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**U.S. MILITARY**

**Burn pit vet's widower says memos show that grave illness didn't need to happen**

3 November - ... Thousands of veterans and former contractors returned from the Middle East and have developed rare cancers, respiratory problems, and blood disorders from what they claim are their exposure to toxins from the flaming pits. More than 140,000 active-service members and retirees have put their names on a Burn Pit Registry created by the Department of Veterans Affairs. ... [Brian Muller, widower of Amie, has] worked closely with Sen. Amy Klobuchar, D-Minn., toward getting “The Helping Veterans Exposed To Burn Pits Act” ... passed. ... Fox News recently obtained a series of memos drafted by top officials at AFB Balad during the same years that Amie served on the base. The authors of the documents -- which include commanding officers as well as environmental officials -- stated that the operation of burn pits was a danger to those stationed there and that precautions needed to be taken urgently to improve conditions. Fox News

**Defense Health Care: DOD should demonstrate how its plan to transfer the administration of military treatment facilities will improve efficiency**

October 2018 – ... [T]he NDAA for Fiscal Year 2017 required DOD to develop an implementation plan that addressed four elements related to transferring the administration of the MTFs to the DHA. DOD issued the plan in June 2018. The NDAA also included a provision for GAO to review the plan. ... GAO assessed DOD’s plan against the required elements and, where appropriate, considered the extent to which the plan provided detailed information related to key change management practices identified in past GAO work. GAO recommends that DOD define and analyze the 16 operational readiness and installation-specific medical functions for duplication, validate headquarters-level personnel requirements, and identify the least costly mix of personnel. DOD concurred with all three recommendations and noted actions it was taking to address each one. GAO

**DoD, FDA working together to benefit warfighters**

2 November - In a move to better serve the unique needs of the nation’s warfighters, leaders from the U.S. Food and Drug Administration and the Office of the Assistant
Secretary of Defense for Health Affairs signed a memorandum of understanding to foster and prioritize the development of critical medical products. ... DoD is able to request help in speeding up development and review of products used to diagnose, treat, or prevent serious or life-threatening diseases and conditions faced by service members. It also allows for emergency use of medical products for threats that pose a specific risk to service members, including biological, chemical, radiological, or nuclear agents. Health.mil

Vector-borne Disease Report

Highlights in this issue:
As of 2 November 2018, 257 cases of vector-borne diseases have been diagnosed and reported in the Disease Reporting System internet (DRSi). Approximately 53% of the cases were among Active Duty (AD) Service Members (SMs).

The number of diagnosed Lyme disease cases decreased by 43% from 2017 to 2018.

The 61% increase in the number of malaria cases from 2017 to 2018 was partially due to clusters of cases that were exposed outside of the Continental United States (OCONUS).


October 2018 - This study evaluated incidence of pre-deployment family problem diagnoses and psychiatric medical evacuations among a population of active component service members without a history of previous mental health diagnoses, who deployed to the U.S. Central Command Area of Responsibility for the first time between 1 January 2002 and 31 December 2014. During the surveillance period, 6,182 service members received an incident family problem diagnosis during the pre-deployment period, with an overall incidence of 5.6 cases per 1,000 deployers. ... Compared to their respective counterparts, rates of pre-deployment family problems were highest among females, non-Hispanic black service members, those who were married, enlisted service members, and Army members. A total of 2,190 active component service members were evacuated from theater for psychiatric reasons. ... Of evacuated service members, 1.7% had diagnosed pre-deployment family problems (N=38). Incidence of psychiatric medical evacuation was consistently higher among those with pre-deployment family problems among all demographic subgroups, and overall was 2.7 times the incidence among those without documented family problems.

So you’re telling me there’s a chance: Observations from the Army Combat Fitness Test pilot

5 November - There has been much ado lately over the Army’s decision to implement a new physical fitness test. Lt. Gen. (ret.) David Barno and Nora Bensahel recently authored an indictment, which, while compelling on its surface, did not sufficiently ground its arguments in any substantiating data or corroborating evidence. Contrary to the authors’ assertions, our experience with the test pilot in West Point’s Department of Physical Education suggests that the Army Combat Fitness Test (ACFT) is not a disaster in the making. ... Instead, the ACFT is a meticulously researched, well-thought out, and extensively vetted test of comprehensive physical fitness that will go a long way towards replacing a broken fitness test that has led to a broken fitness culture. To be sure, there are kinks to be addressed and plenty of testing still ahead, but on the basis of our experience at West Point, Army leaders would do well to give the ACFT a chance. War on the Rocks
The Army is looking to make a sports bra that also measures soldier performance

