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Army Public Health Weekly Update

Army Public Health Center

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This Public Health Information Paper reviews the currently available water reuse standards for gray water and assesses their applicability to water reuse for specific activities performed in contingency operations. The assessment is intended to enhance risk analyses and guideline development regarding military water reuse.

The most common water reuse source stream is comprised of laundry, showering, and dishwashing wastewaters. The assessment is intended to enhance risk analyses and guideline development regarding military water reuse.

U.S.-led forces appear to be using white phosphorus in populated areas in Iraq and Syria

9 June - The U.S.-led coalition in Iraq and Syria appears to have used white phosphorus-loaded munitions on at least two occasions in densely populated areas of Mosul and in the Islamic State’s de facto capital of Raqqa, according to videos posted online and human rights groups. The often-controversial munitions are common in western militaries and are used primarily to create smoke screens, though they can also be dropped as an incendiary weapon. When a white phosphorus shell explodes, the chemical inside reacts with the air, creating a thick white cloud. When it comes in contact with flesh, it can maim and kill by burning to the bone. While international humanitarian law stipulates that civilians must be protected from all military operations, it also says that countries must take even more care when using white phosphorus. Additionally, because of the weapon’s ability to cause grievous and inhumane injuries, rights groups caution against using white phosphorus to kill enemy troops if other weapons are available. The Washington Post


May 2017 - ... From 2008 to 2016, there were 342 and 1,491 incident cases of acute and chronic hepatitis C, respectively, among active component members of the U.S. Armed Forces; crude overall incidence rates during the period were 2.8 (acute) and 12.2 (chronic) cases per 100,000 person-years. Annual incidence rates of chronic hepatitis C decreased over the surveillance period; however, rates of acute hepatitis C remained steady. There were 141 acute and 587 chronic incident cases among reserve/guard service members, with annual counts of both acute and chronic cases decreasing over the surveillance period. In addition, there were 2,541 acute and 21,418 chronic cases among non-service member beneficiaries, with annual counts of acute and chronic cases also decreasing steadily over the surveillance period. Given recent pharmaceutical advances in treatment, screening and linkage to care are critical to improving health outcomes for those with HCV infection. Medical Surveillance Monthly Report

U.S. SOUTHCOM

- Brazil: Two more Brazilian states report yellow fever
- PAHO reports small increase in chikungunya cases
Environmental Conditions at Karshi Khanabad (K-2) Air Base, Uzbekistan: Information for Service Members and Veterans
This updated information sheet provides background information and answers to some questions regarding environmental exposures at K-2 and risk of potential long-term adverse health effects associated with being at K-2.

GLOBAL

CDC: 'Chronic Lyme' treatments carry serious risk
15 June - The Centers for Disease Control and Prevention (CDC) published five case studies today ... of patients who experienced serious complications and bacterial infections after receiving treatments for "chronic Lyme" disease. There is no medical definition of "chronic Lyme" and no treatment guidelines; instead, the term is used by patients and some providers to describe several symptoms, including fatigue and muscular pain, attributed to prior infection with Lyme. ... Some practitioners, including alternative medicine professionals who advertise themselves as being "Lyme literate" prescribe long-term courses of antibiotics and immunoglobulin therapy. But the CDC warns that treating an undiagnosed condition with an unregulated treatment plan can be dangerous for patients. CIDRAP

Child poverty, hunger widespread in world’s richest countries
15 June - A new report by the UN Children’s Fund (UNICEF) finds child poverty and hunger are widespread in 41 of the world's richest countries. The report says one in five children in rich countries lives in poverty, while one in eight often do not have enough to eat. ... The seven top ranked countries in UNICEF’s League Table of 41 countries includes all the Nordic countries ... as well as Germany and Switzerland. The seven countries holding up the bottom are Chile, Mexico, the United States, Bulgaria, Romania, Israel and Turkey. Cuesta tells VOA the United States, which ranks 37th does not perform well in areas such as poverty, hunger, good health and well-being, and quality education. VOA

Could drones help save people in cardiac arrest?
13 June - Drones could soon be dropping off packages at customers’ doors. But researchers in Sweden have drones in mind for a different, potentially life-saving delivery: automated external defibrillators, or AEDs. Using drones to carry AEDs to people who are in cardiac arrest could reduce the time that elapses between when people go into cardiac arrest and when they receive the first shock from an AED, the researchers say. The more time a person spends in cardiac arrest before being shocked with an AED, the less chance they have of survival. ... The researchers used drones to deliver AEDs to places in a rural area of Sweden where people had gone into cardiac arrest between 2006 and 2014. ... In each of the 18 flights that the drones made, they beat the ambulance time. The median reduction in response time was about 16 ½ minutes. And the median time from dispatch to drone launch was 3 seconds, while it took emergency medical services a median time of 3 minutes to hit the road. NPR
Ebola vaccine trial finds good antibody persistence for VSV-EBOV

12 June - In a new study on the Ebola vaccine that has already shown effectiveness in an earlier phase 3 trial during West Africa’s outbreak, researchers found that antibodies persist at least for a year and that the vaccine was well tolerated. A team from NewLink Genetics and Merck—the two groups that have licensed the vaccine developed by the Public Health Agency of Canada—published their phase 1b findings Jun 9. ... [The] dose used in the outbreak clinical setting appeared to be well tolerated; most adverse events were mild-to-moderate, occurred soon after vaccination, were of short duration, and were more common at the higher vaccine doses. Nineteen (4.5%) reported temporary joint pain that didn’t seem related to the dose, but did seem to be related to increased age. The group saw robust antibody responses that have been reported by other groups, and at all doses tested, neutralizing antibodies persisted for at least 1 year after immunization.

