14 April 2017

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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Training Aid: What is the ABHIDE

APHC’s Behavioral and Social Health Outcomes Practice uses the Army Behavioral Health Integrated Data Environment (ABHIDE) to develop routine monitoring of suicidal behavior and answer requests for information (RFIs) from Army leaders.

Access to the ABHIDE enables efficient, rapid, retrospective examinations of self-harm behaviors and the assessment of behavioral health-related co-morbidities such as Post Traumatic Stress Disorder (PTSD), depression, substance abuse, domestic violence, and violent crimes.

U.S. MILITARY

Civilians with severe burns treated at Texas military hospital

11 April - The burn unit at the U.S. Army Institute of Surgical Research in San Antonio, Texas, is hot. Sometimes, it gets up to 102 degrees in there, among the patients. People with severe burns can’t regulate their own body temperatures well, so the air has to keep them warm. ... At the height of the fighting in Iraq and Afghanistan, more than 1,000 wounded service members were flown to the hospital. The burn center’s mission is to treat members of the military for burns from fire, explosions, chemicals or radiation. The treatments can include skin grafts, amputations and inpatient rehabilitation to regain mobility or learn to live with a body that has changed dramatically. More than 15 years of war have led to major advances in burn care. In one case, a roadside bomb blast in Afghanistan burned more than 97 percent of one Marine’s body. He was flown to San Antonio, and survived. Thousands of U.S. troops are still in war zones, but with the end of major combat missions in Iraq and Afghanistan and fewer soldiers coming home badly burned, the military burn center is treating more civilians. NPR

Military lawyers sue Pentagon over carcinogens at Gitmo housing

11 April - Lawyers who work at a camp at Guantanamo Bay filed a lawsuit Tuesday alleging that the Pentagon failed to properly investigate health hazards at facilities there that contain carcinogens. The lawyers, who work at the facilities for several weeks in a year, say the US Navy failed to follow up on reports of high cancer cases among young and otherwise healthy people who work at Camp Justice, the complex where they work on detainees’ cases. ... The lawsuit alleged that the US Navy conducted a "deeply flawed investigation" of the environmental hazards at the camp. CNN

Post celebrates 31st Army Wellness Center grand opening

5 April - Soldiers and civilians celebrated the grand opening of Fort Campbell’s Army Wellness Center March 21 with a ceremony and guided tours of the new facility. The Army Wellness Center is part of a U.S. Army Medical Command initiative overseen by the Army Public Health Command. Active duty Soldiers and TRICARE recipients are eligible to use this facility. This is the 31st wellness center the Army has opened. These facilities are located on

March 2017 - Among active component service members in 2016, there were 525 incident diagnoses of rhabdomyolysis likely due to physical exertion and/or heat stress ("exertional rhabdomyolysis"). ... Annual rates of incident diagnoses of exertional rhabdomyolysis increased 46.2% between 2013 and 2016, with the greatest percentage change occurring between 2014 and 2015. In 2016, relative to their respective counterparts, the highest incidence rates of exertional rhabdomyolysis affected service members who were male; younger than 20 years of age; and black, non-Hispanic. During the surveillance period, annual incidence rates were highest among service members of the Marine Corps, intermediate among those in the Army, and lowest among those in the Air Force and Navy. Most cases of exertional rhabdomyolysis were diagnosed at installations that support basic combat/recruit training or major ground combat units of the Army or the Marine Corps.

Medical Surveillance Monthly Report

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GLOBAL

Is Komodo dragon blood the key to new antibiotics?

11 April - Komodo dragon blood contains an important compound which scientists think could offer a new treatment for infected wounds. The reptile’s saliva harbours many different types of bacteria, which somehow do not affect the dragon. Scientists at George Mason University in the US created a synthetic compound based on a molecule in dragon blood that had antimicrobial activity. They found it promoted the healing of infected wounds in mice. The study ... suggests that the protein could potentially be developed into an antibiotic in the future. BBC News

How behavioral economics can produce better health care

13 April - ... I’m a physician at the end of more than a decade of training. ... [T]he way I care for patients often has less to do with the medical science I’ve spent my career absorbing than with habits, environmental cues and other subtle nudges that I think little about. ... [This] can be explained by the field of behavioral economics, which holds that human decision-making departs frequently, significantly and predictably from what would be expected if we acted in purely “rational” ways. People don’t always make decisions — even hugely important ones about physical or financial well-being — based on careful
calculations of risks and benefits. Rather, our behavior is powerfully influenced by our emotions, identity and environment, as well as by how options are presented to us. The New York Times

**NIH researchers trace origin of blood-brain barrier ‘sentry cells’**

11 April - National Institutes of Health researchers studying zebrafish have determined that a population of cells that protect the brain against diseases and harmful substances are not immune cells, as had previously been thought, but instead likely arise from the lining of the circulatory system. This basic science finding may have implications for understanding age-related decline in brain functioning and how HIV infects brain cells. NIH

**Study finds rising carbapenem resistance in *Enterobacter cloacae***

10 April - New data from the Veteran's Health Administration (VHA) suggest rising carbapenem resistance in *Enterobacter cloacae*, researchers report in *Emerging Infectious Diseases*. ... [W]hile carbapenem resistance and nonsusceptibility rates among *K pneumoniae* isolates remained steady over the decade (over 1% resistance and 3%-4% nonsusceptibility), rates of resistance and nonsusceptibility increased in *E cloacae* complex, with more than 4% of isolates showing nonsusceptibility to carbapenems and 2.5% showing resistance in 2014-2015. These results, the authors write, indicate that a "second epidemic of carbapenem-resistant *E cloacae* complex appears to be unfolding.” CIDRAP News Scan (third item)

**Surprising and sobering: 7 facts about global health**

11 April - ... The Consortium of Universities for Global Health conference offered marathon sessions that covered everything from noncommunicable diseases and breastfeeding to climate science and injury prevention. ... Here are some of the facts and figures that made an impression on us.