6 November - The Army has issued uniform items from top to bottom and inside out, except for one very important piece of clothing: a bra. ... A designer at the Natick Soldier Research, Development and Engineering Center has taken up the cause again — however, this time adding an element of performance measurement. “So, I thought, let’s kill two birds with one stone. Let’s give them something that fits well and also create a platform where we can run the same tests and analysis that previously had been done on the male majority,” Ashley Cushon said in an Oct. 25 Army release. She dubbed the project BAMBI — Biometric Algorithm Monitoring Brassiere Integration. ... “I wanted an innovative name that alluded to the end goal of the item — which is to function as an integrated platform for physiological sensing specifically designed to the female soldier’s biology,” Cushon [said.] Army Times

GLOBAL

Apple's heart study is the biggest ever, but with a catch

1 November - Last November, Apple Watch owners began receiving recruitment emails from Apple. The company was looking for owners of its smartwatch to participate in the Apple Heart Study—a Stanford-led investigation into the wearable's ability to sense irregular heart rhythms. Joining was simple: Install an app and wear your watch. If the watch's optical sensors detected an arrhythmia, you might be shipped a dedicated heart monitor—a benchmark to compare against readings from your Apple Watch—to wear for seven days. ... Apple and Stanford [Medicine] have managed to enroll a staggering 419,093 participants. ... But here’s the thing: Even if the Apple Watch excels at detecting undiagnosed AF (a big if), using it to screen large numbers of asymptomatic people isn’t necessarily a good idea. Screening comes with risks: Misdiagnosis. Unnecessary tests. Overtreatment. “Those are real problems that need to be sorted out,” says cardiologist Mintu Turakhia, the study's lead author and director of Stanford’s Center for Digital Health. Wired

Artificial intelligence can predict Alzheimer’s 6 years earlier than medics, study finds

7 November - Artificial intelligence can be used to spot Alzheimer’s six years before a patient would normally be diagnosed, a study shows. Doctors used the self-learning computer to detect changes in brain scans too subtle for humans to see. The system was
The Surgeon General Weekly Read Book

The Surgeon General Weekly Read Book is available with articles classified up to the SECRET level on the APHC SIPRNet site:

https://intelshare.intelink.sgov.gov/sites/medcom-g2/SitePages/Home.aspx

To access this version, you will need a SECRET clearance and a SIPRNet account.

able to identify dementia in 40 patients an average of six years before they were formally diagnosed. British AI expert Prof Noel Sharkey, from the University of Sheffield, said of the findings: "This is exactly the sort of task that deep learning is cut out for - finding high-level patterns in data." Fox News

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Botulinum toxin: Researchers discover potential antidote for most poisonous bacterial toxin

7 November - Researchers have identified a compound that strongly inhibits botulinum neurotoxin, the most toxic compound known. That inhibiting compound, nitrophenyl psoralen (NPP), could be used as a treatment to reduce paralysis induced by botulism. Botulinum neurotoxin is considered a potential bioweapon because there is no FDA-approved antidote. Outbreak News Today

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Chronic exposure to excess noise may increase risk for heart disease, stroke

5 November - Exposure to environmental noise appears to increase the risk of heart attacks and strokes by fueling the activity of a brain region involved in stress response. This response in turn promotes blood vessel inflammation, according to preliminary research. ... The findings reveal that people with the highest levels of chronic noise exposure—such as highway and airport noise—had an increased risk of suffering cardiovascular events such as heart attacks and strokes, regardless of other risk factors known to increase cardiovascular risk. The results of the study offer much-needed insight into the biological mechanisms of the well-known, but poorly understood, interplay between cardiovascular disease and chronic noise exposure, researchers said. Medical Xpress

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Do mosquitoes bite some people more than others?

3 November - ... Scientists estimate that 20% of people are more likely to attract mosquitoes and thus get bitten more often. But what makes some people more delicious (to mosquitoes) than others? Whether or not we are doomed to be highly attractive to mosquitoes is mostly determined by our genetics. For starters, the main way mosquitoes search for their next victim is by tracking down our carbon dioxide output, a telltale sign of a mammal’s existence. This means your metabolic rate, or the amount of CO2 your body releases as it burns energy, is a big factor when it comes to attracting mosquitoes. To a large extent our metabolism is predetermined by our genetics but we do have the power to alter it somewhat. Drinking alcohol and exercising can both raise your resting metabolic rate and thus make you more attractive to mosquitoes. Scientific American
Donors pledge $1 billion for maternal and child health fund

6 November - Governments of 10 countries joined philanthropists and the European Commission on Tuesday to pledge $1 billion to a World Bank-backed fund for improving health and nutrition among millions of women and children in poor countries. The money will help replenish the Global Financing Facility (GFF) - a fund set up in 2015 to help poor countries change the way they finance health by encouraging long-term investment in lifesaving maternal and newborn health policies. Reuters