CIDRAP News Scan (first item)

Environmental exposures to lead, mercury, and cadmium and hearing loss in adults and adolescents: KNHANES

8 June - ... [F]ew epidemiological studies have investigated the association between heavy metals and hearing loss in a general population that includes adults and adolescents. ... We analyzed cross-sectional data from 5,187 adults and 853 adolescents in the Korean National Health and Nutrition Examination Survey 2010–2012. Pure-tone average (PTA) of hearing thresholds at high frequency (3, 4, and 6 kHz) were computed, and hearing loss was defined as a PTA>25 dB in adults and PTA>15 dB in adolescents. In adults, the highest (vs. lowest) quartiles of blood lead and cadmium were associated with 1.70 (95% CI: 1.25, 2.31) and 1.47 (95% CI: 1.05, 2.05) odds ratios for high-frequency hearing loss (p-trend<0.001 and=0.007), respectively. In adolescents, the highest quartile (vs. lowest) of blood cadmium had an odds ratio of 3.03 (95% CI: 1.44, 6.40) for high-frequency hearing loss (p-trend=0.003), but blood lead was not associated with hearing loss. No significant association between blood mercury and hearing loss was suggested in either adults or adolescents.

Environmental Health Perspectives

ICU-room sink removal may cut bacterial colonization

12 June - Dutch investigators found that removing sinks from intensive care unit (ICU) rooms and using a “water-free” method of care reduced patient colonization with gram-negative bacilli (GNB). ... While sinks are considered a best practice in ICU design, a number of studies have implicated their presence as a factor in hospital-associated infections, according to the authors. After an Enterobacter outbreak in their hospital ICU was linked to contaminated sinks in 2014, the researchers decided to test the effect of removing sinks from the unit. ... The overall GNB colonization rate dropped from 26.3 to 21.6 GNB/1,000 ICU admission days. The reduction in GNB colonization rate was greater in patients who spent more days in the ICU: from a 1.22-fold reduction for those with at least a 2-day stay
Updated CDC Travel Health Book Now Online

CDC’s 2018 Yellow Book, the definitive guide for healthy international travel, is now available for free online and for order in hard copy. The 2018 edition features significant revisions, updates to important travel health recommendations, new sections, and a fresh design that makes the guide easier to read.

The 2018 edition includes new features:

- The latest information about infectious disease threats such as Zika, Ebola, and MERS.
- New cholera vaccine recommendations.
- Updated guidance for use of antibiotics to treat travelers’ diarrhea.
- Travel health recommendations for Cuba and Myanmar (Burma).
- New design for improved readability.

Opioid dealers embrace the dark web to send deadly drugs by mail

10 June - ... In a growing number of arrests and overdoses, law enforcement officials say, the drugs are being bought online. Internet sales have allowed powerful synthetic opioids such as fentanyl ... to reach living rooms in nearly every region of the country, as they arrive in small packages in the mail. The authorities have been frustrated in their efforts to crack down on the trade because these sites generally exist on the so-called dark web, where buyers can visit anonymously using special browsers and make purchases with virtual currencies like Bitcoin. The problem of dark web sales appeared to have been stamped out in 2013, when the authorities took down the most famous online marketplace for drugs, known as Silk Road. But since then, countless successors have popped up, making the drugs readily available to tens of thousands of customers who would not otherwise have had access to them. The New York Times

Relieving PTSD symptoms may cut risk of myocardial infarction and stroke

13 June - Women with severe posttraumatic stress disorder (PTSD) symptoms have a nearly 70% increase in the incidence of cardiovascular disease (CVD). ... The researchers analyzed data from 49,859 women in the Nurses’ Health Study II. Over 20 years, there were 552 confirmed cases of myocardial infarction or stroke. Women with 6 to 7 symptoms of trauma and PTSD had the highest risk. Women with trauma but no PTSD symptoms had a 30% higher risk. When women who said illness was their worst trauma were excluded, the risk of CVD doubled among those with trauma and severe PTSD symptoms and increased by 88% in women with trauma and moderate PTSD symptoms. Strikingly, the researchers also found that when the PTSD symptoms declined so did the CVD risk. Federal Practitioner

Review shows weaker measles immune response with earlier vaccination

9 June - Receiving measles vaccine earlier in infancy may be related to a poorer immune response compared with receiving it a bit later, findings that support US vaccine schedules, according to a meta-analysis published yesterday in Clinical Infectious Diseases. ... The researchers found that, when they divided children by month of vaccination (11, 12, 13-14, and 15-22), the percentage of vaccine recipients testing seronegative for measles 6 weeks post-vaccination was 8.5%, 3.2%, 2.4%, and 1.5%, respectively. Except for certain high-risk groups, the US Centers for Disease Control and Prevention recommends a first dose of MMR at 12 months through 15 months. A second dose should be given at 4 through 6 years of age, but it can be given earlier if at least 28 days have passed since the first dose. CIDRAP News Scan (second item)
RNA errors linked to ALS and dementia

14 June - Fixing glitches in the assembly of RNA may hold the key to treating ALS and frontal lobe dementia, according to a Harvard Medical School (HMS) study. ... Researchers found that a genetic mutation often linked to those diseases creates a toxic protein that disrupts the editing, or splicing, of RNA, the molecular messengers that turn genes into functional proteins. "What we are finding is that disruptions in RNA splicing appear to be a common thread linking these motor neuron disorders," said senior study author Robin Reed, professor of cell biology at HMS. "Much more research is needed, but if we could correct splicing errors with so-called splicing modulator compounds, we could prevent disruptions ... which may have efficacy for the treatment of ALS and FTD." Harvard Gazette

