

The underused HPV vaccine

22 August - ... [A]s of 2014, only 40 percent of girls and 21 percent of boys ages 13 to 17 had received all three doses of the [human papillomavirus, or] HPV vaccine, whereas 88 percent of boys and girls had been vaccinated against tetanus-diphtheria-pertussis and 79 percent had gotten the meningococcal vaccine. There are several explanations for the low rate of HPV immunization among young teens. One is that the vaccine is relatively new — it was first approved in 2006 — and expensive. ... [A]lthough now, as with other government-recommended vaccines, it is covered by insurance with no co-pay, and the federal Vaccines for Children program provides free vaccination for children who are uninsured or underinsured. ... A second obstacle to wider HPV immunization is the erroneous belief that it would promote teenage promiscuity. ... The most pernicious argument against HPV immunization involves postings on the web of undocumented horror stories that some parents attribute to the vaccine. The New York Times

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USAFCOM

Libya: Booby-trapped bicycles

24 August - ... Libyan forces are edging closer to defeating the so-called Islamic State. The militant group's mines and improvised explosive devices (IEDs) have already left hundreds of Libyan fighters dead and maimed and, as government forces continue to advance into the centre of the town, poorly equipped demining units are struggling to deal with the aftermath. International demining organisations are loath to work in Libya. ... Just 200 metres ahead of Mohammed and his colleagues, a child's bicycle lies in the middle of the road. It looks innocent but the men have spotted a trap; a thin wire leads from the bike to a rigged tank shell. Anyone attempting to use the road would have to move the bicycle, triggering the explosive mechanism. ... Retreating militants have left a trail of devices across each district of the town, many disguised as, or rigged to, everyday objects. ... [A] spokesman for the military operation in Sirte, told IRIN that mines and IEDs had been responsible for more than 80 percent of the 400 fighters killed and 20 percent of the 2,000 injured. IRIN

Nigeria: With thousands in urgent need, UN health agency scales up emergency response

22 August - The United Nations World Health Organization (WHO) is ramping up its response in north-eastern Nigeria, where initial assessments have revealed urgent health problems among populations in areas formerly held by Boko Haram insurgents. ... According to WHO, mortality rates are estimated at four times higher than emergency thresholds in some of the 15 local government areas (LGAs) formerly held by the insurgent group. Furthermore, the rate of severe acute malnutrition is estimated to be 14 per cent, measles cases have also been reported in the area, and both the cases of polio reported by the country for the first time in two years were in Borno state. One of the cases is from an LGA that is still inaccessible to health service delivery while the other is from a newly accessible one. UN News Centre

Salmonella in Africa temporarily linked to HIV epidemic

22 August - Scientists who described the genetic sequencing of a highly invasive form of non-typhoidal Salmonella (iNTS) causing an epidemic in sub-Saharan Africa said in Nature Genetics today that infection with this strain can be deadly and may be linked to HIV and resistant to several antibiotics. Infection with iNTS most often occurs in children suffering from malnutrition and in HIV-infected adults, and is surpassing Salmonella Typhi in many parts sub-Saharan Africa as the most likely cause of salmonellosis. A nonspecific fever that masquerades as malaria is the hallmark of infection, which is rarely accompanied by diarrhea. About 22% to 45% of infections can be deadly. CIDRAP News Scan (fourth item)
Iraq: Iraqi children pay high health cost of war-induced air pollution, study finds

22 August - Air pollution caused by war may be a major factor in the numbers of birth defects and cancers being reported in Iraq and other war zones, a study has suggested. Human exposure to heavy metals and neurotoxicants from the explosion of bombs, bullets, and other ammunition affects not only those directly targeted by bombardments but also troops and people living near military bases, according to research published in the scientific journal Environmental Monitoring and Assessment. Mozhgan Savabieasfahani, an Iranian toxicologist and lead author of the report, said “alarming” levels of lead were found in the “baby” or “deciduous” teeth of Iraqi children with birth defects, compared with similar teeth donated from Lebanese and Iranian children. "[T]he few investigations that have been conducted suggest sharp increases in congenital birth defects, premature births, miscarriages and leukaemia cases in Iraq and other war zones. The Guardian" 