Four nations report total of 9 new polio cases

2 November - Afghanistan officials have reported 3 new cases of wild poliovirus 1 (WPV1), while Papua New Guinea (3 cases), Nigeria (2 cases), and the Democratic Republic of the Congo (DRC, 1 case) have all reported cases involving circulating vaccine-derived poliovirus (cVDPV), according to a weekly update today from the Global Polio Eradication Initiative (GPEI). … [Afghanistan] has now logged 19 WPV1 cases this year, compared with 8 at this point last year and 14 for all of 2017. The only other country that has reported WPV1 cases this year is Pakistan, which has had 6. CIDRAP News Scan (first item)

Gene study reveals secrets of parasitic worms, possible treatments

5 November - The largest study to date of the genetic makeup of parasitic worms has found hundreds of new clues about how they invade the human body, evade its immune system and cause disease. The results point to potential de-worming treatments to help fight some of the most neglected tropical diseases - including river blindness, schistosomiasis and hookworm disease - which affect around a billion people worldwide. … [T]he research team compared the genomes of 81 species of roundworms and flatworms, including 45 that had never previously had their genomes sequenced. The analysis found almost a million new genes that had not been seen before, belonging to thousands of new gene families, and identified many new potential drug targets and drugs. "We focused our search by looking at existing drugs for human illnesses," said the Sanger Institute’s Avril Coghlan, who worked on the team. Reuters
Novel antibiotic shows promise in treatment of uncomplicated gonorrhea

7 November - An investigational oral antibiotic called zoliflodacin was well-tolerated and successfully cured most cases of uncomplicated gonorrhea when tested in a Phase 2 multicenter clinical trial, according to findings published today in the New England Journal of Medicine. Zoliflodacin (formerly known as ETX0914 and AZD0914), developed by Entasis Therapeutics based in Waltham, Massachusetts, represents a new type of oral antibiotic that inhibits DNA synthesis in a different way than currently approved antibiotics. NIH

Original research: Patient handling and mobility course content - A national survey of nursing programs

November 2018 - Despite the evidence supporting safe patient handling and mobility (SPHM) practices, anecdotal evidence suggests that such practices are not universally taught in academic nursing programs. The primary goal of this cross-sectional descriptive study was to understand what nursing programs teach students about lifting, turning, transferring, repositioning, and mobilizing patients. Faculty from 228 baccalaureate and associate's degree nursing programs completed the questionnaire. Most curricula included outdated manual techniques, taught reliance on body mechanics to reduce the risk of musculoskeletal injuries, and made use of nonergonomic aids such as draw sheets. Elements of SPHM in the curricula were less common, and nearly half of the respondents didn’t know whether their affiliated clinical facilities had an SPHM program. American Journal of Nursing

Patients with untreated hearing loss incur higher health care costs over time

8 November - Older adults with untreated hearing loss incur substantially higher total health care costs compared to those who don’t have hearing loss—an average of 46 percent, totaling $22,434 per person over a decade, according to a new study. The differences between the two groups were evident as early as two years after diagnosis. Compared to the patients without hearing loss, patients with the condition generated nearly 26 percent more in total health care costs within two years, a gap that widened to 46 percent by 10 years, amounting to $22,434 per individual ($20,403 incurred by the health plan, $2,030 by the individual in out-of-pocket costs). Johns Hopkins Bloomberg School of Public Health News
Phase 2 trial shows chikungunya vaccine to be safe, immunogenic

6 November - Results from a phase 2 trial of a live-attenuated, measles-vectored chikungunya vaccine (MV-CHIK) showed the vaccine to be safe, well-tolerated, and immunogenic, according to a study published yesterday in The Lancet that did not assess efficacy. ... According to the trial results, all participants in the MV-CHIK treatment groups produced neutralizing antibodies after one or two immunizations.

Skin cancer deaths soar for men in developed nations

4 November - Skin cancer deaths among men have soared in wealthy nations since 1985, with mortality rates among women rising more slowly or even declining, researchers have told a medical conference in Glasgow. Reasons for the discrepancy between sexes are unclear but evidence suggests men are "less likely to protect themselves from the sun" or heed public health warnings. ... In eight of 18 countries examined, men’s skin cancer death rates had increased in the past 30 years by at least 50%. In two nations – Ireland and Croatia – it roughly doubled. Also seeing a sharp jump were Spain and Britain (70%), The Netherlands (60%), as well as France and Belgium (50%). In the United States, which was not included in the study, male melanoma mortality went up by about 25%, according to CDC statistics.

These flatworms can regrow a body from a fragment. How do they do it and could we?

