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Army Public Health Weekly Update

Army Public Health Center

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- Indonesia: Indonesia races to contain diphtheria outbreak ahead of 2018 Asian Games
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- Panama: U.S. officials stop semi-submersible vessel carrying cocaine off Panama coast
Combating Antimicrobial Resistance: A One Health Approach to a Global Threat: Proceedings of a Workshop

Major drivers of antimicrobial resistance in humans have been accelerated by inappropriate antimicrobial prescribing in health care practices; the inappropriate use of antimicrobials in livestock; and the promulgation of antibiotic resistance genes in the environment.

A 2-day public workshop explored issues of antimicrobial resistance through the lens of One Health to counter infectious diseases and related issues that threaten human, animal, and environmental health.


November 2017 - This report summarizes the annual prevalence of permanent sterilization, as well as use of long- and short-acting reversible contraceptives (LARCs and SARCs, respectively), contraceptive counseling services, and use of emergency contraception from 2012 through 2016 among active component U.S. service women. Overall, 262,907 (76.2%) women of childbearing potential used either a LARC or a SARC at some time during the surveillance period. From 2012 through 2016, permanent sterilization decreased from 4.2% to 3.6%; LARC use increased from 17.2% to 21.7%; SARC use decreased from 38.5% to 30.4%; and emergency contraception use increased from 0.4% to 1.9%. Annual prevalence of contraceptive counseling only was relatively stable around 4.0%. Medical Surveillance Monthly Report

Court refuses Trump request to delay Jan. 1 transgender enlistments

11 December - federal court has knocked down the Trump administration’s latest request to delay any transgender recruits from enlisting in the military as of Jan. 1, 2018. In the Monday ruling, U.S. District Court Judge Colleen Kollar-Kotelly said the Justice Department’s argument that the Pentagon did not have sufficient time to prepare to receive transgender recruits lacked merit, citing the amount of time that had passed from the initial ruling in October and their last-minute appeal to prevent the enlistments from occurring. Military Times

Commentary: Vaccines needed in the fight against AMR

12 December - Vaccines could and should play a key role in stemming the antimicrobial resistance (AMR) crisis, according to a commentary today in Nature. The commentary ... calls for a global strategic effort to prioritize development of a portfolio of vaccines to target AMR. Their reasoning is based on several factors. For one, they argue, vaccines almost never prompt bacteria to develop resistance. In addition, scientists have had much more success over the last 30 years developing new vaccines than they’ve had discovering new antibiotics. Since the 1980s, 22 new vaccines have been deployed in the clinic, while no new truly new class of antibiotics has been discovered or engineered. CIDRAP Stewardship/Resistance Scan (second item)
Did Sanofi, WHO ignore warning signals on dengue vaccine?

12 December - When French drugmaker Sanofi published the results of clinical trials of children given its dengue vaccine two years ago, the overall findings were that it protected against the world’s biggest and fastest growing mosquito-borne disease. But the trial also showed that in the third year after receiving the Dengvaxia inoculation, younger children were more likely to end up in hospital with a severe case of dengue than those who didn’t get the vaccine. The study’s authors cited two main possibilities: the children had immature immune systems that made the vaccine less protective, or the vaccine itself made them more susceptible to severe disease if they had never had dengue and later became infected. More than two years later, it turns out the latter was the primary factor - a revelation at the end of last month that has triggered alarm among hundreds of thousands of anxious parents in the Philippines, where the vaccine has been given to over 830,000 children. Reuters

Diphtheria: What exactly is it … and why is it back?

8 December - … [Diphtheria is] a highly infectious respiratory disease that colonizes a person’s nose and throat, creating a thick layer of dead cells that can block the airway. It has always had a reputation for sickening children. With the introduction of a highly effective vaccine in the 1920s and early ’30s, diphtheria faded away in much of the world. Today it’s largely considered a disease of the past. But now it’s back in the headlines, spreading quickly in places like Bangladesh and Yemen. The World Health Organization says it is sending a shipment of antitoxins to Bangladesh this weekend, after six deaths in a Rohingya refugee settlement. The organization did the same last week for Yemen, where at least 30 have died of the bacterial infection, many of them children. … Infections can pop up under the wrong conditions, which include vaccination coverage below about 80 percent, malnutrition and lots of people living in close contact, and poor access to medical care, all of which are currently present in outbreak areas in Bangladesh and Yemen. NPR

Firefighters may face increased skin cancer risk

13 December - Firefighters may have a higher risk of skin cancer than the general public, a new study finds. The study analyzed information from about 2,400 firefighters in South Florida. Participants answered questions about whether they had past skin-cancer diagnoses, as well as what kind of sun protection (including sunscreen) they used and whether they had been screened for skin cancer or had other skin cancer risk factors (such as sunburns). Overall, 109 firefighters (4.5 percent) reported having a diagnosis of skin cancer at some point, including 17, or 0.7 percent, who were diagnosed with melanoma. That’s higher than the rate of melanoma among Florida adults in the general population, which is only 0.01 percent, the researchers said. … What’s more, firefighters tended to be diagnosed with melanoma at younger ages than adults in the general population: The median age of melanoma diagnosis was 42 years old among firefighters, compared with 64 years old in the general U.S.
Fracking sites may raise the risk of underweight babies, new study says