Snakebite finally makes a WHO list of top global health priorities

12 June - In a decision public health activists are calling both landmark and long overdue, the World Health Organization has placed snakebite envenoming on its list of top 20 priority neglected tropical diseases — giving it the highest possible ranking for diseases of its kind. The move could spur new efforts in the decades-long battle to limit the global toll of snakebite, which kills more than 100,000 each year and maims and cripples millions more. ... The WHO's list includes Chagas disease, rabies, leprosy — and now snakebite. STAT

Surveillance for good? Facebook tracks disaster victims

8 June - In the wake of a disaster or even a sudden crisis ... the first place many of us turn for information and reassurance about the safety of our loved ones is social media. ... [T]hat information has been of little use to those trying to respond. Other than using hashtags to trawl through thousands of individual Twitter and Facebook posts, there has been no way to use social media to rapidly form an accurate picture of where a disaster has hit, how many people have been affected, and where they are fleeing to. That could change with the launch on Wednesday of Facebook’s “disaster maps”. The initiative ... will use aggregated and anonymised Facebook user data to produce three different kinds of maps: where people are checking in as safe; where populations are before, during, and after a natural disaster; and where people are moving to in the hours after disaster strikes. The mapping relies largely on Facebook users on mobile devices who have their location settings turned on. ... They can also show where people are compared to a normal day and, critically, can update in near real time. IRIN

Vitamin A supplement may thwart tuberculosis infection

15 June - ... In a study of 6,000 people in Lima, Peru, researchers found that those whose diets were lacking in vitamin A had a 10-fold increased risk of developing TB from an infected family member. Young people, between the ages of 10 and 19, were found to have 20 times the risk of developing tuberculosis through close exposure to an infected loved one. Researchers at Harvard Medical School found that having a vitamin A deficiency,
common among some 30 percent of the world’s population in mostly developing nations, was a potent predictor of TB disease risk. They said supplementing peoples’ diets with vitamin A may be a powerful tool for preventing TB. VOA

WHO launches new emergency preparedness and response portal

15 June - The World Health Organization (WHO) today announced the launch of an online video series designed to arm public health responders with the latest information on epidemics, pandemics, and health emergencies. The OpenWHO platform has three main channels. One is "Outbreak," which features scientific information on high-threat diseases such as Ebola, yellow fever, and pandemic influenza. The others include "GetSocial!" with a focus on risk communication, community engagement, and social mobilization, and "Ready for Response," which includes courses on the WHO’s emergency response framework, the incident management system, and predeployment training for those who may be sent for emergency response. CIDRAP News Scan (fourth item)

ZIKA VIRUS

5% of U.S. pregnant women with Zika had baby with a birth defect

8 June - Five percent of pregnant women with a confirmed Zika infection in the United States territories, including Puerto Rico, went on to have a baby with a related birth defect, according to the most comprehensive report to date from federal officials. ... Previously, there were not enough births following exposure to the Zika virus to make such estimates. This new report reviewed nearly 2,550 cases of women with possible Zika virus infection who completed pregnancies — meaning they gave birth, miscarried or experienced stillbirth — from Jan. 1, 2016 to April 25, 2017. Roughly 1,500 of those women had Zika infection actually confirmed by laboratory testing. Eight percent of offspring of pregnant women in U.S. territories with a positive nucleic acid test for Zika infection in the first trimester had birth defects linked to the virus. By contrast, 5 percent of these infants did when infection occurred in the second trimester, and 4 percent in the third trimester. The New York Times

Congenital Zika infection linked to problems with swallowing

13 June - Nine Brazilian infants with congenital Zika infections developed moderate to severe dysphagia, or problems with swallowing, increasing the risk of aspirating liquids and choking, according to a report yesterday in Emerging Infectious Disease. The infants, all of whom had microcephaly, showed delays in the oral phase, with eight out of nine exhibiting delayed initiation of the pharyngeal phase of swallowing and all showing general oral
dysfunction. Onset of dysphagia began by the age of 3 months, and all the infants had difficulty swallowing, characterized by premature spillage, and marked loss of voluntary activity during the oral phase of swallowing. CIDRAP News Scan (first item)

Is Zika dangerous for kids? It probably depends on the age

12 June - Zika ... recommendations for pregnant women haven’t changed: Pregnant women — and those trying to get pregnant — should not travel to places where the Zika virus is circulating. ... But what about babies? Or kids? Is it safe to travel with them? "So we don’t have tons of data on that particular question," says Dr. Neil Silverman, at the Center for Fetal Medicine in Los Angeles. But, he says, doctors can offer some recommendations based on what’s known about how Zika damages developing brains. The biggest concern is with infants. ... The problem is that Zika attacks developing brain cells. They’re called neural progenitor cells. And newborns’ brains are filled with them, just like the brains of fetuses late in pregnancy. ... By about age 2, many of these developing brain cells are gone. “And the majority of brain development has already occurred,” Silverman says. So Zika’s danger is likely reduced. NPR

Is Zika still a problem in Florida and the Caribbean?

12 June - ... Last week, the Centers for Disease Control and Prevention lifted the last travel warning for southern Florida. The agency is no longer recommending that pregnant women avoid the region. ... The CDC outlines the precautions needed in Miami-Dade County and other areas of the U.S. where Zika has circulated, such as Brownsville, Texas: ...