6 November – ... [Nelson] Hall and researchers around the world are hard at work trying to understand how most of a group of flatworms called planarians can use powerful stem cells to regenerate their entire bodies, an ability humans can only dream of. When we suffer a severe injury, the best we can hope for is that our wounds will heal. ... Key to planarians’ regenerative ability are powerful cells called pluripotent stem cells, which make up one-fifth of their bodies and can grow into every new body part. Humans only have pluripotent stem cells during the embryonic stage, before birth. After that, we mostly lose our ability to sprout new organs.

Watch tiny robots swim through an eyeball to deliver medicine

7 November - Although the mere thought of a swarm of microrobots burrowing into an eyeball is enough to make some people squirm, scientists believe tiny, controllable delivery vehicles could be the future of eye medicine. Now, researchers have developed a tiny, rotini-shaped spiral that could one day be deployed in the thousands for targeted drug
delivery. ... [S]cientists used nanoscale 3D printing to create spiral-shaped robots small enough to pass through the dense jelly known as the vitreous humor that makes up most of the eyeball. The researchers added a slippery coating and magnetic materials so they could propel the microbots through the eye using a magnetic field. The scientists then collected pig eyes from a slaughterhouse, injected a solution containing about 10,000 bots into each eye. ... Imaging showed the swarm successfully reached the retina in less than 30 minutes, about 10 times faster than letting similar-size particles diffuse through the eye. *Science*

INFLUENZA

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AFHSB: DoD Seasonal Influenza Surveillance Summary

For Week 43:

- NORTHCOM: Influenza activity was minimal to low for NORTHCOM, with the exception of Oregon and Massachusetts, which had high activity.
- EUCOM: Influenza activity remained minimal across EUCOM.
- PACOM: Influenza activity remained minimal across PACOM.
- CENTCOM and AFRICOM: Influenza activity was minimal in CENTCOM locations with available data with the exception of Afghanistan, which increased from low to high activity.
- SOUTHCOM: Influenza activity was minimal in Honduras for week 43.

DHA - Armed Forces Health Surveillance Branch

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

2018-2019 Influenza Season Week 43 ending October 27, 2018: Influenza activity in the United States remains low, although small increases in activity were reported. Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continue to co-circulate, with influenza A(H1N1)pdm09 viruses reported most commonly by public health laboratories during the most recent three weeks.

- Viral Surveillance: Influenza A viruses have predominated in the United States since the beginning of July. The percentage of respiratory specimens testing positive for influenza in clinical laboratories was low.
- 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: Three influenza-associated pediatric deaths were reported to CDC. One occurred during the 2018-2019 season and two occurred during the 2017-2018 season. *CDC*
ECDC: Flu News Europe

Weeks 43/2018 (22–28 October 2018)

- Influenza activity was low throughout the European Region.
- Influenza viruses were detected sporadically in specimens from persons with respiratory illness presenting to medical care.
- Both influenza A and B type viruses were detected at low numbers.
- For week 43/2018, data from the 23 countries or regions reporting to the EuroMOMO project indicated all-cause excess mortality to be at expected levels for this time of the year. European Center for Disease Prevention and Control/WHO

NHRC: Operational Infectious Diseases - Weekly Surveillance Report

1 November – For Week 3FY19, febrile respiratory illness surveillance data among military recruit, DoD beneficiary, and U.S.-Mexico border (CDC-BIDS) populations indicated 53 positive samples out of 88 received.

- Military Recruits – 20 samples received
- DoD Beneficiaries – 48 samples received
- CDC Border Infectious Disease Surveillance – 20 samples received

Naval Health Research Center

USAFSAM & DHA: DoD Global Respiratory Pathogen Surveillance Program

During 14 - 27 October (Surveillance Weeks 42 & 43), a total of 378 specimens were collected and received from 56 locations with influenza-like illness (ILI). Results were finalized for 375 specimens from 56 locations.

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U.S. Air Force School of Aerospace Medicine & Defense Health Agency
Food safety practices and behaviors at restaurants target of 10-year FDA study

8 November - Findings from the 84-page initial phase of a 10-year study evaluating trends in food preparation practices and employee behaviors that contribute to foodborne illness outbreaks in fast-food and full-service restaurants were released Wednesday by the Food and Drug Administration (FDA). ... “Of the food safety behaviors and practices investigated in this study, restaurants had the best control over ensuring no bare hand contact with ready-to-eat foods and cooking raw animal foods to their required temperatures, FDA’s statement said. “The study showed there remains a need to gain better control over employee handwashing and proper temperature control of foods that require refrigeration (cold holding of foods).” Food Safety News

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More confirmed ill in outbreak linked to fresh cucumbers; no recall yet

5 November - As the patient count continues to increase, investigators in Canada are looking for clues in an ongoing *Salmonella* Infantis outbreak health officials say is linked to long English cucumbers. The Public Health Agency of Canada went public with information about the outbreak on Oct. 19, reporting 45 people across five provinces had been confirmed infected. As of Nov. 2, the agency reported another five people have been confirmed sick. ... Ten of the outbreak patients have had symptoms so severe that they had to be admitted to hospitals. No deaths have been confirmed. People who have been confirmed as part of the outbreak range in age from 1 year to 92 years old. The majority, 58 percent, are female. Food Safety News