13 December - Living within half a mile of a hydraulic fracturing site carries a serious risk for pregnant women, a new study has found. The drilling technique, also known as fracking, injects high-pressure water laced with chemicals into underground rock to release natural gas. Women who lived within that distance to fracking operations in Pennsylvania were 25 percent more likely to give birth to low-weight infants than were mothers who lived more than two miles beyond the sites. The five-year study of more than 1.1 million births in the state between 2004 and 2013 ... also found lower birth weights, although not as low, in infants whose mothers lived between half a mile and two miles from a fracking site. Beyond two miles, there was no indication of any health effect to newborns. The Washington Post

Half of world lacks access to basic health care: Report

14 December - At least half of the world's population is too poor to access essential health care services, according to a new report by the World Bank and the World Health Organization. The report also found that health care expenses are pushing hundreds of millions of people into poverty. Currently, nearly a billion people spend 10 percent of their household income or more on health expenses for themselves, a sick child or another family member. For almost 100 million people, these expenses are high enough to push them into extreme poverty, forcing them to survive on just $1.90 or less a day. The report argues that universal health care would better solve the issue across a planet on which some 3.8 billion people lack access to basic health care. Newsweek

Harnessing math and modeling for early vaccine scare identification

11 December - Analyzing tweets and Google searches can help predict vaccine scares, giving public health officials a potential new tool to intervene and help prevent disease outbreaks, researchers from Canada's University of Waterloo reported today in Proceedings of the National Academy of Sciences (PNAS). The team collected geocoded tweets that mentioned measles, mumps, and rubella (MMR) vaccine, then used artificial intelligence computer programs to classify message sentiments. Researchers also collected data on measles-related Google searches, using mathematical theory to look for early warning signals. They looked for a tipping point, which reflected when vaccine coverage declines due to spreading fears, which could contribute to disease outbreaks with waning population immunity. Similar mathematical theories have been used to predict tipping points with other phenomena, such as changing climate patterns. CIDRAP News Scan (fourth item)
Lyme disease: *Borrelia burgdorferi* survive 28-day course of antibiotics months after infection, according to study

13 December - Bay Area Lyme Foundation, a leading sponsor of Lyme disease research in the U.S., today announced results ... that seem to support claims of lingering symptoms reported by many patients who have already received antibiotic treatment for the disease. Based on a single, extensive study of Lyme disease ... the study employed multiple methods to evaluate the presence of *Borrelia burgdorferi* spirochetes. ... The data show that living *B. burgdorferi* spirochetes were found in ticks that fed upon the primates and in multiple organs after treatment with 28 days of oral doxycycline. ... "It is apparent from these data that *B. burgdorferi* bacteria, which have had time to adapt to their host, have the ability to escape immune recognition, tolerate the antibiotic doxycycline and invade vital organs such as the brain and heart," said lead author Monica Embers, PhD. Outbreak News Today

SIGA requests priority FDA review of its oral smallpox drug

12 December - SIGA Technologies of New York City announced yesterday that it has submitted its smallpox drug TPOXX (tecovirimat) for priority review by the US Food and Drug Administration (FDA). If approved, the oral drug would be the first FDA-approved treatment for smallpox, a disease that has been eradicated but could be used as a bioterror weapon. The news comes on the heels of media reports that North Korea could be building a bioweapons program that might include smallpox. ... SIGA has successfully delivered two million courses of TPOXX to the Strategic National Stockpile. No cure for smallpox currently exists, but lab personnel who work with smallpox or related viruses receive vaccination as a preventive measure. CIDRAP News Scan (first item)

"Supermalaria" is on the way

8 December - There has been growing hope in recent years that malaria could eventually be eradicated but that sense of optimism is currently facing some major new challenges. Scientists are warning that a "supermalaria" parasite is spreading rapidly across Southeast Asia, and could pose a global health threat if it spreads to Africa. It is resistant to artemisinin, the recommended first-line treatment for malaria. In addition, if the U.S. Congress carries out the proposed 44 percent cut to the President’s Malaria initiative (PMI) funding, it could have a significantly undercut prevention and treatment programs. Projections show that the PMI cut alone could lead to an additional 300,000 malaria deaths over the next four years. Scientific American

U.S. study sheds light on how Zika causes nerve disorder

13 December - A new study sheds light on how the mosquito-borne Zika virus causes a rare neurological condition, and the findings could have implications for companies working on
Zika vaccines, U.S. researchers said on Wednesday. ... Dr. Tyler Sharp of the U.S. Centers for Disease Control and Prevention’s Dengue Branch in San Juan and colleagues in Puerto Rico examined the rare case of a 78-year-old man from San Juan who had been infected with Zika in 2016, developed Guillain-Barre and subsequently died. An autopsy showed inflammation and erosion of the protective sheath known as myelin in two nerves, but no evidence of the Zika virus in nerve cells. ... Although it was just a single case, Sharp said it suggested the mechanism that causes Guillain-Barre after a Zika infection was the same as in other cases of the nerve disorder. Reuters

INFLUENZA

AFHSB: DoD Seasonal Influenza Surveillance Summary

For Week 48:

- NORTCOM: Influenza activity increased during week 48, and ranged from minimal to high, depending on the state.
- EUCOM: Influenza activity increased and was minimal to low in EUCOM.
- PACOM: Influenza activity remained minimal across PACOM, except for Hawaii, which had low activity.
- CENTCOM and AFRICOM: Complete TMDS data for week 48 is currently not available. Therefore, the CENTCOM map and figure are not presented as the data will be inaccurate.
- SOUTHCOM: Complete TMDS data for week 48 is currently not available. Therefore, SOUTHCOM data is incomplete and will not be provided.