1. Infectious diseases remain big killers. They are responsible for nearly 9 million deaths a year, about 16 percent of the world's roughly 56 million annual total deaths. ...
2. But there are other significant – and sometimes overlooked – causes of death. Injury and violence are among the less appreciated issues in global health — despite the fact that they account for more than 5 million deaths every year. ...
3. Heart disease is falling and rising. The heart disease death rate in the United States has fallen by 70 percent since the mid-20th century. ... Yet in developing countries, things are moving in the opposite direction. From 1990 to 2020, coronary heart disease is expected to increase by 120 percent for women and 137 percent for men. ...
4. Global health is largely a man’s world. Among World Health Organization member states, only 28 percent of top health officials are female.
5. Impacts of climate change are causing unlikely health problems: Rising sea temperatures have meant that the vibrio cholerae bacteria, which can cause cholera is able to exist in shellfish in Alaska and is causing wound infections among fishermen and others. ...

6. In some countries, rates of spousal violence are notably higher than the world average. The World Health Organization has reported that 35.6 percent of women have been subjected to physical or sexual violence. In Mozambique, the percentage is more than half of women. NPR

Toyota introduces robotic leg brace to help paralyzed people walk

12 April - The Welwalk WW-1000 system is made up of a motorized mechanical frame that fits on a person's leg from the knee down. The patients can practice walking wearing the robotic device on a special treadmill that can support their weight. Toyota Motor Corp. demonstrated the equipment for reporters at its Tokyo headquarters on Wednesday. One hundred such systems will be rented to medical facilities in Japan later this year, Toyota said. The service entails a one-time initial charge of $9,000 and a $3,200 monthly fee. The gadget is designed to be worn on one leg at a time for patients severely paralyzed on one side of the body due to a stroke or other ailments. Fox News

Trump pushes historic cuts in global health aid, stoking fears of new disease outbreaks and diminished U.S. clout

10 April - ... Since taking office, President Trump has proposed dramatic cuts to the U.S. Agency for International Development, which has historically spearheaded U.S. efforts to improve women's and children's health. The White House is urging reductions this year to major international health initiatives, including the President's Emergency Plan for AIDS Relief. ... The Trump administration has imposed tough new restrictions on U.S. support for aid organizations that provide family planning and other health services. And last week, the White House announced it is cutting all U.S. contributions to the United Nations Population Fund, or UNFPA, the lead international agency dedicated to promoting family planning and child and maternal health. ... The Trump administration has defended the rollback as necessary to address domestic needs. ... Conservatives also want to ensure the U.S. is not funding abortion services. ... But across the world, there are growing fears the U.S. will no longer be a reliable ally in tackling major global health challenges, including combating HIV/AIDS, malaria and future pandemics such as Ebola. Los Angeles Times
EBOLA VIRUS DISEASE

New compendium on Ebola addresses vaccines, outbreak control

10 April - The journal *Philosophical Transactions of the Royal Society B: Biological Sciences* published a 15-article theme issue on West Africa’s 2013-2016 Ebola outbreak today. In an introduction to the special issue, journal editors said this is the first compendium that addresses the largest Ebola epidemic in history, and contains the first review of Ebola vaccine candidates. The development of a vaccine is the most important outcome from the research conducted during the outbreak, the editors said, but the issue also contains studies on death rates, asymptomatic infections, transmission risk, and outbreak control. Despite having 3 years to conduct studies on the virus, the editors said there was a paucity of data collected on disease interventions and prophylactic vaccine candidate use.

*CIDRAP News Scan* (fifth item)

NIH study of Ebola patient traces disease progression and recovery

12 April - Analysis of daily gene activation in a patient with severe Ebola virus disease cared for at the National Institutes of Health in 2015 found changes in antiviral and immune response genes that pinpointed key transition points in the response to infection. The changes included a marked decline in antiviral responses that correlated with clearance of virus from white blood cells. The analysis also showed that the preponderance of host responses shifted rapidly from activation of genes involved in cell damage and inflammation toward those linked to promotion of cellular and organ repair. This pivot came before the first signs of clinical improvement in the patient, who was admitted to the NIH Clinical Center on day 7 of illness and remained at the hospital for 26 days. Researchers from the NIH’s National Institute of Allergy and Infectious Diseases (NIAID) led the study.

NIH

Report highlights Ebola research hurdles, recommends steps

12 April - An expert committee assembled by the US government to sort out thorny clinical research issues that arose during West Africa’s 2013-2016 Ebola outbreak published its report today, weighing in on the trials that took place and recommending steps for streamlining the process in future outbreak settings. ... The group concluded that [randomized controlled trials] are ethical and the fastest and most reliable way to weigh the benefits and risks of new products, and except in rare instances, all efforts should be made to implement them during epidemics. ... To improve the clinical trial response in the next epidemic, the advisors focused on three main areas that can be addressed both before and during the
next outbreak: strengthening health system capacity in vulnerable areas, engaging communities, and supporting international coordination and collaboration. ... One of their recommendations is an international stakeholder coalition to work between epidemics to advise and prioritize the pathogens to target for future research, develop clinical trial templates, and earmark research teams that could be deployed to help during outbreaks. CIDRAP