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Penn State researchers find farmers markets’ food safety inadequate; *E. coli* and *Listeria* abound

2 November - Many vendors at farmers markets take inadequate precautions to prevent the spread of foodborne illness, and they should be trained to reduce food-safety risks, according to Penn State researchers who completed the final phase of an innovative five-year study. ... Specifically, vendors were found to demonstrate insufficient or high-risk behaviors in the areas of hand washing, personal hygiene and cross-contamination. Notably, researchers found that the use of disposable gloves at Pennsylvania farmers markets remains low, even among vendors who sell unpackaged, ready-to-eat foods. Food Safety News

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Regulators investigate *Salmonella* infections linked to Conagra's cake mixes

7 November - U.S. health regulators said ... they were investigating Conagra Brands Inc's facility that makes cake mixes after a sample of the product that contained *Salmonella Agbeni* matched the strain that had infected five people. Conagra on Monday had recalled four varieties of the cake mix after officials in Oregon found *Salmonella Agbeni* in a box of Duncan Hines Classic White Cake Mix. The U.S. Food and Drug Administration and the Centers for Disease Control and Prevention (CDC) are investigating five illnesses in three states to determine if they are linked with recently recalled Duncan Hines cake mixes.

Reuters

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Serology study finds 2nd human H7N2 avian flu case in 2016 cat outbreak

7 November - A serological survey of shelter workers exposed to cats infected in an outbreak of low-pathogenic H7N2 avian influenza in New York City in 2016 found one additional human case, bolstering evidence of cat-to-human transmission. ... The outbreak was first reported at a municipal animal shelter, following the detection of the H7N2 virus in a cat with severe pneumonia that had to be euthanized. H7N2 had never been reported in cats before, and widespread transmission followed among cats at two more of the city's animal shelters. The spread of the virus raised concerns about possible human infections in shelter workers, and screening tests by the New York City health department confirmed an infection in one person, a veterinarian who had helped obtain respiratory samples from cats.

CIDRAP News Scan (third item)

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WELLNESS

Airman mom of 2 pumps breast milk while completing Ironman 70.3

8 November - A 34-year-old active duty Air Force Airman nabbed an Ironman 70.3 personal record last month — and even found time to pump breast milk during the run portion of the race. ... Jaime Sloan, who gave birth to her second child in March, had initially planned to use her breast pump during a brief stop, but realized after completing the 56-mile cycling portion that she was pacing to achieve a personal best. "By the time I got off the bike I knew I needed to pump," Sloan [said.] "But I was also looking at a personal record because I had had a really awesome bike ride. I just thought, 'I'm going to do it on my run'.”
Sloan, who worked pumping into her training schedule, said she worried about potential disqualification due to Ironman's no nudity policy and was using a cloth over her top, but that she received positive reactions from other racers. *Fox News*

**Amid record STD rates, doctors treat patients' partners sight unseen**

5 November - If patients return to Dr. Crystal Bowe soon after taking medication for a sexually transmitted infection, she usually knows the reason: Their partners have re-infected them. "While you tell people not to have sex until both folks are treated, they just don't wait," she said. "So they are passing the infection back and forth." That's when Bowe, who practices on both sides of the North and South Carolina border, does something doctors are often reluctant to do: She prescribes the partners antibiotics without meeting them. Federal health officials have recommended this practice, known as expedited partner therapy, for chlamydia and gonorrhea since 2006. *CNN*

**A shocking number of U.S. women still die of childbirth. California is doing something about that.**

4 November - Over the past three decades, the world has seen a steady decline in the number of women dying from childbirth. There has been a notable outlier: the United States. Here the maternal mortality rate has been climbing. ... But that trend has been reversed in dramatic fashion in one state: California. The state Department of Public Health calculates that between 2006 and 2013, California lowered its maternal mortality rate by 55 percent from 16.9 to 7.3 deaths for every 100,000 live births. ... California has made a difference in part by focusing narrowly on problems that arise during labor and delivery, using data collection to quickly identify deficiencies (such as failing to have the right supplies on hand or performing unnecessary Caesarean sections) and training nurses and doctors to overcome them. *The Washington Post*

**E-therapy may help ease insomnia**

2 November - People with insomnia who receive a digitized version of cognitive behavioral therapy (CBT) as part of their treatment may find more symptom relief than those who only receive tips to improve their sleep routines, a recent experiment suggests. Researchers randomly assigned 1,700 insomnia patients to receive either digital CBT or so-called sleep hygiene education designed to improve bedtime routines and encourage avoidance of substances like caffeine and alcohol that can interfere with sleep. The CBT group used the online Sleepio program and an associated iOS app, which offered a series of 20-minute therapy sessions people could access for up to 12 weeks. Patients reported more improvement in their insomnia symptoms after 4, 8 and 24 weeks with digital CBT than they did with sleep hygiene education, the study team reports in JAMA Psychiatry. *Reuters*
Fructans, not gluten, might cause wheat sensitivity. Here’s what you need to know.