DHA - Armed Forces Health Surveillance Branch

APHC: U.S. Army Influenza Activity Report

For the week ending 2 December 2017 (Week 48)

- The early start to this year’s influenza season and increasing influenza activity in the general U.S. population have respiratory illness experts warning that though annual influenza trends are unpredictable, this season may be worse than last year’s and may peak earlier.
- Influenza trends in the United States tend to be similar to those of Australia which experiences their influenza season during May-October. The number of laboratory-confirmed reports of influenza in Australia has almost tripled since last year, partly due to an early onset of flu activity, and preliminary reports estimate an overall vaccine effectiveness of 33%.
- Although this year’s vaccine effectiveness proved to be low in Australia and the vaccine may not always prevent illness, it is important to note that it can decrease the severity
of the flu (i.e. less severe symptoms, reduced hospitalizations, reduced mortality etc.). Military leaders are encouraged to accelerate vaccine receipt among Service Members (SM) to achieve the minimum 90% compliance rate and prepare for the potential impact of the flu on operational readiness. APHC

CDC: Flu View - Weekly U.S. Influenza Surveillance Report
During week 48 (November 26-December 2, 2017), overall influenza activity increased slightly in the United States.

- Viral Surveillance: The most frequently identified influenza virus type reported by public health laboratories during week 48 was influenza A. The percentage of respiratory specimens testing positive for influenza in clinical laboratories declined 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. CDC

ECDC: Flu News Europe
Week 48/2017 (27 November–3 December 2017)

- Influenza activity across Europe remained at low levels.
- Of the individuals sampled, on presenting with ILI or ARI to sentinel primary healthcare sites, 8.8% tested positive for influenza viruses, a higher proportion than the previous week (7%).
- Data from 16 countries or regions reporting to the EuroMOMO project indicated that all-cause excess mortality was within normal ranges for this time of year.

European Center for Disease Prevention and Control/WHO

In the U.S., flu season could be unusually harsh this year
8 December - Health officials are warning that the United States may have an unusually harsh flu season this year. But they stress that flu seasons are notoriously difficult to predict, and it’s far too early to know for sure what may happen. The concern stems from several factors, including signs that the season started a few weeks earlier than usual. ... Another reason for concern is that Australia had a severe flu season this year. ... A major reason for Australia's struggle is that the main strain of flu circulating there was one known as H3N2. That kind of flu virus tends to make people sicker than other strains, especially the elderly. To make things worse, the flu vaccine appears to have been only about 10 percent effective against that strain in Australia. ... The United States is using the same vaccine, and an H3N2 strain appears to be dominating outbreaks in this country so far too. NPR

NHRC: Operational Infectious Diseases - Weekly Surveillance Report
7 December - Febrile respiratory illness cases:
- Military Recruits - 23 positive of 42 tested
- CDC Border Infectious Disease Surveillance and Zika Surveillance - 34 positive of 62
Seasonal flu kills more globally than previously thought: U.S. study

13 December - As many as 646,000 people are dying globally from seasonal influenza each year, U.S. health officials said on Wednesday, a rise from earlier assessments of the disease's death toll. Global death rates from seasonal influenza are likely between 291,000 and 646,000 people each year, depending on the severity of the circulating flu strain, they said. That is up from a prior estimate range of 250,000 to 500,000 deaths, according to officials from the U.S. Centers for Disease Control and Prevention. ... The CDC did not give reasons for the hike in estimates but said the study ... was based on data from a larger, more diverse sample of countries than previously. Reuters

Study finds lingering effects in H7N9 survivors

8 December - The first study to track long-term outcome of patients after hospitalization with H7N9 avian flu infection in China found that lung problems and psychological issues persisted as long as 2 years after discharge. The study ... involved 56 patients from a single hospital in Zhejiang province who were sick during the country's first wave of H7N9 activity. ... The team followed the patients with chest radiographs, lung function tests, and quality of life surveys. Pulmonary function and imaging findings improved during the first 6 months after hospitalization, especially in patients who had experienced acute respiratory distress syndrome (ARDS). By the 2-year mark, most patients had returned to work, but more than half of the survivors still had problems with ventilation and blood-gas diffusion. ... Researchers noted that survivors not only experienced fear of death in the hospital, they also faced isolation at home after discharge from relatives and friends who feared the disease. CIDRAP News Scan (second item)

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

During 19 November - 2 December 2017 (Surveillance Weeks 47 & 48), a total of 222 specimens were collected and received from 50 locations. Results were finalized for 106 specimens from 36 locations. During Week 47, nine influenza A(H3N2), five influenza A(H1N1)pdm09, three influenza B, and one influenza B co-infection were detected with an influenza percent positive of approximately 23%. During Week 48, nine influenza A(H3N2), two influenza A(H1N1)pdm09, and one influenza B were detected with an influenza percent positive of approximately 41%. U.S. Air Force School of Aerospace Medicine & Defense Health Agency
WHO: Influenza Update