- Expectant couples should continue to use condoms "every time they have sex (including vaginal, anal, and oral sex),” the CDC writes, because the Zika virus can stay in the semen of an infected man for months.
- Pregnant women should continue to get tested for Zika up to eight weeks after the travel ban has been lifted for a region — which would be until about August of 2017 for South Florida. ...

Although Zika cases have dropped across the Caribbean and Latin America, the CDC’s travel recommendations haven’t changed.

- Pregnant women should not travel to places where Zika is circulating. If a spouse travels to one of these areas, the couple should use condoms for at least six months.
- Couples trying to get pregnant should also not travel to these regions. If they must, the CDC recommends waiting at least six months before trying to conceive after a man returns from a country with Zika and waiting at least eight weeks after a woman returns. NPR
CDC: Flu View - Weekly U.S. Influenza Surveillance Report

2016-2017 Influenza Season Week 22 ending June 3, 2017:
Based on National Center for Health Statistics (NCHS) mortality surveillance data available on June 8, 2017, 5.7% of the deaths occurring during the week ending May 20, 2017 (week 20) were due to P&I. This percentage is below the epidemic threshold of 6.7% for week 20.

China H7N9 bird flu death toll rose to 37 in May: health authority

12 June - China reported 37 human deaths from H7N9 bird flu in May, the national health authority said on Monday, up from 24 in April. It also reported 72 cases of human infection from H7N9 bird flu during May, according to a statement posted on the website of the National Health and Family Planning Commission. Reuters

Johnson & Johnson's flu drug succeeds in mid-stage trial

14 June - Diversified healthcare company Johnson & Johnson said on Wednesday its experimental flu drug significantly reduced the presence of the virus in patients with a type of influenza in a mid-stage study. With its antiviral drug, pimodivir, J&J aims to help treat influenza patients who have developed resistance to existing antiviral drugs as well as address the lack of approved medications for people hospitalized with the virus, the company said. ... Pimodivir targets another part of the viral replication process when compared to oseltamivir, and if successful, could treat influenza A patients who have developed resistance to existing treatments. Reuters

NHRC: Febrile Respiratory Illness Surveillance Update

8 June:
- *C. pneumoniae* and rhinovirus positive samples identified at a San Diego warfare training school.
- Acute gastroenteritis recruit and febrile respiratory illness rates June - low.
- Febrile respiratory illness cases: 10 positive of 29 military recruits tested.

Naval Health Research Center

NSAID-macrolide-antiviral combination improves mortality in flu

9 June - Optimization of the treatment of influenza is important for clinical care as well as pandemic preparedness. In addition to standard antiviral treatment, there has been interest
in augmented treatment with immune modulating drugs. A new study from Hong Kong, published in Chest, reports on the results of a phase IIb/III clinical trial that combined the nonsteroidal anti-inflammatory drug (NSAID) naproxen and the macrolide antibiotic clarithromycin—both of which are known to possess both antiviral and immunomodulating activity—with oseltamivir and broad spectrum antibiotics in the treatment of H3N2 influenza A pneumonia. Clinicians’ Biosecurity News

Three mutations could make bird flu a potential pandemic: study

15 June - Scientists have identified three mutations that, if they occurred at the same time in nature, could turn a strain of bird flu now circulating in China into a potential pandemic virus that could spread among people. The flu strain, known as H7N9, now mostly infects birds but it has infected at least 779 people in outbreaks in and around China, mainly related to poultry markets. ... The team’s findings, published in the journal PLoS Pathogens on Thursday, showed that in laboratory tests, mutations in three amino acids made the virus more able to bind to human cells - suggesting these changes are key to making the virus more dangerous to people. Reuters

WHO: Influenza Update

12 June - In the temperate zone of the southern hemisphere, influenza activity started to increase slowly but remained low in general. Influenza activity in the temperate zone of the northern hemisphere continued to decrease. Worldwide, influenza B viruses were predominant. WHO

VETERINARY/FOOD SAFETY

Clinical and laboratory evidence of Haff disease – case series from an outbreak in Salvador, Brazil, December 2016 to April 2017

15 June - We describe a series of 15 Haff disease cases from an outbreak in Salvador, Brazil, starting early December 2016. Eleven cases were grouped in four family clusters of two to four individuals, four were isolated cases. All but one patient consumed cooked fish; 11 within 24h before symptoms onset. Cases consumed ‘Olho de Boi’ (Seriola spp.) and ‘Badejo’ (Mycteroperca spp.). A total of 67 cases were detected, the last case was reported on 5 April 2017. Eurosurveillance
Environmental watchdog group warns of lead in baby food

15 June - ... The [Environmental Defense Fund] group looked at data from more than 12,200 food samples that were analyzed from 2003 to 2013 as part of the Food and Drug Administration's Total Diet Study, which tracks nutrients, pesticides and metals. What it found was striking. Of the 2,164 baby food samples, 20 percent had detectable levels of lead. Of the 10,064 general food samples, 14 percent contained detectable lead levels. The types of baby food most affected included grape, apple, pear and mixed fruit juices; root vegetables such as sweet potatoes and carrots; and arrowroot cookies and teething biscuits. The group also found that more baby food versions of apple and grape juice and carrots had detectable lead than the “regular” versions. While the amount of lead found in most samples was tiny, Sarah Vogel, vice president for health at the Environmental Defense Fund, said the results were “concerning” especially for children younger than 6.