Sewer workers could be at risk with current Ebola guidelines

11 April - ... A study from Drexel University and the University of Pittsburgh suggest that guidelines issued by the CDC and WHO on the safe disposal of liquid waste from patients with the Ebola virus might not be effective enough to protect water treatment workers from being exposed to the virus. Researchers report that sewer workers downstream of hospitals and treatment centers could contract Ebola by inhalation, a risk that the CDC and WHO do not currently account for in their guidelines and response protocol. ... "The potential for Ebola virus transmission via liquid waste discharged into the wastewater environment is currently unknown. Possible worker inhalation exposure to Ebola virus-contaminated aerosols in the sewer continues to be a concern within the wastewater treatment community." Researchers found that a worker's risk of exposure to Ebola varies with the amount of time spent in the contaminated area and if they were wearing properly fitting protective gear. UPI

ZIKA VIRUS

Study: Zika behind Brazil's 15% drop in births

13 April - A recent correspondence in the New England Journal of Medicine noted that there were fewer microcephaly cases in Brazil in 2016 than in 2015. ... The authors of that letter said that another mosquito-borne disease, chikungunya, and not Zika, may have been responsible for Brazil's second wave of illness. And because prenatal infection with chikungunya doesn't cause birth defects, fewer babies were born with microcephaly. The new study ... suggests that the drop in microcephaly cases could be because women infected with Zika virus had earlier, unreported miscarriages. Many first-trimester miscarriages are not documented. ... The authors used data on live births from the city of Rio de Janeiro in 2016, and showed that there were 5,154 fewer births in the second half of 2016 (7,484 for the whole year) compared with previous years (a 14.85% drop in births). The authors said the decline shows a positive correlation with the incidence of Zika 37 to 42 weeks earlier, or the duration of a typical pregnancy. Including the incidence of chikungunya in the analysis did not affect the drop-off in pregnancies. CIDRAP
Tests reveal Zika circulating in Africa for more than 20 years

10 April - Zika virus has been silently circulating in West Africa for more than two decades, according to a study of 387 blood samples collected from 1992 to 2016, researchers from Harvard University, Nigeria, and Senegal reported in the *Journal of Infectious Diseases*. The virus was first identified in 1947 but wasn't linked with known epidemics until 2007 and hadn't been linked to neurologic disease before 2015. ... The researchers said the findings also show, in addition to the fact that Zika has been circulating in Africa for many years, that infections occur alongside other illnesses, highlighting the need for better tests to distinguish Zika from febrile infections. CIDRAP News Scan (first item)

Two live-attenuated Zika vaccines advance

11 April - In Zika vaccine developments, two different live-attenuated vaccine candidates progressed, with one research group reporting promising findings in mice and the other announcing that the first trial has been launched in humans. Also, a study on breastfeeding mother and babies didn't have enough information to say if the virus can be passed through that route. CIDRAP

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INFLUENZA

AFHSB: DoD Seasonal Influenza Surveillance Summary

For Week 13:
- NORTHCOM: Influenza activity dropped to minimal to low for most of the country.
- EUCOM: Influenza activity remained minimal across EUCOM, with the exception of Italy, which had low activity.
- PACOM: Influenza activity was minimal across PACOM except for the ROK which had low activity.
- CENTCOM and AFRICOM: Influenza activity was minimal for locations with available data in CENTCOM and AFRICOM except for Kuwait which had low activity.
- SOUTHCOM: Influenza activity was minimal in Honduras this week based on DMSS data. DHA - Armed Forces Health Surveillance Branch

APHC: U.S. Army Influenza Activity Report

For the week ending 1 April 2017 (Week 13)
The regions demonstrated an overall decline in influenza activity since a peak in week 6. This decrease in influenza activity has also been noticed in the civilian population.
- ILI Activity: Army ILI (influenza-like illness) outpatient visits in week 13 were 9%
Influenza cases: Three hospitalized influenza-associated cases were reported to APHC through DRSi in week 13 and all were non-AD beneficiaries.

Viral specimens: During week 13, 547 of 1939 (28%) lab specimens tested positive for respiratory pathogens. Of 226 influenza A-positive specimens, RHC-A reported 159 (70.4%), followed by RHC-C (47, 20.8%), and RHC-P (20, 8.8%). RHC-E and CENTCOM did not report any positive influenza A specimens. APHC

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

During week 13 (March 26-April 1, 2017), influenza activity decreased but remained elevated in the United States.

Viral Surveillance: The most frequently identified influenza virus type reported by public health laboratories during week 13 was influenza B. The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased slightly.

Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was below the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.

Influenza-associated Pediatric Deaths: Seven influenza-associated pediatric deaths were reported. CDC

China's H7N9 bird flu death toll at 47 in March: government data

12 April - China reported 47 human fatalities from H7N9 bird flu in March, the national health authority said on Wednesday, compared with 61 deaths in February. It also reported 96 cases of human infection from H7N9 bird flu for last month, according to a statement posted on the website of the National Health and Family Planning Commission. Reuters

ECDC: Flu News Europe

Week 13/2017 (27 March – 2 April 2017)

Influenza activity across the region continued to decrease with all countries reporting low intensity of influenza activity.

The number of influenza virus detections further decreased, and the proportion of influenza virus detections (16%) among sentinel surveillance specimens was lower compared to the previous week.

This was the third week during the season that the proportion of type B viruses exceeded the proportion of type A viruses in sentinel detections. However, the overall number of type B virus detections remained low.