Syria: Fearful of bombings, Syria's communities refuse new hospitals

19 August - Local communities in Syria are refusing aid agencies permission to open new hospitals out of fear the facilities will draw more bombings to the area, a medical charity said on Friday. Many hospitals have been hit or damaged during the five-year conflict, prompting opposition groups to say Syrian and Russian forces deliberately target medical buildings. Mazen Kewara of the Syrian American Medical Society (SAMS), said the charity had backed off from plans to set up at least five field hospitals in opposition-held areas over the past two years, after pressure from the local population. "Nearly 1,000 people have been killed in attacks on health centers worldwide over the past two years, almost 40 percent of them in Syria, the World Health Organization (WHO) said in May. Thomson Reuters Foundation"

Syria used chlorine in bombs against civilians, report says

24 August - Syrian military helicopters dropped bombs containing chlorine on civilians in at least two attacks over the past two years, a special joint investigation of the United Nations and an international chemical weapons monitor said on Wednesday in a confidential report. The report also found that militants of the Islamic State in Syria had been responsible for an attack last year using poisonous sulfur mustard, which, like chlorine, is banned as a weapon under an international treaty. The 95-page report, based on a yearlong investigation, represents the first time the United Nations has blamed specific antagonists in the Syrian conflict for the use of chemical weapons, which is a war crime. Previous inquiries have
determined that chemical weapons were used, but did not specify by whom.

The New York Times

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USEUCOM

France: Researchers report antibiotic resistant *E coli* in French drinking water

22 August - A team of French researchers today reported the detection of antibiotic resistant *Escherichia coli* in French drinking water supplies. [...] The researchers described finding a single *E coli* isolate containing an extended-spectrum beta lactamase (ESBL) gene similar to those previously found in humans and animals. The isolate was found among drinking water samples from 28 water supply systems located throughout France, taken from where water enters the distribution system. The locations were chosen because of multiple water quality failures. *E coli* was found in all the samples, but six isolates from six different water supplies were found to be resistant to at least one antimicrobial. [...] Although the water supply where the isolate was found has been repaired, and the isolate would probably not have been pathogenic to humans, the concern is that the reservoir for antibiotic resistance is expanding. CIDRAP News Scan (third item)

Greece bans blood donations in 12 districts over malaria – reports

21 August - Twelve districts of Greece have banned blood donations because of malaria, with four cases this year contracted domestically, local media report. In the 61 other cases recorded, the sufferers became infected on the Indian subcontinent and African states, where the disease is endemic. The districts affected stretch from the Peloponnese to Thessaloniki. Domestic cases were first reported four years ago - nearly four decades after the disease was wiped out in Greece. Budget cuts saw municipal spraying schemes to combat mosquito-born diseases being cut back. BBC News

Italy: Earthquake aftershocks hamper rescue efforts

25 August - Hundreds of aftershocks have rocked devastated areas of central Italy, hampering search efforts after a deadly earthquake. A strong tremor with magnitude 4.3 struck on Thursday afternoon, sending rescuers fleeing from already fragile buildings. About 5,000 rescue workers are combing through rubble for survivors using heavy machinery or bare hands. At least 250 people are now known to have died after Wednesday’s quake. The 6.2-magnitude quake hit at 03:36 (01:36 GMT), 100km
(65 miles) north-east of Rome in mountainous central Italy. More than 300 people have been treated in hospital and dozens are believed to be trapped under rubble. Worst affected are the towns of Amatrice, Arquata, Accumoli and Pescara del Tronto. The towns are usually sparsely populated but have been swelled by tourists visiting for summer, making estimates for the precise number missing difficult. BBC News

Study profiles impact of antimicrobial-resistant bloodstream infections within Europe