6 November - Americans love to designate dietary devils. MSG. Fat. Carbs. Gluten. The latest food to be nominated for devilhood is fructans. And the focus on them came about, in part, because of our obsession with gluten. Here’s how: We know that many people who follow a gluten-free diet don’t need to for medical reasons, such as having celiac disease. Yet some insist they aren’t going gluten-free because it’s trendy — they’re going gluten-free because it makes them feel better. Many researchers believe these people who think they can’t tolerate gluten are actually sensitive to fructans. Fructans are a type of carbohydrate composed of chains of fructose, the simple sugar found in honey and fruit. Americans encounter fructans most commonly in wheat and onions, but they are also found in rye, oats, barley, artichokes, asparagus, leeks, garlic and lettuce. The Washington Post

'Meat taxes' would save many lives and cut health care costs, study says

7 November - ... [A] global "meat tax" could save 220,000 lives and cut health care bills by $41 billion each year, according to a new study. The numbers are based on evidence that links meat consumption to increased risk of heart disease, cancer, stroke and diabetes. ... Researchers concluded that the UK government should introduce a tax of 79% on processed meat such as bacon, and 14% on unprocessed meat such as steak. In the US these numbers would be 163% and 34% respectively. "The tax is higher in the US due to an inefficient health system that wastes a lot of money," said [Marco] Springmann. They also calculated the projected impact of a so-called meat tax on death rates due to chronic disease. With reduced consumption of red meat, the study, published on November 6, claims there would be 220,000 fewer deaths from chronic disease per year around the world. CNN

More adults and children are using yoga and meditation

8 November - Over the past five years, more Americans of all ages are rolling out their yoga mats and meditating. A large nationally representative survey shows that the number of American adults and children using yoga and meditation has significantly increased over previous years and that use of chiropractic care has increased modestly for adults and held steady for children. ... Survey highlights for adults:

- Yoga was the most commonly used complementary health approach among U.S. adults in 2012 (9.5 percent) and 2017 (14.3 percent). The use of meditation increased more than threefold from 4.1 percent in 2012 to 14.2 percent in 2017.
- The use of chiropractors increased from 9.1 percent in 2012 to 10.3 percent in 2017. NIH
Older fathers more likely to have babies with health problems

7 November - Babies of older fathers are at greater risk of premature birth, low birth weight and other neonatal problems, a new study reports. Mothers may also be affected: Those with older partners were more likely to have gestational diabetes, probably because older paternity is associated with changes in the placenta. Compared with babies of fathers 25 to 34, those whose fathers were 45 to 54 had a 15 percent increased risk for premature birth, and an 18 percent increased risk for seizure. They were 14 percent more likely to be admitted to a neonatal intensive care unit, and 9 percent more likely to need antibiotics. Babies of fathers older than 55, although there were few in the study, were at even greater risk. The New York Times

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Pharmacies still blocking U.S. teens looking for emergency contraception

2 November - Teens seeking to buy emergency contraception at pharmacies continue to face significant roadblocks, a new U.S. study suggests. Researchers checking on the accessibility of the “morning after pill” at pharmacies in four Southwestern states found that just 28 percent made it simple and straightforward for teens to purchase the emergency contraception. National chains, such as Walgreens or CVS, were significantly more likely than regional chains or individually-owned retailers to carry the morning-after pill. Reuters

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Sit-stand desks cut daily sitting time, may help engage workers

6 November - Sit-stand desks reduce daily sitting time and may improve job performance and work engagement, a British study suggests. Researchers who studied 146 National Health Services employees found that after a year of using sit-stand desks, in combination with a coaching program, workers’ sitting time was cut by more than an hour a day. Furthermore, sit-stand desk users had improvements in job performance, job engagement and recovery from occupational fatigue. The intervention group also showed improvements in daily anxiety, and quality of life, the authors report. They also had fewer musculoskeletal complaints. Reuters

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Sleep: The new frontier in cardiovascular prevention

3 November - Getting less than 6 hours of sleep nightly on a regular basis or waking up multiple times was independently associated with increased risk of subclinical atherosclerosis in the Spanish PESA study, Fernando Dominguez, MD, reported at the annual congress of the European Society of Cardiology. Moreover, a graded response was evident in PESA (Progression of Early Subclinical Atherosclerosis): The more times an
individual typically awoke per night, the greater the number of atherosclerotic carotid or femoral artery territories documented on three-dimensional vascular ultrasound. MDedge