European Center for Disease Prevention and Control/WHO
NHRC: Febrile Respiratory Illness Surveillance Update
For 2017 Week 13 (through 1 April 2017):

- Influenza: Seven cases of NHRC laboratory-confirmed influenza (six influenza A/H3 and one influenza B) among US military basic trainees. New cases presented for care 9-16 March. Three had been vaccinated more than 14 days prior to illness.
- FRI surveillance at all eight U.S. military basic training centers indicated FRI rates were elevated at Fort Benning and NTRC Great Lakes. Naval Health Research Center

Study: Bat species has avian and human flu receptors
10 April - Little brown bats, widely found in North America, have both avian and human sialic acid receptors and could be co-infected with avian and human influenza A viruses (IAVs). ... Scientists are looking into bats' role in influenza virus epidemiology after two novel influenza-like viruses were found in fruit bats in 2013. ... T]he new findings on receptors suggests that bats could play an important role in influenza A epidemiology and zoonotic emergence, the scientists wrote. They added, "The extensive diversity of bat species globally and the limited understanding of the role of bats in IAV biology raises an urgent need for comprehensive epidemiological surveillance if IAVs across different bat species."
CIDRAP Flu Scan (third item)

The big one is coming, and it's going to be a flu pandemic
10 April - ... [When a pandemic flu] comes, it will affect every human alive today. Pandemic flu is apolitical and does not discriminate between rich and poor. Geographical boundaries are meaningless, and it can circle the globe within hours. In terms of potential impact on mankind, the only thing that comes close is climate change. And, like climate change, pandemic flu is so vast, it can be challenging to wrap your head around it. ... For most people, however, the seasonal flu virus, which mutates just a little bit every year, is not particularly severe because our immune systems have already probably seen a similar flu virus and thus know how to fight it. It's called native immunity or protection, and almost all of us have some degree of it. ... Pandemic flu is a different animal: ... a pathogen that can spread easily from person to defenseless person, our immune systems never primed to launch any sort of defense. CNN

USAFSAM & DHA: DoD Global, Laboratory-Based, Influenza Surveillance Program
During 19 March - 1 April 2017 (Surveillance Weeks 12 & 13), a total of 415 specimens were collected and received from 49 locations. Results were finalized for 327 specimens from 43 locations. During Week 12, four influenza A(H1N1)pdm09, 54 influenza A(H3N2), and 55 influenza B viruses were identified. During Week 13, 35 influenza A(H3N2) and 40 influenza B viruses were identified. Approximately 44% of specimens tested positive for influenza during Week 12. Approximately 47% of specimens tested positive for influenza during Week 13. The influenza percent positive for the season is currently 37%. US Air Force School of Aerospace Medicine & Defense Health Agency
Why Chinese scientists are more worried than ever about bird flu

11 April - ... This lab at Hong Kong University is at the world’s forefront of our understanding of H7N9, a deadly strain of the bird flu that has killed more people this season ... than in any single season since when it was first discovered in humans four years ago. That worries lab director Guan Yi. But what disturbs him more is how fast this strain is evolving. ...

Guan and his team discovered [in December that] the H7N9 strain had mutated into a new form that kills chickens even more quickly. ... What worries Guan more, though, is that H7N9 has proved an ability to mutate quickly. There's no evidence that the virus has become more deadly in people. But already, in the rare cases when humans catch it from birds, more than a third of them die. Currently, the virus hasn't been known to spread easily among humans, but Guan fears a future mutation could. "Based on my 20 years of studying H7N9 ... I'm pessimistic," says Guan, shaking his head. "I think this virus poses the greatest threat to humanity than any other in the past 100 years." NPR

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VETERINARY/FOOD SAFETY

Fresh Express recalls batch after dead bat found in prepackaged salad

9 April - ... On Saturday, the company Fresh Express announced a precautionary recall of some of its prepackaged salad mixes, after two people in Florida say they found a dead bat in their leafy greens. According to the Centers for Disease Control and Prevention, the two had eaten some of the product before finding the decomposed organism in a 5-ounce clear container of the Organic Marketside Spring Mix. ... The mix in question was distributed exclusively to Walmart stores located in the Southeastern region of the U.S. Walmart has since pulled the product from its shelves. ... Florida health officials, the FDA and the CDC have launched an investigation into the matter. NPR

Rat lungworm cases spike on two Islands, Maui and Big Island

13 April - Hawaii is experiencing an uptick in rat lungworm disease. Six confirmed cases on Maui and another three confirmed cases on the Big Island were reported over the last three months with no deaths. That's about as many cases as are ever experienced over the course of a year. ... Typically, rat lungworm infections come from eating raw or undercooked snails
and slugs. ... If lettuce or other raw produce is not thoroughly washed on Hawaii, there's the risk a snail or a slug carrying the parasites might slip through. ... Snugs and snails eat rat feces and serve as intermediate hosts for the parasites. Food Safety News

Sweden continues to report high levels of *Campylobacter*

8 April - Since late summer 2016, Sweden has had a sharp increase in the number of cases of *campylobacter*, where the primary cause has been the Swedish produced fresh chicken. The number of people getting sick from *campylobacter* remains at a high level in Sweden, according to Folkhalsomyndigheten (computer translated). The measures the chicken industry has to make a significant impact to date. In February, a major chicken producer announced an issue in a washing plant of a slaughterhouse, which has been rectified. The Public Health Agency’s statistics on the number of people who become ill after being infected in Sweden shows at levels remained above normal, suggesting that it was not just washing plant that caused the outbreak. Outbreak News Today

**WELLNESS**

Addicts who can't get opioids are overdosing on a diarrhea drug

7 April - Opioid painkillers have an inconvenient, lesser-known side effect: terrible constipation. Perhaps then it’s no surprise that people addicted to opioids have considered the converse. If a drug that gets you high causes constipation, could a drug that causes constipation get you high? Yes, and that drug is another opioid called loperamide, better known by its brand name Imodium as an over-the-counter treatment for diarrhea. At extremely high doses—dozens or even hundreds of pills a day—it can produce a high or ease withdrawal symptoms. And in the middle of a national opioid epidemic, overdoses of loperamide are rising, too. ... Nationally, the number of calls to poison centers for intentional loperamide exposure more than doubled between 2010 and 2015. And the FDA has issued an alert for doctors to look out for loperamide misuse. The Atlantic