11 December - Influenza activity continued to increase in the temperate zone of the northern hemisphere while in the temperate zone of the southern hemisphere activity appeared to have decreased at inter-seasonal levels. In Central America and the Caribbean, influenza activity remained low. Worldwide, influenza A(H3N2) and B viruses accounted for the majority of influenza detections. WHO

VETERINARY/FOOD SAFETY

An *E. coli* O157 outbreak in Canada is linked to romaine lettuce, sickening 21 people in 3 provinces

12 December - *E. coli* O157 outbreak in Canada is linked to romaine lettuce. There are no product recalls at this time associated with this outbreak. At least 21 people are sick in three provinces. The case count by province is: Quebec (3), New Brunswick (5), and Newfoundland and Labrador (13). Ten of those patients have been hospitalized because their illness is so serious. All of these people got sick in middle and late November 2017. The patient age range is from 5 to 72. Most of the cases, 72%, are female. Many of these people reported eating romaine lettuce before their symptoms started. Food Poisoning Bulletin

*Campylobacter* outbreak linked to Petland puppies expands to 17 states, almost 100 cases

14 December - Since our last report on the multidrug-resistant *Campylobacter* infections linked to contact with pet store puppies at the end of October, 30 more ill people have been reported from 11 states. According to the Centers for Disease Control and Prevention (CDC), as of December 12, 2017, 97 people with laboratory-confirmed infections or symptoms consistent with *Campylobacter* infection have been linked to this outbreak. Illnesses have been reported from 17 states. Twenty-two (24%) of 91 ill people with available information have been hospitalized. No deaths have been reported. Outbreak News Today

Europe's *Salmonella* decline stalls with increased egg contamination

12 December - A promising decade-long decline in foodborne *Salmonella* infections in Europe has leveled off, with a small increase reported in 2016, much of it linked to eggs and egg products, according to a joint report today from the European Centre for Disease Prevention and Control (ECDC) and the European Food Safety Authority (ESFA). The annual report covers 2016 data on zoonotic foodborne diseases from 28 European Union member states and 9
other countries. For the year, officials detailed 4,786 foodborne illness outbreaks, a slight increase from 2015 but similar to the region’s average since 2010. CIDRAP

Massive baby milk recall; 26 infants sick

13 December - Lactalis, a French baby milk producer, is recalling certain batches of baby milk for *Salmonella*. The recall came after 26 infants became sick with *Salmonella Agona*, known to cause diarrhea and fever that is particularly dangerous for babies. “Despite the fact that all the batches exported were conformed to the local rules, Lactalis has decided to remove batches produced since the 15th of February 2017,” according to the recall notice. The recalled products were not distributed in the United States, though Lactalis does have a robust U.S. operating unit. Countries known to have received the recalled products include: Britain, Greece, Morocco, Sudan, Peru, Colombia, Pakistan, Bangladesh and China. Click here for the full list of recalled products, which includes brand names such as Milumel, Celia, and Picot. Food Safety News

Treating bumps and humps: Dubai opens $10 million camel hospital

14 December - Camels remain an important part of the Gulf Arab state’s heritage. Camel races and camel beauty pageants are a favorite recreation for locals, and some beasts fetch millions of dollars at auctions in the country. Preserving that heritage is part of the purpose of Dubai Camel Hospital, which cost 40 million dirhams ($10.9 million) and is the first of its kind in the world, said Mohamed Al Bulooshi, the hospital’s director. “... Staffed by a team of international veterinarians, the hospital can treat 20 camels. Reuters

WELLNESS

Acupressure app may help ease menstrual cramp pain

8 December - Women with intense menstrual cramp pain may get more relief from smartphone app-guided acupressure than with typical medical treatments like painkillers, a recent study suggests. ... Researchers randomly assigned 221 women to use the app or to stick with usual care for six months. ... By the time women in the study went through their third menstrual cycle, participants using the acupressure app reported average pain scores of 4.4, compared with 5.0 for the other women in the study. By the sixth menstrual cycle, women with the acupressure app reported pain scores that were typically 1.4 points lower, a large enough gap to represent a clinically meaningful difference. Reuters
Adults can get Type 1 diabetes, too

8 December - ... [I]t looks as if not only can Type 1 diabetes occur in adults, it’s just as likely to appear in adulthood as in childhood or adolescence. Using data from a resource called the UK Biobank, Dr. Nicholas J. Thomas and colleagues from Exeter University applied a genetic risk score that they developed from 29 genes commonly associated with Type 1 diabetes to 13,250 people who developed diabetes over the first 60 years of their lives. Overall, 42 percent of cases of Type 1 diabetes started when people were 31 to 60 years old, while 58 percent were diagnosed at age 30 or younger. Type 1 was equally likely to appear across the first six decades of life, whereas the occurrence of Type 2 diabetes rose dramatically with age, accounting for 96 percent of cases in the 31-60 age group. ... Compared to the Type 2 group, those with Type 1 of all ages were generally thinner, were more likely to have begun insulin treatment within a year of diagnosis, and were more likely to have experienced ketoacidosis, a dangerous metabolic condition that arises when the body lacks insulin. NPR