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**Tobacco product use among adults — United States, 2017**

9 November - Although cigarette smoking among U.S. adults has declined considerably, tobacco products have evolved in recent years to include various combustible, non-combustible, and electronic products. In 2017, an estimated 47.4 million U.S. adults (19.3%) currently used any tobacco product. Among current tobacco product users, 86.7% (41.1 million) smoked combustible tobacco products, and 19.0% (9.0 million) used two or more tobacco products. *Morbidity and Mortality Weekly Report*

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**USAFRICOM**

Democratic Republic of the Congo: CDC director warns that Congo’s Ebola outbreak may not be containable

5 November - Centers for Disease Control and Prevention Director Robert Redfield said Monday that the Ebola outbreak in conflict-ridden Congo has become so serious that international public health experts need to consider the possibility that it cannot be brought under control and instead will become entrenched. ... The current outbreak is entering its fourth month, with nearly 300 cases, including 186 deaths. If Ebola becomes endemic in substantial areas of North Kivu province, in northeastern Congo, “this will mean that we've lost the ability to trace contacts, stop transmission chains and contain the outbreak,” said Tom Inglesby, director of the Johns Hopkins Center for Health Security.

The Washington Post

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Democratic Republic of the Congo: DRC reports 3 Ebola cases in high-risk village, 2 others

6 November - The number of Ebola cases confirmed in the Democratic Republic of Congo (DRC) grew by 5 today, including 3 from a security red zone in Kalunguta health zone, the country's health ministry said today in its daily update. Meanwhile, high-level talks are under way between global health officials in the DRC to see what more can be done to shore up the security situation in the outbreak zone and what other resources the country needs to battle the virus. The DRC's health ministry said several Ebola infections have been identified in a Mayi-Mayi village in Kalunguta health zone, located in a red zone, following the escape of a patient from Beni who fled to the village to evade response teams.

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Ethiopia: Yellow fever kills 10 in Ethiopia, WHO ships 1.45 million vaccines

5 November - The World Health Organization is releasing more than a million doses of yellow fever vaccine from its emergency stockpile after the deadly mosquito-borne disease killed 10 people in southwestern Ethiopia, a WHO report said on Monday. The outbreak was confirmed in Wolaita Zone of the Southern Nations, Nationalities, and Peoples’ Region and has been traced back to a patient who fell ill on Aug. 21. It has caused 35 suspected cases of the disease. “This outbreak is of concern since the population of Ethiopia is highly susceptible to yellow fever due to absence of recent exposure and lack of large-scale immunization,” the WHO report said. Reuters

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Uganda: Uganda vaccinates at-risk health workers as Ebola spreads in Congo

6 November - Uganda is to administer an experimental Ebola vaccine for health workers in high-risk areas bordering the Democratic Republic of the Congo. The vaccination programme launches on Wednesday with support from the World Health Organization, targeting 2,000 frontline workers in districts close to DRC’s North Kivu province, which is currently experiencing an outbreak of the deadly virus. Uganda is the first country in the world to give the vaccine without an active outbreak of the disease, but is judged to be at very high risk. The Guardian

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Zimbabwe: Sleeping sickness vector, the tsetse fly, and temperature increases in Zimbabwe

3 November - A new study, based on 27 years of data from Mana Pools National Park in Zimbabwe, suggests that temperature increases over the last three decades have already caused major declines in local populations of tsetse flies. This analysis, published in the journal PLOS Medicine this week, provides a first step in linking temperature to the risk of sleeping sickness in Africa. Outbreak News Today

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USCENTCOM

Saudi Arabia: MERS infects another in Riyadh, Saudi Arabia

7 November - Saudi Arabia’s health ministry reported one new MERS-CoV case involving a 54-year-old man from Riyadh, according to a Saudi Ministry of Health (MOH) report today
for epidemiologic week 45. The man is hospitalized for his MERS-CoV (Middle East respiratory syndrome coronavirus) infection, and the investigation revealed he didn’t have contact with camels and didn’t contract the illness from another sick patient. According to a recent update from the World Health Organization, since 2012 it has received 2,262 reports of lab-confirmed MERS-CoV cases, at least 803 of them fatal. Saudi Arabia has been by far the hardest-hit country. CIDRAP News Scan (first item)

Yemen: Miscarriages and malnourishment - The perils of pregnancy in Yemen

3 November – ... Due to [Yemen's] failing healthcare system, owing to the protracted war, expectant mothers do not have proper medical support. Specialised doctors have fled Taiz, Sanaa and medical centres because they have not received salaries for more than two years. With or without financial resources, women seek treatment in understaffed hospitals and are at the mercy of unqualified medics. Widespread corruption, disease and relentless air raids, in addition to increasing pressure on existing staff, have compelled hospitals to turn to new graduates for help. But they are technically unlicensed doctors. Al Jazeera