The Washington Post

Mars recalls chocolates over salmonella fear

9 June - Chocolate maker Mars is recalling some bars of Galaxy, Maltesers Teasers and bags of Minstrels due to the "potential presence of salmonella". Mars said the products, for sale in the UK and Ireland, should not be eaten. The recall began after tests showed salmonella may be in ingredients. "We are working closely with the relevant food safety authorities and our customers to ensure that the affected products are no longer available for purchase," Mars said. Mars said thousands of potentially affected chocolates - fewer than 3,000 - could already have been sold to customers. BBC News

Maryland cemetery to offer burial of military working dogs, service dogs alongside owners

9 June - A new section in a Maryland cemetery will be open to veterans who wish to be buried alongside their service animals or military working dogs. Resthaven Memorial Gardens, on the northern edge of Frederick along the Monocacy River, has opened the Faithful Companions Honor Garden, which features larger burial spaces designed to accommodate such final requests. Military Times

WELLNESS

19-year-olds as sedentary as 60-year-olds, study suggests

15 June - Physical activity among children and teens is lower than previously thought, and, in another surprise finding, young adults after the age of 20 show the only increases in
activity over the lifespan, suggests a [new] study. And, the study found, starting at age 35, activity levels declined through midlife and older adulthood. ... “Activity levels at the end of adolescence were alarmingly low, and by age 19, they were comparable to 60-year-olds,” says the study’s senior author, Vadim Zipunnikov, assistant professor in the Bloomberg School’s Department of Biostatistics. “For school-age children, the primary window for activity was the afternoon between two and six P.M. So the big question is how do we modify daily schedules, in schools for example, to be more conducive to increasing physical activity?” Johns Hopkins Bloomberg School of Public Health News

Drinking in pregnancy tied to subtle changes in babies’ faces

9 June - Women who drink even a little bit of alcohol during pregnancy may be more likely than other mothers to have babies with slight facial abnormalities that have been linked to developmental problems, a recent study suggests. When researchers examined data from facial images for 415 one-year-old children, they found subtle changes in babies’ faces mostly around the nose, eyes and lips associated with almost all levels of alcohol exposure regardless of whether drinking occurred only in the first trimester or throughout the pregnancy. ... “This means that any level of alcohol contributes to the way the face is formed and raises questions about the possible impact on brain development, which is the subject of further research,” [Evelyne] Muggli said by email. Reuters

Drug that creates a 'real sun-tan' could prevent cancer

13 June - Scientists have developed a drug that mimics sunlight to make the skin tan, with no damaging UV radiation involved. The drug tricks the skin into producing the brown form of the pigment melanin in tests on skin samples and mice. ... The team at Massachusetts General Hospital hope their discovery could prevent skin cancer and even slow the appearance of ageing. ... The drug is rubbed into the skin to skip the damage and kick-start the process of making melanin. Dr David Fisher [says] ... "Dark pigment is associated with a lower risk of all forms of skin cancer - that would be really huge." BBC News

FDA delays rolling out new nutrition facts label

13 June - The U.S. Food & Drug Administration on Tuesday delayed indefinitely implementation of a new nutrition facts label that would enlarge calorie counts, itemize added sugar and bring serving sizes in line with actual average portions. ... In a statement on its website, the FDA said additional time would "provide manufacturers covered by the rule with the necessary guidance from FDA." The agency did not say how much additional time companies would be given, or when it would announce the time frame, saying only it would make an announcement "at a later time." Reuters
Forget smartwatches: This tattoo could soon track your health

15 June - ... Researchers from MIT and Harvard Medical School have teamed up to create DermalAbyss: a project that replaces traditional tattoo ink with biosensors that respond to pH, sodium, and blood sugar levels by changing color. ... A diabetic, for example, [would] simply need to observe their tattoo like most people normally would anyway -- a higher blood sugar level would be indicated by a color change from blue to brown. ... [A] more common health problem, dehydration, can also be monitored through a sodium-sensing ink that works by turning a more intense green (under UV light) as salt levels increase. There's a pH sensor that also fluoresces under UV light, and a second pH sensor that detects shifts in alkaline levels by changing from purple to pink. CNET

More than 10 percent of world’s population is obese, study finds

12 June - More than 10 percent of the world’s population is now obese, a marked rise over the last 30 years that is leading to widespread health problems and millions of premature deaths, according to a new study, the most comprehensive research done on the subject. ... The study showed that the problem had swept the globe, including regions that have historically had food shortages, like Africa. The study ... looked at 195 countries, essentially the world’s population, finding that rates of obesity at least doubled in 73 countries — including Turkey, Venezuela and Bhutan — from 1980 to 2015, and “continuously increased in most other countries.” Analyzing some 1,800 data sets from around the world, researchers found that excess weight played a role in four million deaths in 2015, from heart disease, diabetes, kidney disease and other factors. The per capita death rate was up 28 percent since 1990 and, notably, 40 percent of the deaths were among people who were overweight but not heavy enough to be classified as obese. The New York Times

Snus linked to asthma and sleep problems

14 June - Snus, a moist, smokeless tobacco product, may contribute to breathing and sleep problems, Swedish researchers report. Based on questionnaires answered by more than 16,000 never-smokers in Sweden, researchers found that snus users were over 50 percent more likely than non-users to have asthma. In addition, snus users were 37 to 59 percent more likely to snore and have trouble falling asleep, the study found. Snus, which was developed in Sweden, usually comes in a small pouch and users tuck a pinch of it between the gums and upper lip. ... All in all, participants who reported having any respiratory symptoms were more likely to be smokers and dual users of cigarettes and snus. However, snus users were more likely to suffer from wheezing and night-time chest tightness, chronic bronchitis, and chronic nose and sinus problems, when compared with participants who were completely tobacco-free. Reuters
Teenagers’ tobacco use hits a record low, with a sharp drop in e-cigarettes