An hour of running may add 7 hours to your life

12 April - Running may be the single most effective exercise to increase life expectancy, according to a new review and analysis of past research about exercise and premature death. The new study found that, compared to nonrunners, runners tended to live about three additional years, even if they run slowly or sporadically and smoke, drink or are overweight. No other form of exercise that researchers looked at showed comparable impacts on life span. The New York Times
As people age, the factors that drive depression may shift

13 April - To see which depression risk factors affect people at various stages of life, and how much of an effect each factor has, the study team analyzed data on more than 2,000 adults participating in two long-term studies of depression and anxiety. Subjects in one study were aged 18 to 65 when they began participating, while participants in the other study were aged 60 to 93 when it started. ... Most of the risk factors did increase people’s likelihood of being depressed at any age, including low education, recent negative life events, personality traits, reduced social functioning, an unhealthy lifestyle and poor health. However, five of the risk factors were more strongly related to depression in certain age groups. For people aged 18 to 39, health factors like overweight or obesity, pain, childhood abuse and chronic disease were strongly associated with depression. For those over 60, low income was a greater risk for depression than in other age groups. Reuters

Diabetes is even deadlier than we thought, study suggests

7 April - Nearly four times as many Americans may die of diabetes as indicated on death certificates, a rate that would bump the disease up from the seventh-leading cause of death to No. 3, according to estimates in a recent study. Researchers and advocates say that more-precise figures are important as they strengthen the argument that more should be done to prevent and treat diabetes, which affects the way sugar is metabolized in the body. "We argue diabetes is responsible for 12 percent of deaths in the U.S., rather than 3.3 percent that death certificates indicate," lead study author Andrew Stokes. ... Using findings from two large national surveys, the study looked mainly at A1C levels (average blood sugar over two to three months) and patient-reported diabetes. In the latest study, researchers compared death rates of diabetics who had participated in these surveys to information on their death certificates. The authors also found that diabetics had a 90 percent higher mortality rate over a five-year period than nondiabetics. This held true when controlling for age, smoking, race and other factors. The Washington Post

Good genes are nice, but joy is better

11 April - When scientists began tracking the health of 268 Harvard sophomores in 1938 during the Great Depression, they hoped the longitudinal study would reveal clues to leading healthy and happy lives. They got more than they wanted. After following the surviving Crimson men for nearly 80 years as part of the Harvard Study of Adult Development, one of the world’s longest studies of adult life, researchers have collected a cornucopia of data on their physical and mental health. ... Close relationships, more than money or fame, are what keep people happy throughout their lives, the study revealed. Those ties protect people from life’s discontents, help to delay mental and physical decline, and are better predictors of long and happy lives than social class, IQ, or even genes. That finding proved true across the board among both the Harvard men and the inner-city participants. Harvard Gazette
Obese teens' odds of high blood pressure vary by race

10 April - Obesity is a strong predictor of high blood pressure early in life, but a U.S study suggests the connection may be stronger for Hispanic and white teens than for adolescents in other racial and ethnic groups. Researchers examined weight, blood pressure and racial and ethnic data from more than 21,000 youth. ... About one-third were overweight or obese, and 2.7 percent had hypertension, or high blood pressure. Overall, 6.6 percent of obese teens had high blood pressure, as did 2.6 percent of overweight youth and 1.6 percent of normal weight adolescents, the study found. Obesity was much more likely to increase the risk of high blood pressure in Hispanic and white participants. Reuters

Rates of new diagnosed cases of type 1 and type 2 diabetes on the rise among children, teens

13 April - Rates of new diagnosed cases of type 1 and type 2 diabetes are increasing among youth in the United States, according to a report ... published today in the New England Journal of Medicine. ... From 2002 to 2012, incidence, or the rate of new diagnosed cases of type 1 diabetes in youth increased by about 1.8 percent each year. During the same period, the rate of new diagnosed cases of type 2 diabetes increased even more quickly, at 4.8 percent. ... Across all racial/ethnic groups, the rate of new diagnosed cases of type 1 diabetes increased more annually from 2003-2012 in males (2.2 percent) than in females (1.4 percent) ages 0-19. Among youth ages 0-19, the rate of new diagnosed cases of type 1 diabetes increased most sharply in Hispanic youth, a 4.2 percent annual increase. NIH

Running marathons may hurt your kidneys

8 April - ... The study involved 22 men and women who competed in a Connecticut marathon. On average, they were 44 years old, had run five previous marathons and were described as fairly healthy, with no evidence of kidney disorders. They all completed the 26.2-mile course, finishing in just over four hours, on average. Blood and urine samples were collected 24 hours before the marathon, within 30 minutes of finishing the race and again 24 hours later. Analysis of the samples showed that, across the board, levels of creatinine (a waste product in blood that is removed by the kidneys) and albumin (a protein normally found in small amounts in urine) had increased twofold to threefold after the marathon, indicating that the kidneys were not working as they should. Cell analysis suggested structural damage to the kidneys in 73 percent of the participants. In 82 percent of the runners, the findings were indicative of at least Stage 1 kidney damage (acute kidney injury). The Washington Post

Trans fat bans tied to fewer heart attacks and strokes

12 April - Laws that restrict adding trans fats to foods have had immediate beneficial effects on heart health, new research has found. The Food and Drug Administration plans to restrict the use of trans fats in foods nationwide in 2018, but between 2007 and 2011, some counties in New York State, but not others, banned trans fatty acids in restaurants, bakeries,
soup kitchens, park concessions and other public places where food is served. In a natural experiment to test the effect of the ban, researchers compared nine counties with trans fat restrictions to eight that had none. Cardiovascular disease has been declining nationwide in recent years, but the decline was even steeper in counties where trans fats were banned. Three years after restrictions were imposed, there was an additional 6.2 percent decline in hospital admissions for heart attacks and strokes in counties that banned trans fats compared with those that did not. The New York Times