Air pollution fine particles linked to poor sperm quality

11 December - Exposure to fine particles in air pollution may be another factor that affects men’s sperm quality and their fertility, suggest researchers in Taiwan. Although the clinical effect may be small, the findings could be important from a public health perspective due to worldwide exposure to pollution, the authors write in BMJ Occupational and Environmental Medicine. "Particulate matter contains many toxic chemicals such as heavy metals and polycyclic aromatic hydrocarbons, which have demonstrated harmful to semen quality in laboratory and animal studies," lead author Xiang Qian Lao told Reuters Health in an email. Reuters

Black mothers keep dying after giving birth. Shalon Irving's story explains why

7 December ... According to the CDC, black mothers in the U.S. die at three to four times the rate of white mothers, one of the widest of all racial disparities in women’s health. ... The systemic problems start with ... social inequities ... — differing access to healthy food and safe drinking water, safe neighborhoods and good schools, decent jobs and reliable transportation. Black women are more likely to be uninsured outside of pregnancy, when Medicaid kicks in, and thus more likely to start prenatal care later and to lose coverage in the postpartum period. They are more likely to have chronic conditions such as obesity, diabetes and hypertension that make having a baby more dangerous. The hospitals where they give birth are often the products of historical segregation, lower in quality than those where white mothers deliver, with significantly higher rates of life-threatening complications. Those problems are amplified by unconscious biases that are embedded in the medical system, affecting quality of care in stark and subtle ways. NPR
Graphic point-of-sale cigarette warnings may encourage teen smoking

13 December - Anti-tobacco advocates widely consider graphic warnings depicting the gruesome effects of cigarette use to be highly effective for preventing people from smoking and convincing smokers to quit. But findings from a novel study by researchers at the RAND Corporation calls the strategy’s effectiveness into question for teens at high risk for tobacco use. RAND researchers constructed a one-of-a-kind laboratory resembling a convenience store to test their hypothesis that viewing posters depicting the ravages of smoking at retail, point-of-sale, locations would serve as a smoking deterrent to vulnerable teens. Seeing the poster image in the mock convenience store setting appeared to have little effect on teens who expressed little or no desire to smoke in pre-exposure surveys. But seeing the posters appeared to increase the desire to smoke among teens considered at high risk for future smoking based on the pre-exposure survey. MedPage Today

Heat-not-burn tobacco 'is a health risk'

12 December - "Heat-not-burn" tobacco products are harmful to health even though they are safer than regular cigarettes, say UK experts. The advisory panel to the government said the devices produce "a number of compounds of concern", including some that can cause cancer. ... The Committee on Toxicity (Cot) looked at the available evidence about the risks of two heat-not-burn products that have recently gone on sale in the UK - IQOS and iFuse. The devices heat tobacco to a high enough temperature to create a vapour but not smoke. They are different to e-cigarettes, which vaporise a liquid containing nicotine. The committee found that people using heat-not-burn products are exposed to between 50% to 90% fewer "harmful and potentially harmful" compounds compared with conventional cigarettes. BBC News

The invention of prevention

12 December - Concern has mounted for 40 years over the inexorable rise of U.S. health care costs despite mediocre health outcomes compared to other advanced countries. Particularly since 2000, healthcare movers and shakers have convinced Americans that the solution is prevention -- if the health care system focuses on maintaining consumers' health, then they will avoid illnesses that require expensive treatments, and costs will decline. ... Adults can stay healthy, it is said, by getting routine check-ups and recommended cancer screenings and flu shots. Also, changing their "behaviors," as counseled by health care providers at regular visits: eating less (and better), exercising more, and eschewing fast food, tobacco, alcohol, and opiates. ... The trouble is, the medical system is really not the best tool for primary prevention; it is neither efficient nor particularly effective. It is also very expensive. The most effective way to improve the health of a population is to improve the so-called "social determinants of health" -- education, income, employment, environment, social supports, etc. ... Why isn't the medical system more useful for primary prevention? It is hard to make a healthy adult healthier. MedPage Today
Vigorous exercise tied to macular degeneration in men

14 December - A new study suggests that vigorous physical activity may increase the risk for vision loss, a finding that has surprised and puzzled researchers. Using questionnaires, Korean researchers evaluated physical activity among 211,960 men and women ages 45 to 79 in 2002 and 2003. Then they tracked diagnoses of age-related macular degeneration, from 2009 to 2013. Macular degeneration, the progressive deterioration of the central area of the retina, is the leading cause of vision loss in the elderly. They found that exercising vigorously five or more days a week was associated with a 54 percent increased risk of macular degeneration in men. They did not find the association in women. The New York Times

Warning labels can help reduce soda consumption and obesity, new study suggests

14 December - Labels that warn people about the risks of drinking soda and other sugar-sweetened beverages can lower obesity and overweight prevalence, suggests a new study. The study used computer modeling to simulate daily activities like food and beverage shopping of the populations of three U.S. cities – Baltimore, San Francisco and Philadelphia. It found that warning labels in locations that sell sugary drinks, including grocery and corner stores, reduced both obesity and overweight prevalence in the three cities, declines that the authors say were attributable to the reduced caloric intake. The virtual warning labels contained messaging noting how added sugar contributes to tooth decay, obesity and diabetes. Johns Hopkins Bloomberg School of Public Health