15 June - Teenagers’ use of e-cigarettes fell sharply last year, while overall tobacco use declined to a new low, according to data that some antismoking advocates said could signal a turning point in the decades-long effort against youth smoking. The Centers for Disease Control and Prevention’s annual report on youth and tobacco found that 11.3 percent of high school students used e-cigarettes in 2016, compared with 16 percent the year before. That’s the first drop since the CDC started keeping track of e-cigarettes in 2011. In addition, just 8 percent of high-schoolers smoked cigarettes last year, while a little over 20 percent reported using “any tobacco product,” which includes cigars, hookahs, pipes, smokeless tobacco and small, leaf-wrapped cigarettes called bidis, as well as regular and e-cigarettes. Both those numbers are the lowest on record, the agency said. The Washington Post

U.S.: More than a name change: AIDS.gov becomes HIV.gov

5 June - The U.S. Department of Health and Human Services today officially changed the name of AIDS.gov, the federal government’s leading source for information about HIV, to HIV.gov. The announcement coincides with the 36th anniversary of the Centers for Disease Control and Prevention’s first report of the initial cases of what would become known as AIDS. The name change reflects major scientific advances that have transformed an almost universally fatal disease to a condition that, if diagnosed and treated early and continuously, can be controlled and prevented from progressing to AIDS. In fact, there are more people living with HIV in the United States now than people living with AIDS. HHS

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Democratic Republic of the Congo: Circulating vaccine-derived poliovirus type 2

13 June - In the Democratic Republic of the Congo (DRC), two separate circulating vaccine-derived poliovirus type 2s (cVDPV2s) have been confirmed. The first cVDPV2 strain has been isolated from two acute flaccid paralysis (AFP) cases from two districts in Haut-Lomami province, with onset of paralysis on 20 February and 8 March 2017. The second cVDPV2 strain has been isolated from Maniema province, from two AFP cases (with onset of paralysis on 18 April and 8 May 2017) and a healthy contact in the community. WHO
Somalia: Cholera in Somalia

15 June - The Ministry of Health of Somalia has reported 2429 AWD/cholera cases and 19 deaths for week 23 (5 - 11 June 2017). Of these, 460 cases (19% of the total cases) were reported from Wadajir district in Banadir region. The cholera outbreak which started in January 2017 has seen a cumulative total of 51,036 cases including 782 deaths. The case-fatality rate of 1.6% remains above the emergency threshold of 1%. Timely and effective interventions have reduced the number of new cholera cases overall, however, new cases continue to be reported certain areas. ReliefWeb

Somalia: Turkish aid ship carrying 13,000 tons of supplies arrives in Somalia

15 June - An aid ship belonging to the Turkish Red Crescent aid organization, Kızılay has arrived in the Somali capital Mogadishu with 13,000 tons of aid to be distributed across the country. The "Sebat" ship is part of a Kızılay campaign started by President Recep Tayyip Erdoğan to relieve the risk of famine in East Africa and Yemen, where humanitarian crisis is looming. ... Kızılay stated that the 13,000 tons of aid will be unloaded on June 17, after which they will be distributed to the needy. ... Supplies include sugar, flour and other necessities, sufficient to feed 3 million people for one month. The ship is also carrying medicines, medical supplies, a diagnostic laboratory and construction equipment. ... The head of Red Crescent relief organization Kerem Kınık stated that this was the 12th Kızılay ship to have reached Somalia so far. A further two ships have been prepared, with the next one going to Yemen. Daily Sabah

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Afghanistan reports another wild poliovirus case

12 June - Afghanistan recently reported its fourth wild poliovirus case of the year, the Afghanistan Times reported today, citing the country’s health ministry. The patient is a 5-month-old boy from Helmand province who is experiencing paralysis. The illness is the second this year from Helmand province. According to the report, the area has been covered by recent vaccination campaigns, but the boy’s parents had refused to immunize him. CIDRAP News Scan (third item)

Iraq: Iraq displaced hit by food poisoning in camp near Mosul

13 June - Hundreds of people have fallen ill from suspected food poisoning at a camp for displaced people near the Iraqi city of Mosul. People were said to be vomiting and suffering
dehydration after an iftar meal, to break the daily Ramadan fast. ... About 800 cases of food poisoning in the camp have been recorded, with 200 people taken to hospital, the UN refugee agency, UNHCR, said in a statement. ... The food, containing beans, chicken and yoghurt, was prepared in a restaurant in Irbil and brought to the camp by a Qatari charity. 

BBC News

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

13 June - Between 1 and 10 June 2017, the national IHR focal point of Saudi Arabia reported 35 additional cases of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) infection including three fatal cases and one death among previously reported cases (case number 5 in the Disease Outbreak News published on 6 June 2017). WHO

Syria: Polio outbreak in Syria poses vaccination dilemma for WHO

9 June - Vaccinating too few children in Syria against polio because the six-year-old war there makes it difficult to reach them risks causing more cases in the future, the World Health Organization (WHO) said on Friday, posing a dilemma after a recent outbreak. Two children have been paralyzed in the last few months in Islamic State-held Deir al-Zor in the first polio cases in Syria since 2014 and in the same eastern province bordering Iraq where a different strain caused 36 cases in 2013-2014. Vaccinating even 50 percent of the estimated 90,000 children aged under 5 in the Mayadin area of Deir al-Zor would probably not be enough to stop the outbreak and might actually sow the seeds for the next outbreak, WHO’s Oliver Rosenbauer said. Immunisation rates need to be closer to 80 percent to have maximum effect and protect a population, he told a briefing. “Are we concerned that we’re in fact going to be seeding further future polio vaccine-derived outbreaks? ... Absolutely, that is a concern. And that is why this vaccine must be used judiciously and to try to ensure the highest level of coverage,” Rosenbauer said. “This is kind of what has become known as the OPV, the oral polio vaccine paradox,” he said. Reuters