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USAFRICOM

Africa: Study - El Nino shifts cholera threat to East Africa

12 April - East Africa's cholera cases increase by 50,000 during El Nino years, according to a mapping study led by Johns Hopkins University Bloomberg School of Public Health researchers. Since weather forecasters generally know 6 to 12 months before an El Nino pattern occurs, the findings could help public health officials plan ahead to reduce the impact of the outbreaks, the authors said. ... Though the total number of cholera cases in Africa didn't vary based on El Nino weather patterns, the geographic impact shifted to East Africa, which saw a rainfall increase that came with a threefold increase in cholera. Areas that see massive rainfall can experience sewer system problems and contaminated drinking water, and dry conditions can threaten clean water supplies. ... The investigators said 2015-16 was an El Nino year, which was followed by a large outbreak in Tanzania.
CIDRAP News Scan (fifth item)

Ethiopia declares another diarrhea outbreak

7 April - Ethiopia has declared an outbreak of acute watery diarrhea, also known as AWD, in the country's Somali region, where people are already struggling to cope with a persistent drought. Dr. Akpaka Kalu, the World Health Organization representative to Ethiopia, told VOA on Friday that 16,000 cases of AWD had been recorded in the region since January. The total number of deaths is uncertain. VOA

Somalia: Cholera spreading in Somalia, 50,000 cases foreseen

13 April - More than 25,000 people in famine-threatened Somalia have been struck by cholera or acute watery diarrhoea and the deadly epidemic should double by this summer, the World Health Organisation (WHO) said on Thursday. The United Nations is already racing to avoid a repeat of famine in the drought-hit Horn of African nation where more
than 250,000 people died of starvation in 2011. ... The case fatality rate for the disease, spread by contaminated food or water, is already 2.1 percent in Somalia, twice the emergency threshold, he said. At least 524 deaths have been recorded. Reuters

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**USCENTCOM**

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**Afghanistan: Hundreds diagnosed with tuberculosis in Ghazni**

11 April - Local health officials on Tuesday said 1,600 people, half of them women, have been diagnosed with tuberculosis (TB) in southern Ghazni province. Provincial public health director Dr. Zahir Shah Nikmal told Pajhwok Afghan News 1,564 people, 65 percent of them, women in Ghazni suffered from TB. ... [A resident of Aab Band district] said people could not transfer their patients to Ghazni City or other areas for treatment due to clashes between militants and the Afghan forces on roads. ... Two days back, health officials in Nangarhar said nearly 4,500 people were suffering from TB in the province. Menafn News

**Iraq: Iraqis haunted by war overwhelm mental health facilities**

10 April - ... Mental health professionals say many displaced Mosul residents experience nightmares, anxiety, depression, aggression and irritability, all signs of PTSD, a condition that may develop as a result of exposure to serious violence. “The rate of the population in Mosul that has been affected during this war, it must be double than in other wars,” said Dr. Karzan Jalal Shah, director of the Irbil Psychiatric Hospital. ... The hospital receives about five patients from Mosul every day, and there is little it can do beyond referring them to private organizations. The hospital has only seven psychiatrists, who receive only a quarter of their salary, and little medication because of the severe financial crisis affecting the Kurdish regional government. ... Aid organizations provide some care in the camps. Doctors Without Borders has a psychiatrist in Khazer camp four times a week and a psychosocial counselor every day, while the International Organization for Migration runs a reintegration and socialization program for children. ABC News

**Saudi Arabia: Two new cases of MERS reported in Saudi Arabia**

11 April - The Saudi Arabian Ministry of Health (MOH) reported two new cases of MERS-CoV today, the first since Apr 6. A 72-year-old Saudi man from Riyadh is in stable condition after presenting with symptoms of MERS-CoV (Middle East respiratory syndrome coronavirus). The source of his infection is listed as primary, meaning it’s unlike he
contracted the virus from anyone else. The second patient is a 60-year-old Saudi man from Al Huwayah. He is in critical condition after presenting with symptoms of the coronavirus. The MOH said the man had direct contact with camels. The new case brings Saudi Arabia's total to 1,589 MERS-CoV cases, 659 of them fatal, since the virus was first detected in humans in 2012. Seven people are still being treated for their infections, the MOH said.

**CIDRAP News Scan (first item)**

**United Arab Emirates: First MERS case reported in UAE in 10 months**

12 April - The United Arab Emirates (UAE) yesterday reported its first case of MERS-CoV since June of 2016. The National, a UAE newspaper, reported that the patient is hospitalized and being treated for MERS-CoV (Middle East respiratory syndrome coronavirus). So far, no other details about the patient have been released. ... Since 2012, when the virus was first detected in humans, 1,956 cases, at least 748 of them fatal, have been reported, according to the European Centre for Disease Prevention and Control.

**CIDRAP News Scan (second item)**

**United Arab Emirates: UAE public health warning after spike in teens inhaling painkiller spray**

8 April - Public health authorities have issued an alert over the recreational use of a pain relief spray after a spike in teenagers abusing the substance. The ministry of health said children as young as 12 have been found to use ethyl chloride spray, a legal painkiller often used to relieve sore muscles. Users spray the gas onto a cloth then inhale the fumes. Last week, two Emirati teenagers in Ajman sustained burns after the compressed gas they had been inhaling exploded in their vehicle, blowing out the windows in a dramatic video captured on CCTV. The teenagers, aged 17 and 18, were taken to hospital after inhaling the gas in Al Jurf. Amin Hussain Al Amiri, assistant undersecretary at the UAE Ministry of Health and Prevention, said: "Using this type of gas is not a criminal offence. However, it is gaining popularity among the youth due to its low cost and availability in different stores, leading to many cases of addiction between people aged between 12 and 16." The National