19 August - A new study of European hospitals is providing some perspective on the health and economic burden of bloodstream infections caused by antimicrobial-resistant bacteria. The study ... looked at data on more than 600,000 patients who experienced acute care episodes at 10 European hospitals in 2010 and 2011. The researchers sought to estimate the impact of bloodstream infections caused by third-generation cephalosporin-resistant Enterobacteriaceae (3GCRE), third-generation cephalosporin-susceptible Enterobacteriaceae (3GCSE), methicillin-resistant *Staphylococcus aureus* (MRSA), and methicillin-susceptible *S. aureus* (MSSA) on hospital mortality, length of stay, and hospital costs. ... Compared with non-infected patients, patients with bloodstream infections caused by 3GCRE, MRSA, and MSSA were significantly more likely to die in a hospital (with adjusted hazard ratios of 1.80, 2.42, and 1.81, respectively) and have prolonged hospital stays (9.3 days, 13.3 days, and 11.5 days). Bloodstream infections caused by 3GCSE significantly lengthened hospital stays, but not the risk of death. CIDRAP ASP News Scan (second item)

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U.S.: A natural cure for Lyme disease

20 August – ... [I]n recent decades, Lyme cases have surged, nearly quadrupling in Michigan and increasing more than tenfold in Virginia. ... What's behind the rise of Lyme? Many wildlife biologists suspect that it is partly driven by an out-of-whack ecosystem. Lyme disease is transmitted by bites from ticks that carry the Lyme-causing bacterium, *Borrelia burgdorferi*. Ticks get it from the animals they feed on, primarily mice and chipmunks. And rodents thrive in the fragmented, disturbed landscapes that, thanks to human activity, now characterize large sections of the Northeast. ... [T]here's a potential fix: allow large predators, particularly wolves and cougars, to return. They would help keep down the number of deer, which, although they don't carry the Lyme-causing bacterium, probably encourage its transmission. The New York Times
U.S.: California professor launches study on drought’s health impact

22 August - ... Kurt Schwabe at the University of California Riverside plans a statewide study to assess the drought’s effect on human health. ... It will involve a detailed analysis of data already collected on public health, which will be correlated with weather data to determine the drought’s influence. ... “There's quite a bit of information on what the short-run impacts are of drought on agriculture – things like lost jobs and reduced [crop] yields. You also see a significant amount of evidence in terms of impacts of drought on fish survival rates. And more recently, you start to hear about the potential impacts on urban water usage. ... But the real effects on livelihood are about health and well-being.” KQED Science


26 August - ... During 2013–2014, the number of drug products obtained by law enforcement that tested positive for fentanyl (fentanyl submissions) increased by 426%, and synthetic opioid–involved overdose deaths (excluding methadone) increased by 79% in the United States. Changes in synthetic opioid–involved overdose deaths among 27 states were highly correlated with fentanyl submissions but not correlated with fentanyl prescribing. Eight high-burden states were identified, and complementary data indicate increases in these states are primarily attributable to fentanyl, supporting the argument that [illicitly manufactured fentanyl] is driving increases in fentanyl deaths.

Morbidity and Mortality Weekly Update

U.S.: The high cost of prescription drugs in the United States

23/30 August - ... High drug prices are the result of the approach the United States has taken to granting government-protected monopolies to drug manufacturers, combined with coverage requirements imposed on government-funded drug benefits. The most realistic short-term strategies to address high prices include enforcing more stringent requirements for the award and extension of exclusivity rights; enhancing competition by ensuring timely generic drug availability; providing greater opportunities for meaningful price negotiation by governmental payers; generating more evidence about comparative cost-effectiveness of therapeutic alternatives; and more effectively educating patients, prescribers, payers, and policy makers about these choices. Journal of the American Medical Association

U.S.: Unconventional natural gas wells associated with migraine, fatigue, chronic nasal and sinus symptoms

25 August - New research suggests that Pennsylvania residents with the highest exposure to active natural gas wells operated by the hydraulic fracturing (“fracking”) industry are
nearly twice as likely to suffer from a combination of migraine headaches, chronic nasal and sinus symptoms and severe fatigue. ... The researchers found that 1,765 respondents (23 percent) suffered from migraines, 1,930 people (25 percent) experienced severe fatigue and 1,850 (24 percent) had current symptoms of chronic rhinosinusitis (defined as three or more months of nasal and sinus symptoms).

Johns Hopkins Bloomberg School of Public Health News

Asia: That cloth mask for smoggy days? A paper one works better.