Syria: Syrian doctors plead for help, fearing the world is 'bored' with their conflict

13 June - A group of Syrian doctors based in rebel-held provinces said on Tuesday that aid had dropped markedly over the last two months because donors were losing interest, a factor that will make it harder for them to handle government assaults. Tens of thousands of displaced Syrians have found refuge in the northern province of Idlib, which borders Turkey. It is a stronghold of opposition forces, including Islamist-led rebel groups. "The situation in Idlib is very bad because many organizations have stopped their support," said Dr Farida, the last obstetrician-gynecologist to be evacuated from rebel-held eastern Aleppo to Idlib earlier this year. ... The three-doctor delegation from the Syrian American Medical Society Foundation (SAMS) was in Paris and will travel to the Netherlands and Luxembourg to get
Yemen: Red Cross warns of 'unprecedented' cholera cases in Yemen

13 June - The International Committee of the Red Cross is warning of unprecedented rates of cholera cases in war-torn Yemen, one of many similar warnings from international health organizations in the past few months. "More than 5,000 suspected new cases have been reported daily during the past week," said Maria del Pilar Bauza Moreno, ICRC health coordinator in Yemen. "The spread of the disease, which started just over a month ago, is accelerating." Two years of armed conflict have taken a toll on medical facilities in the country, as more than half of Yemen's facilities, which are now operated by Houthi rebels, no longer function. The United Nations says about 17 million of Yemen's 26 million people lack sufficient food and at least three million malnourished children are in "grave peril." VOA

Europe: EU nurse applicants drop by 96% since Brexit vote

12 June - There has been a sharp drop in nurses registering to work in the UK since the EU referendum, figures suggest. Last July, 1,304 nurses from the EU joined the Nursing and Midwifery Council register, compared to 46 in April this year, a fall of 96%. The Health Foundation said the findings could not be more stark and said they should act as a "wake-up call". But the NMC said the introduction of English language testing for EU nurses is also likely to have played a role. It comes as the NHS is already struggling with nurse vacancies and, without this supply line, shortages could get worse. In May, research by the Royal College of Nursing found one in nine posts in England was vacant. BBC News

Russia: On the front lines of Russia's 'staggering' HIV epidemic

8 June - ... According to the United Nations' UNAIDS program, Russia had the third-highest number of new HIV infections globally in 2015, behind South Africa and Nigeria. ... The Russian Federal AIDS Center reports that infection rates grew at an average of 10% annually for the past five years. ... Experts like [Vinay] Saldanha argue that the worsening HIV epidemic in Russia is due to a perfect storm of factors, including questionable government policies and neglected societal problems. ... The WHO provides a road map for societies to battle against the spread of the disease. But in Russia, several recommendations with a proven track record for harm reduction have yet to be fully implemented. ... In Russia, barely
a third of all diagnosed HIV cases are treated with antiretroviral drugs, Dara said. CNN

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U.S.: Hearing aids at the mall? Congress could make it happen

12 June - ... If legislation now making its way through Congress succeeds, [stores] will ... offer hearing aids. You’ll try out various models — they’ll all meet newly established federal requirements — to see what seems to work and feel best. ... If you want assistance, you might pay an audiologist to provide customized services, like adjusting frequencies or amplification levels. But you won’t need to go through an audiologist-gatekeeper, as you do now, to buy hearing aids. ... Instead of spending an average of $1,500 to $2,000 per device (and nearly everyone needs two), you’ll find that the price has plummeted. You might pay $300 per ear, maybe even less. ... That, at least, represents the future envisioned by supporters of the Over-the-Counter Hearing Aid Act of 2017, which would give the Food and Drug Administration three years to create a regulatory category for such devices and to establish standards for safety, effectiveness and labeling. The New York Times

U.S.: Quantity over quality? Minorities shown to get an excess of ineffective care

9 June - ... [According to a new study, minorities are] more likely to receive an abundance of ineffective services. ... Researchers analyzed Medicare administrative data from 2006 to 2011 for beneficiaries in the traditional Medicare program who were 65 or older. ... Among the low-value services that researchers studied, black and Hispanic beneficiaries were significantly more likely to receive many of them than were whites. For example, 17.4 percent of black patients and 12.8 percent of Hispanics with advanced dementia received feeding tubes during the study period, compared with just 4.6 percent of white patients. Similarly, while 14.9 percent of white patients received cardiac testing before cataract surgery, the figures for blacks and Hispanics were higher, 17.3 and 20.5 percent, respectively. Black and Hispanic patients were more likely to receive other ineffective services as well, including antipsychotics for those with dementia, imaging for an enlarged prostate and bone-density testing. U.S. News and World Report

U.S.: 'Supersizing urban America' - How U.S. policies encouraged fast food to spread

15 June - ... In the 1980s, residents of a working-class neighborhood in Boston who wanted to prevent a McDonald’s from opening — going so far as to protest at City Hall — were
ignored. Stories like this have been repeated in poor or working-class neighborhoods throughout the United States, [Chin] Jou writes. Jou's book chronicles how policies put in place by the federal government actually made it easier for minorities to open fast-food franchises in their neighborhoods than grocery stores. Today the landscape of urban America reflects this history. There's a fast-food restaurant within walking distance in many low-income neighborhoods, but nary a green leafy vegetable in sight. NPR