**USEUCOM**

**Europe: As measles surges in Europe, officials brace for a rough year**

7 April - ... [Measles] is hitting Europe hard this year. Romania is fighting a large outbreak with more than 3,400 cases, including 17 deaths. And Italy is seeing a big surge in cases,
with at least 400 already in 2017, the World Health Organization reported last week. The outbreak is only going to get worse. "Preliminary information for February indicates that the number of new infections is sharply rising," WHO wrote. And the problem isn't just in Europe. Guinea is battling a widespread outbreak, with nearly 3,500 confirmed cases, Doctors Without Borders reports. Nigeria is having an emergency campaign to vaccinate 4 million kids after an outbreak flared up in a region crippled by violence. And Mongolia — which was declared measles-free in 2014 — is still reeling from a massive outbreak nearly 20,000 cases. ... There's one big reason why: Vaccine rates around the world have stalled. NPR

Turkey/Syria: Autopsies show sarin gas used against Syrian town

11 April - Turkey's health minister said Tuesday that test results confirm sarin gas was used in an attack on a northern Syrian town earlier this month and the Russian military said the Syrian government is willing to let international experts examine its military base for signs of chemical weapons. Col. Gen. Sergei Rudskoy of the Russian General Staff said in televised remarks that Russia will provide security for international inspectors seeking to examine Syrian bases, and that Damascus has agreed to allow the inspections. ... The April 4 chemical weapons attack on the rebel-held town in Idlib province left nearly 90 people dead. Military Times

USNORTHCOM

U.S.: Asbestos deaths remain a public health concern, CDC finds

11 April - People are still dying of cancer linked to asbestos, the U.S. Centers for Disease Control says, despite decades of regulations meant to limit dangerous exposure. ... [A] recent CDC analysis found that thousands of people are still dying each year from a type of cancer called malignant mesothelioma that is associated with inhaling asbestos fibers, even briefly or in small amounts. ... The greatest increase is among people over 85 years old, who were likely exposed to asbestos many years ago. It can take anywhere from two to seven decades for mesothelioma to develop after a person inhales asbestos fibers. And early deaths among people 35 to 65 are down overall. But, investigators say, the fact that people younger than 55 are still dying of a disease linked to asbestos means that workers are still being exposed to dangerous levels of asbestos despite federal regulations. NPR
U.S.: California women have banned flame retardants in their bloodstreams

7 April - Two toxic chemicals banned in the U.S. in 2005 are still finding their way into the bloodstreams of California women, suggesting that sources of exposure persist in homes and in the environment, researchers say. The flame retardant chemicals called Polybrominated Diphenyl Ethers, or PBDEs, were used to treat polyurethane foam, hard plastics, textiles, glues and wire insulation, among other products, until 2006 in the U.S. ...

"We don't fully understand the health consequences of exposures to these chemicals in humans. Laboratory studies in animals, however, have shown that PBDEs can interfere with normal development of the neurologic system, disrupt the proper functioning of the immune and hormonal systems, and may promote cancer" lead author Susan Hurley told Reuters Health. Reuters

U.S.: Chagas study - confirms it is a major public health challenge for the U.S.

13 April - A study of almost 5,000 Latin American-born residents of Los Angeles County found that 1.24% tested positive for Chagas disease, a parasitic infection that can cause life-threatening heart damage if not treated early. Chagas disease is one of the leading causes of heart failure in Latin America. ... Roughly 30% of those infected will develop serious cardiac, digestive, or neurological disorders. The disease is not generally transmitted from person-to-person. "Less than 1% with the infection are receiving treatment for Chagas disease," said Dr Sheba Meymandi ... the study's main author. "Without treatment many Chagas patients are at risk of a "silent death" due to heart failure. Outbreak News Today

U.S.: Ongoing drop in federal public health funds, plateau for states

13 April - In its annual snapshot of funding for public health, Trust for America’s Health (TFAH) said the core budget of the US Centers for Disease Control and Prevention (CDC) has declined more than $580 million since 2010, while state support for public health has remained relatively level over the same period. The nonprofit health advocacy group, based in Washington, DC, said federal funding is poised to take another hit, with President Donald Trump’s proposed budget that cuts the US Department of Health and Human Services (HHS) by 18%. According to TFAH, budget sequestration slated for the 2018 fiscal year would put nondefense spending, including for the CDC, below 2010 spending levels, adjusted for inflation. CIDRAP

U.S.: Stroke hospitalizations rising among younger U.S. adults

10 April - A growing number of younger U.S. adults are being hospitalized for strokes, and a new study suggests that’s at least in part because more of them have risk factors like high
blood pressure, obesity and diabetes. The most common type of stroke, known as an ischemic stroke, occurs when a clot blocks an artery carrying blood to the brain. When researchers examined hospital billing data on acute ischemic stroke hospitalizations for adults under age 65 from 2003 to 2012, they found the biggest surge in stroke rates for adults aged 35 to 44. During the study period, stroke hospitalizations in that age group rose 42 percent for men and 30 percent for women, researchers report in *JAMA Neurology*. The proportion of people with at least three of the five major risk factors for stroke - high blood pressure, diabetes, high cholesterol, obesity and smoking - rose in all age groups but soared the most, almost doubling, in adults aged 35 to 44. *Reuters*

**U.S.: Study finds wide variation in US estimates of MRSA incidence**

7 April - A review of epidemiologic studies on the incidence of methicillin-resistant *Staphylococcus aureus* (MRSA) infections in the United States has found a wide variation in estimates and no firm evidence of significant decline, researchers report today. ... The researchers reviewed five reports on MRSA incidence with data acquisition periods that ended on or before 2011. The reports ... measured different types of MRSA infections, different patient populations (including patients in military facilities, patients in acute care settings, pediatric patients, and patients in the general population). ... The authors say the lack of uniformity of MRSA reporting is hindering the United States' ability to formulate control strategies and shows the need for a comprehensive tracking system for MRSA and other multidrug-resistant organisms. *CIDRAP Stewardship/Resistance Scan* (second item)