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USAFRICOM

Africa: Cholera outbreaks reported in Kenya, Zambia

12 December - Yesterday the WHO reported two outbreaks of cholera in Kenya and Zambia, with the Kenyan outbreak involving nearly 4,000 cases. Between Jan 1 and Nov 29, Kenyan officials have reported 3,967 probable and confirmed cases of cholera, including 76 deaths. Transmission has been linked to camps, institutions, and mass gatherings. Community transmission is still ongoing in 7 Kenyan counties as of Nov 29, but 20 of 47 counties (43%) in the country have documented cholera cases this year. The WHO said the risk of widespread transmission in Kenya is high. In Zambia, officials have reported 547 cases and 15 deaths since late September. Most cases are in the capital of Lusaka. The districts where cases have been documented have poor sanitation and water supply. A recent influx of refugees from the Democratic Republic of the Congo and the upcoming rainy season mean there's a strong chance the outbreak will grow in the coming months, the WHO said.
CIDRAP News Scan (third item)
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Iraq: How ISIS produced its cruel arsenal on an industrial scale

10 December - Late this spring, Iraqi forces fighting the Islamic State in Mosul discovered three unfired rocket-propelled grenades with an unusual feature — a heavy liquid sloshing inside their warheads. Tests later found that the warheads contained a crude blister agent resembling sulfur mustard, a banned chemical weapon intended to burn a victim’s skin and respiratory tract. The improvised chemical rockets were the latest in a procession of weapons developed by the Islamic State during a jihadist arms-manufacturing spree without recent analogue. Irregular fighting forces, with limited access to global arms markets, routinely manufacture their own weapons. But the Islamic State took the practice to new levels, with outputs “unlike anything we’ve ever seen” from a nonstate force, said Solomon H. Black, a State Department official who tracks and analyzes weapons. The New York Times

Saudi Arabia reports new MERS case, fatality

11 December - The Saudi Arabian Ministry of Health (MOH) reported a new case of MERS-CoV in Riyadh late on Dec 8 and the death of a previously confirmed patient today. A 90-year-old Saudi man is in critical condition after presenting with symptoms of MERS-CoV (Middle East respiratory syndrome coronavirus) infection. The patient’s source of infection is listed as “primary,” meaning it’s unlike he contracted the virus from another person. Today the MOH reported that a previously described patient, a 71-year-old Saudi man from Buraydah, has died. He had preexisting conditions at the time of his MERS diagnosis. Saudi Arabia’s MERS-CoV case count since 2012 has now reached 1,754, including 710 deaths. Three patients are still being treated, according to the MOH. CIDRAP News Scan (third item)

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Europe: Italy declares state of emergency after deadly gas explosion in Austria

12 December - Snow-hit southern Europe could face energy shortages after authorities warned that Austrian pipelines were likely to be out of action for days following an explosion and fire that ripped through a main gas hub near Vienna. Baumgarten, where the explosion occurred, is a key distribution and reception hub for gas exports and imports, including from Russia, Europe’s biggest gas supplier. In Italy, where rain, snow and extreme cold weather have disrupted traffic in the north-east over the last few days, the country’s industry minister
declared a state of emergency due to a lack of gas supplies. One person was killed and 18 injured in the blast on Tuesday. … Austrian police said the explosion in Baumgarten, which is north-east of Vienna, had been caused by a technical problem. Fire services worked until the early afternoon to put out fires started by the blast. The Guardian

Greece reports measles outbreak, the south hardest hit

9 December - While Europe has been seeing a measles outbreak during the past two years or so, affecting thousands, Greece has been largely unaffected until recent months. Since Aug. 2017, 364 measles cases have been reported with 167 reported in October alone. The Hellenic Centre for Disease Control and Prevention (KEELPNO) says the majority of the cases have been reported from South Greece, affecting mainly people of Greek nationality (mainly young Roma children, as well as Greek adults mainly aged 25-44 years old) susceptible to measles, among them healthcare professionals who were unvaccinated or partly vaccinated. One death has been reported in a laboratory confirmed measles case, concerning a Roma infant 11 months old, with underlying dystrophy, unvaccinated, who died of septicemia. Outbreak News Today

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USNORTHCOM

Mexico: A nasty, NAFTA-related surprise - Mexico’s soaring obesity

11 December - … Mexico began lifting tariffs and allowing more foreign investment in the 1980s, a transition to free trade given an exclamation point in 1994, when Mexico, the United States and Canada enacted the North American Free Trade Agreement. Opponents in Mexico warned the country would lose its cultural and economic independence. But few critics predicted it would transform the Mexican diet and food ecosystem to increasingly mirror those of the United States. In 1980, 7 percent of Mexicans were obese, a figure that tripled to 20.3 percent by 2016, according to the Institute for Health Metrics and Evaluation at the University of Washington. Diabetes is now Mexico’s top killer, claiming 80,000 lives a year, the World Health Organization has reported. … The phenomenon is not limited to Mexico. Research shows free trade is among the key factors that have accelerated the spread of low-nutrient, highly processed foods from the west, “driving the obesity epidemic in China, India, and other developing countries worldwide,” according to the T.H. Chan School of Public Health at Harvard. The New York Times
U.S.: 4,500 portable generators recalled

12 December - MWE Investments has recalled about 4,500 units of Westinghouse iGen2500 and iPro2500 portable inverter generators, devices that are used to power appliances, cell phones, or other electronic devices. The portable inverter generators can overheat, posing a fire hazard, the company and the U.S. Consumer Product Safety Commission warned on Dec. 7. ... Consumers should immediately stop using the recalled generators and contact MWE Investments to arrange for a free repair. The firm has received four reports of the recalled generators overheating and catching fire, but no injuries have been reported. Occupational Health and Safety

U.S.: A snapshot of Lyme disease in the U.S.