22 August - ... Air pollution is rapidly increasing in Asian cities; it contributes to many deaths from lung disease, and studies have shown that heavy smog quickly erodes lung function. Environmental health scientists from the University of Massachusetts, above, recently began testing masks they bought in street markets in Kathmandu, Nepal. Using a Styrofoam head, they found that the type of mask that is by far the most popular — inexpensive, washable cloth rectangles held in place by ear loops — provided little protection against the smallest particles, of less than 2.5 micrometers, that penetrate deepest into the lungs. ... Cone-shaped cloth masks that cover the whole lower face and have exhalation vents did much better, removing up to 90 percent of the synthesized dust particles and almost 60 percent of the diesel exhaust that the researchers pumped through them. The biggest surprise: Cheap paper surgical masks did quite well, almost as well as the American-made N-95 masks that the researchers used for comparison. The New York Times

China: Chinese claim that world accepts its organ transplant system is rebutted

19 August - Chinese state news media and pro-Beijing newspapers in Hong Kong said on Friday that an international organ transplant conference in Hong Kong demonstrated that China’s transplant system, which for decades used organs from executed prisoners, had global backing. That assertion was disputed on Friday afternoon by the president of the Transplantation Society, a nongovernmental organization based in Montreal that had organized the meeting. At a conference session on Thursday, several leading Chinese medical specialists ... spoke about “a new era” of organ transplantation in China. ... China says it stopped using the organs of executed prisoners on Jan. 1, 2015, but doubts linger: ... “It is important that you understand that the global community is appalled by the practices
that the Chinese have adhered to in the past,” Dr. O’Connell said he told them.

The New York Times

Japan offers 'dementia awareness' courses to city workers

23 August - … Last year in Japan, 12,208 people with dementia were reported missing. Most were found alive within a week. But 479 were found dead, and 150 were never found. These numbers have been increasing every year as the number of older people in Japan continues to rise. Nearly 27 percent of the Japanese population is now 65 or older. And, as the number of older people grows, so does the number of people with Alzheimer’s disease or other dementia. The Japanese government expects that by 2025 more than 7 million of the nation’s residents will have dementia. A comprehensive plan for dealing with that expected rise in dementia cases was passed by the national government last year. NPR

Myanmar: Soldiers, residents begin cleanup after quake in Myanmar

25 August - Using brooms and their hands, soldiers and residents of an ancient Myanmar city famous for its historic Buddhist temples began cleaning up debris Thursday from a powerful earthquake that shook the region and damaged nearly 200 pagodas. At least four people were killed and at least 171 pagodas were damaged in Bagan after a 6.8 magnitude quake struck the area on Wednesday. The tremor was centered about 25 kilometers (15 miles) west of Chauk, just south of Bagan. The city is one of Myanmar’s top tourist attractions, drawing visitors from all over the world who can view a panorama of temples stretching to the horizon flanked by the Irrawaddy River. ABC News

USSOUTHCOM

Chile: Chile issues health alert after faults found in condoms

23 August - Chile’s health authorities on Tuesday issued an alert and said they were investigating reported problems with Chinese-made condoms distributed for free in family health centers nationwide. The public health institute ordered that three batches of approximately 1.7 million Kaiju condoms be withheld from distribution while it investigated reports that they broke during use and were too small. … The problems may be related to incorrect storage, said public health institute director Alex Figueroa, adding that people were being asked not to use those already distributed. Reuters
PAHO reports 3,100 new cases, mostly in the Caribbean

22 August - The Pan American Health Organization (PAHO) late last week reported 3,100 new suspected or confirmed chikungunya cases, bringing the total in the Americas this year to 250,726. The previous two reports noted increases of 617 and 32,492 cases, respectively.

... Almost all the new cases in last week’s report came from a slew of Caribbean islands reporting for the first time in 2016. Leading the pack was Aruba, with 704 cases, and Trinidad and Tobago, with 590. Dominica and Jamaica were next, with 271 and 205, respectively. As with the previous report, many countries have not reported on their chikungunya status for many weeks. CIDRAP News Scan (first item)