**U.S.: Where climate change is threatening the health of Americans**

13 April - As President Donald Trump looks to curb the government's enforcement of climate regulations, experts are concerned about how the action might impact public health. "The current federal political climate in the United States bodes ill for the future of the world’s climate and by extension for the health of people around the world, Americans included," said Dr. Mona Sarfaty, director of the program on climate and health at George Mason University. ... Sarfaty helped prepare a report, released last month by the Medical Society Consortium on Climate and Health, that mapped how climate change threatens the health of people across the United States and how those threats vary by region. Extreme temperatures and weather events, poor outdoor air quality, contaminated food and water, mosquito- and tick-borne infections, wildfires and stresses on mental health are the climate-related health risks identified in the report by practicing physicians. *CNN*

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Cambodia: Lack of iodized salt causes ‘serious public health problem’ in Cambodia

8 April - When Arnaud Laillou, a nutrition specialist with UNICEF, led a salt iodization study in 2014, he wanted to be sure that salt producers were not adding too much iodine. Just four years earlier, UNICEF had stopped providing iodine to salt producers at the end of a decade-long, largely successful government-run iodization program. Laillou was stunned to find that 90 percent of coarse salt and 40-50 percent of fine salt was not iodized. And all of it was labeled as iodized. [I]odine deficiency Cambodia had become “a serious public health problem” just years after the issue had largely been dealt with, and warned that poorer families and rural families were worst affected. VOA

China to relocate millions of people away from disaster zones

11 April - ... Look to China over the next decade as it plans to resettle 250 million people in a bid to fight poverty, prioritizing the first relocations for those living in areas prone to natural disasters. The government says it has already assisted in resettling 1.2 million “ecological migrants” and aims to move 1.4 million more people “away from geological threats” by 2020, according to its five-year social and economic development plan. The mass relocations form part of China’s evolving strategy on disaster preparedness and poverty alleviation, which involves shifting people away from remote areas and building up city centres with the aim of raising overall living standards. The government hopes to eliminate poverty by 2020 and resettle 250 million people into urban centres by 2026. IRIN

Indonesia: Indonesia permits rare Papua access to UN health rights expert

7 April - The United Nations special rapporteur on the right to health did something remarkable last week: he traveled to the Indonesian provinces of Papua and West Papua. ... Given the government’s long history of blocking scrutiny of conditions in Papua by foreign media and international observers, including UN experts, this development may indicate a change in policy. ... [Danius] Puras’ observations about health conditions in Papua are a searing indictment of the government’s failings on public health. He singled out the fact that ethnic Papuans “are two times more likely to have HIV/AIDS than the rest of the population and new infections are on the rise.” ... Other statistics are equally alarming: Papua has the lowest life expectancy in Indonesia and the country’s highest infant, child, and maternal mortality rates. Human Rights Watch

Vanuatu: Dengue fever outbreak

13 April - ... As of 19 March 2017, up to 2,043 suspected cases of dengue fever have been
reported nationwide to the MoH during the outbreak period. The current dengue epidemic of serotype 2 affects all age groups and therefore is a national threat that warrants national responsibility, public, private and communal response. Two imported cases of Dengue-1 with travel history to Vanuatu were reported by New Caledonia Department of Health and Social Affairs for the period: 01/01/2017 to 03/02/2017. Of the 2,043 suspected cases, 351 have been confirmed positive. Forty-four per cent (44%) of positive cases are found among children aged between five and 14, 29.1 per cent are found among those between the ages of 15 and 24, and 17.4 per cent are among those between 25 and 34. Ninety-one per cent (91%) of cases have been found in the population above four (4) years of age. ReliefWeb

USOUTHCOM

Brazil: More yellow fever in Espírito Santo, Brazil

11 April - The Pan American Health Organization (PAHO) released its latest epidemiologic update on the current yellow fever outbreak in Brazil, noting that while cases have decreased in Minas Gerais state, there have been increasing reports of the mosquito-borne disease in Espírito Santo. ... The state of Rio de Janeiro also reported an uptick of cases between Mar 15 and 25. ... Since the beginning of the outbreak in December of 2016 through Apr 6, there were 2,210 cases of yellow fever reported, including 604 confirmed. Among confirmed cases, the case-fatality rate is 33%. ... As of Apr 6, Brazil said 2,871 nonhuman primates (NHP) epizootics were reported, of which 474 were confirmed yellow fever infections, 997 remain under investigation, and 77 were discarded. CIDRAP

PAHO reports 7,000-case chikungunya jump fueled by infections in Brazil

10 April - The Pan American Health Organization (PAHO) reported 7,342 new chikungunya cases and 5 new related deaths late last week, driven almost entirely by new infections in Brazil. In the previous weeks, the Americas reported 207 and 526 new cases, but 4 weeks ago countries logged 7,091 new cases—again attributed in large part to infections in Brazil. The case count for 2017 has now reached 20,319, PAHO said in its Apr 7 update. Brazil, reporting on 3 weeks’ of catch-up data, noted 7,231 new cases and 17,525 for the year, or 86% of the total. Peru had the second-largest increase, with 61 new infections and only 411 total cases for 2017. The five new chikungunya-related deaths are all in Brazil, bringing the country's—and region's—to total six fatalities. Many nations, however, have not reported on their chikungunya situation for weeks. Even Brazil is not up to date, as its data are current only through week 10 of the year, even though the PAHO report covers cases through week 14. CIDRAP News Scan (second item)
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