9 December - Lyme disease, caused by the spirochete Borrelia burgdorferi, is the most common vector-borne illness reported in the U.S. Cases occur mainly in the Northeast, Mid-Atlantic, and upper Midwest, but certain areas of the Pacific coast are not immune. The geographic distribution is based on residence of Ixodes scapularis (Ixodes pacificus on the Pacific coast), the vectors that transmits Lyme disease. ... The Morbidity & Mortality Weekly Report recently published surveillance data for Lyme disease in the U.S. from 2008-2015. ... According to the CDC surveillance report, the top seven states for Lyme disease in 2015 were:

- Vermont: 78.4 per 100,000/year
- Maine: 74.7 per 100,000/year
- Pennsylvania: 57.5 per 100,000/year
- Rhode Island: 53.4 per 100,000/year
- Connecticut: 52.2 per 100,000/year
- New Jersey: 43.9 per 100,000/year
- Massachusetts: 43 per 100,000/year

U.S.: Antibiotics sales for use in U.S. farm animals dropped in 2016: FDA

7 December - The sale and distribution of antibiotics approved for use in food-producing animals in the United States decreased by 10 percent from 2015 to 2016, a U.S. Food and Drug Administration (FDA) report said on Thursday. It was the first decline in year-to-year sales since the FDA began collecting the data in 2009, according to food and consumer health groups. For years scientists have warned that the regular use of antibiotics to promote growth and prevent illness in healthy farm animals fuels dangerous, antibiotic-resistant “superbug” infections in people. Major U.S. food companies including McDonald’s and Tyson Foods have stepped up efforts to curtail, and in some cases eliminate, antibiotics in their products. Reuters
U.S.: Battle against Thomas fire enters second week as blaze continues to grow

12 December - The massive Thomas fire, which has burned through Ventura County for over a week and entered Santa Barbara County over the weekend, has now scorched 234,200 acres and is 20% contained, fire officials said Tuesday. The fire, which began Dec. 4, grew about 2,500 acres overnight as gusting winds pushed the flames down the slopes of the Santa Ynez Mountains and closer to homes in Montecito, a wealthy enclave in Santa Barbara County. Fire crews saved some mountainside homes from flames that tore through nearby Toro and Romero canyons, and specially outfitted helicopters dumped water through the night. So far, 2.4 million gallons of water and 1.2 million gallons of fire retardant have been used to fight the Thomas fire, the fifth largest in state history. Los Angeles Times

U.S.: DHS creates Countering Weapons of Mass Destruction Office

11 December - U.S. Homeland Security Secretary Kirstjen Nielsen on Dec. 7 announced the establishment of the DHS Countering Weapons of Mass Destruction Office. The office will elevate and streamline DHS efforts to prevent terrorists and other national security threat actors from using harmful agents, such as chemical, biological, radiological, and nuclear material and devices, to harm Americans and U.S. interests. ... The office ... will allow for increased policy coordination and strategic planning. Occupational Health and Safety

U.S.: FDA proposes new fast path to market for certain medical devices

11 December - The U.S. Food and Drug Administration on Monday proposed creating a new fast track to market for certain medical devices and a potential reduction in the amount of safety data required for approval. Commissioner Scott Gottlieb announced the proposal in a blog posted on the FDA's website. If implemented, it could save device companies millions of dollars in product testing and shave years off development times. The proposals make good on President Donald Trump's promise to cut regulations and sparked concern from public health advocates who fear the moves will harm patients. Already dozens of devices are recalled each year. Gottlieb's proposal would offer an alternative route to market for certain companies which do not meet the criteria for clearance under the agency's existing fast track route, known as the 510(k) pathway. Reuters
U.S.: Teens - pretty sober, except for marijuana and vaping

14 December - The number of teens abusing drugs is lower than it's been since the 1990s, according to a national survey. "In particular, we see a tremendous decline in the portion of young people using cigarettes," Dr. Lloyd Johnson, a study researcher at the University of Michigan, said at a press conference on Thursday. "The changes we're seeing are very large and very important." But there are a couple of key exceptions. "[One] is marijuana. It hasn't gone up, like in older populations, but it hasn't gone down, and it remains worrisome," Dr. Nora Volkow, director of the National Institute on Drug Abuse, which funds the survey. "Another concern is we see very high and very fast uptake of electronic vaping devices." 

U.S.: The U.N. looks at extreme poverty in the U.S., from Alabama to California

12 December - The United Nations is investigating extreme poverty in the U.S. ... This month, his team set out to visit cities and towns in Alabama, California, Puerto Rico and West Virginia, as well as Washington, D.C. ... As NPR reported this fall, one sign of the poverty in Alabama is the reemergence of hookworm, documented in a new study. ... Hookworm was rampant in the U.S. more than 100 years ago. It thrived in the poor south, where many families could not afford proper outhouses and sewer systems were rare. Thanks to widespread treatment efforts, education and economic development, the parasitic worm was eradicated in the U.S. although the exact date isn't clear — somewhere between the 1950s and the 1980s. Hookworm was now just a problem of the developing world — or so we thought. In the study, 19 of 55 individuals in an Alabama community tested positive for the hookworm, which was thought to have been eradicated in the U.S. by the 1980s. 