U.S.: Top Michigan health official, four others charged with manslaughter in Flint water crisis

14 June - The Michigan attorney general's office on Wednesday charged the director of the state's health department and four other public officials with involuntary manslaughter for their roles in the Flint water crisis, which has stretched into its fourth year. Nick Lyon, director of the Michigan Department of Health and Human Services, also faces a felony count of misconduct in office. While much of the attention in Flint has focused on the lead-tainted water that exposed thousands of young children to potential long-term health risks, the crisis also has been linked to an outbreak of Legionnaires' disease that contributed to at least a dozen deaths. The Washington Post

U.S.: U.S. asks drug maker Endo to withdraw opioid amid abuse crisis

8 June - As the United States battles a growing opioid abuse crisis, the Food and Drug Administration on Thursday asked Endo International Plc to withdraw from the market its long-lasting opioid painkiller, Opana ER, sending Endo's shares down more than 12 percent. The move marks the first time the agency has called for the removal of an opioid painkiller for public health reasons and comes after a panel of advisers concluded in March that the drug's benefits did not outweigh the risks. Reuters

U.S.: Why is U.S. maternal mortality rising?

8 June - In the first 15 years of this century, the rate of maternal mortality around the world decreased by more than a third. Shockingly, rates in the United States have been rising. In 2005, 23 US mothers per 100,000 live births died from complications related to pregnancy or childbirth. In 2015, that number rose to 25. In the United Kingdom, the number was less than 9. In Canada, it was less than 7. Very few wealthy countries saw increases over those years. Many poorer countries, including Iran and Romania, saw declines. But here in the United States, things got worse. These numbers have been confirmed by independent research. Last year, a study published in Obstetrics and Gynecology found that the maternal mortality rate in the United States had increased by more than 25% from 2000 to 2014. This trend differed by state, however. Although California had shown some declines, Texas had seen significant increases. News@JAMA
Asia: Turtles bred for food in Asia can transport cholera

14 June - Soft-shell turtles raised for food in Asia can infect people with cholera and spread the lethal bacteria from place to place, according to a new study. Large-scale turtle breeding has expanded rapidly in China, the authors noted. At the same time, turtles infected with the bacteria causing cholera — Vibrio cholerae — have been found in shipments throughout Asia, from Bangladesh to Japan. [T]he scientists found the bacteria growing all over the turtles’ shells, limbs and necks, and in the calipash, the gelatinous green layer beneath the shell that is considered a delicacy in Asia. The researchers also discovered the bacteria in the intestines of some turtles. The New York Times

Bangladesh: Rescuers dig for survivors in Bangladesh mudslide; 140 dead

14 June - Rescuers went from door to door searching for information on people who might be missing Wednesday after massive landslides crashed onto villages and killed at least 140 in southeastern Bangladesh, officials said. With some roads collapsed and others blocked by mud, soldiers were erecting a portable bridge to reach the worst-hit district of Rangamati, where government shelters housed about half of the 4,500 people whose homes were swamped by mud and debris unleashed by the landslides Tuesday. Officials reported 103 dead and at least 5,000 homes destroyed or damaged in Rangamati district, where mostly tribal villagers live in small communities near a lake surrounded by hills. Another 28 were killed in the coastal Chittagong district, six died in Bandarban, two in Cox's Bazar and one in Khagrachhari. The Washington Post

Indonesia: More than 80% of Indonesian kids had dengue by age 10

15 June - In Indonesia, more than 80% of urban children ages 10 and older were infected with dengue at least once, a representative sample of Indonesian children found. Adjusted national seroprevalence for children ages 10 to 14 was 83.1% (95% CI 77.1-89.0), which rose to 89.0% (95% CI 83.9-94.1) among children ages 15 to 18, reported Ari Prayitno, MD, of Universitas Indonesia in Jakarta, and colleagues. Not surprisingly, seroprevalence increased even starting at a very young age, rising from 33.8% (95% CI 26.4-41.2) among children ages 1 to 4, to 69.4% (95% CI 64.4-73.3) among children ages 5 to 9, the authors wrote in PLOS Neglected Tropical Diseases. MedPage Today
Brazil: Two more Brazilian states report yellow fever

12 June - According from the latest update from the European Centre for Disease Prevention and Control (ECDC), two new states in Brazil, Mato Grosso and Distrito Federal, have reported their first cases of yellow fever in 2017. There are now nine states with confirmed yellow fever cases in Brazil. The latest outbreak began in January of this year in Minas Gerais and Espirito Santo. From Jan 6 to May 31, the ECDC said there have been 1,311 cases of yellow fever (519 suspected and 792 confirmed), including 311 deaths (37 suspected and 274 confirmed). The case-fatality rate is 34.6% among confirmed cases. The ECDC said five other countries in South America have reported human cases of yellow fever this year: Peru (17), Colombia (6), Bolivia (1), Ecuador (1), and Suriname (1).

PAHO reports small increase in chikungunya cases

14 June - The Pan American Health Organization (PAHO) in its regular update on chikungunya on June 9, reported 165 more cases in the Americas, a decline from sizable numbers reported over the past few weeks. The new cases edge the yearly total to 87,637. ... Countries reporting small numbers of additional cases last week were El Salvador, Guatemala, Panama, Colombia, Ecuador, and Paraguay. No new deaths were added, keeping the total at 13. 

CIDRAP News Scan (second item)
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