Bangladesh - Diphtheria – Cox’s Bazar

13 December - From 3 November 2017 through 12 December 2017, a total of 804 suspected diphtheria cases including 15 deaths were reported among the displaced Rohingya population in Cox’s Bazar. The first suspected case was reported on 10 November 2017 by a clinic of Médecins Sans Frontières (MSF) in Cox’s Bazar. Of the suspected cases, 73% are younger than 15 years of age and 60% females (the sex for one percent cases was not reported). Fourteen of 15 deaths reported among suspected diphtheria cases were children younger than 15 years of age. To date, no cases of diphtheria have been reported from local communities.
India: India bans condom ads from prime-time TV

12 December - For months, conservative groups in India have been complaining about condom manufacturers’ risqué ads. One of the most titillating features Sunny Leone, a former actress in X-rated videos, undressing piece by piece. So India’s government stepped in this week, declaring condom commercials “indecent” viewing for children and restricting them to the hours of 10 p.m. to 6 a.m., when relatively few people watch television. But progressive social groups said this was a bad move. India, they argue, desperately needs more condom use, not less. The country’s population currently stands around 1.3 billion, and within the next decade India is expected to pass China and become the world’s most populous nation. The government has spent huge amounts of money trying to control the meteoric population growth, incentivizing vasectomies and other forms of birth control. The New York Times

Indonesia: Indonesia races to contain diphtheria outbreak ahead of 2018 Asian Games

11 December - Health authorities in Jakarta kicked off a special immunization program on Monday to rein in an “extraordinary” outbreak of diphtheria that has sparked concerns about the Indonesian capital’s readiness to host the Asian Games next June. Diphtheria cases have spiked 42 percent since last year, health officials say, with at least 32 deaths and more than 590 cases recorded across the archipelago, the bulk of them in densely populated Jakarta and neighboring provinces. Reuters

North Korea: Officials see weapons threat as North Korea gains biotech expertise

10 December - Five months before North Korea’s first nuclear test in 2006, U.S. intelligence officials sent a report to Congress warning that secret work also was underway on a biological weapon. The communist regime, which had long ago acquired the pathogens that cause smallpox and anthrax, had assembled teams of scientists but seemed to be lacking in certain technical skills, the report said. ... A decade later, the technical hurdles appear to be falling away. North Korea is moving steadily to acquire the essential machinery that could potentially be used for an advanced bioweapons program, from factories that can produce microbes by the ton, to laboratories specializing in genetic modification, according to U.S. and Asian intelligence officials and weapons experts. The Washington Post

Philippines: Philippines defied experts' advice in pursuing dengue immunization program

10 December - As she announced in January 2016 that the Philippines would immunize one million children with a new dengue vaccine, the nation’s then health secretary Janette Garin boasted it was a world-first and a tribute to her country’s “expertise” in research. ... Almost two years later, the program lies in tatters and has been suspended after Sanofi Pasteur, a division of French drug firm Sanofi, said at the end of last month the vaccine itself may in some cases
increase the risk of severe dengue in recipients not previously infected by the virus. Documents reviewed by Reuters that have not been disclosed until now, as well as interviews with local experts, show that key recommendations made by a Philippines Department of Health (DOH) advisory body of doctors and pharmacologists were not heeded before the program was rolled out to 830,000 children. Reuters

Philippines: Philippines to seek refund of $59 million from Sanofi amid vaccine risk

8 December - The Philippines will seek the return of 3 billion pesos ($59 million) it paid French drugmaker Sanofi for a dengue vaccine used to immunize hundreds of thousands of children that Sanofi has said could worsen the disease in some cases. “We will demand the refund of the 3 billion (pesos) paid for the Dengvaxia and (demand) that Sanofi set up an indemnification fund to cover the hospitalization and medical treatment of all children who might have severe dengue,” Health Secretary Francisco Duque told reporters on Friday. The Philippines last week suspended a national immunization program after Sanofi’s recent findings that there was a risk of severe dengue occurring in previously uninfected people who were inoculated with Dengvaxia. Manila also halted sale of the vaccine in the country and has ordered a probe into the matter. Reuters

Panama: U.S. officials stop semi-submersible vessel carrying cocaine off Panama coast

12 December - U.S. officials intercepted a semi-submersible vessel carrying more than 3,800 pounds (1,700 kilograms) of cocaine last month after pursuing it in international waters off the coast of Panama. Customs and Border Protection says the U.S. Coast Guard stopped the vessel Nov. 13. The three crew members were arrested. Officials say such semi-submersible vessels are designed to navigate low in the water to avoid detection. Officials say a Customs and Border Protection Air and Marine Operations crew in an aircraft tracked the vessel and coordinated with Joint Interagency Task Force-South to intercept it. National Air Security Operations Center-Corpus Christi Director Allen Durham says “the drug cartels are relentless and extremely innovative.” Navy Times
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