USEUCOM

Europe: Superbugs kill 33,000 in Europe each year, says study

6 November - A study by the European Centre for Disease Prevention and Control (ECDC) estimates that around 33,000 people in the EU die each year after becoming infected with antibiotic-resistant bacteria. The analysis ... warned that the burden of these pathogens is similar to HIV, flu and tuberculosis combined. ... [Researchers] tracked a significant increase in the toll from 2007, when there were around 25,000 deaths. Infants and the elderly were most at risk, with three quarters of infections contracted in hospitals and health clinics. The researchers also recorded vast differences between European countries. DW

Finland: One third of ticks in Finland carry at least one disease pathogen

2 November - Around a third of the ticks in Finland - mostly found in the south - carry at least one pathogen. Two percent of the persistent arachnids carry several disease-causing agents, researchers at Turku University said. About 30 percent of common ticks and 24 percent of taiga tick populations have been found to carry one disease pathogen. Common ticks more commonly carry several disease causing pathogens than taiga ticks, according to the researchers. The most common pathogen found in the ticks was *Borrelia burgdorferi*, the
bacterial species that causes Lyme disease in humans ... and was found in 17 percent of the ticks at the university’s growing tick database bank. Yle Uutuset
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France: France bans crop pesticide metam sodium after people fall ill

5 November - France’s health safety watchdog Anses ordered a ban on products containing metam sodium, widely used in vegetable farming, on Monday after several people fell ill, saying it poses a risk to human health and the environment. The discovery of respiratory intoxications in recent weeks among farmers or farm neighbors following the use of metam sodium-based products in western France had prompted the government to temporarily ban its use pending an Anses opinion. “After reassessment, Anses concludes that all uses represent a risk to human health and the environment,” ... the watchdog said in a statement. Reuters
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Indonesia: Indonesian ‘vaccine fatwa’ sends measles immunization rates plummeting

7 November - ... Millions of parents around Indonesia have eschewed the [measles-rubella (MR)] vaccine in recent months, after Islamic clerics declared the MR vaccine “haram,” or forbidden under Islamic law because pig components are used in its manufacturing. Vaccine coverage has plummeted as a result, alarming public health experts who worry that the world's largest Muslim-majority country could see new waves of measles and more miscarriages and birth defects resulting from rubella infections during pregnancy. ... [T]he health ministry in August lobbied the central MUI to issue a fatwa ... declaring the vaccine halal. Instead, the council declared the MR vaccine haram, based on its ingredients and manufacturing process. ... MUI took pains not to block the vaccination campaign. It ruled that parents could still have their children vaccinated, given the need to protect public health. Science
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Malaysia: Malaysia is ground zero for the next malaria menace

4 November - ... Monkey malaria, discovered in the early 1900s, became a public health concern only in the last 15 years. Before that, scientists thought it was extremely rare for monkey malaria parasites, of which there are at least 30 species, to infect humans. Yet since 2008, Malaysia has reported more than 15,000 cases of P. knowlesi infection and about 50 deaths. Infections in 2017 alone hit 3,600. People infected with monkey malaria are found
across Southeast Asia near forests with wild monkeys. In 2017, another species of monkey malaria parasite, *P. cynomolgi*, was found in five Malaysians and 13 Cambodians. And by 2018, at least 19 travelers to the region, mostly Europeans, had brought monkey malaria back to their home countries. The rise of monkey malaria in Malaysia is closely tied to rapid deforestation, says Kimberly Fornace. Science News

**Thailand: Dengue cases top 70,000 in Thailand in 1st 10 months**

4 November - In a two week period, Thailand health officials reported an additional 4,000 dengue fever cases and eight deaths. According to the Thailand Bureau of Epidemiology, as of October 29, a total of 70146 cases were reported from 77 provinces. In addition, 92 dengue fatalities have been reported this year-to-date. ... Chikungunya cases have risen to 553 cases, an increase in some 175 cases during the month of October. The burden of chikungunya cases remain in the southern areas of the country, in particular, Satun province. Outbreak News Today

**Vietnam: Vietnam, U.S. complete cleanup of toxic chemical from airport**

7 November - Vietnam and the United States said Wednesday they have finished the cleanup of dioxin contamination at Danang airport caused by the transport and storage of the herbicide Agent Orange during the Vietnam War. The 30 hectares (74 acres) of land cleansed of the toxic chemical were handed over to Vietnam at a ceremony. Vice Defense Minister Nguyen Chi Vinh praised the U.S. government's involvement in the cleanup. ... Large amounts of Agent Orange, which contains dioxin, were stored at Danang airport during the war and sprayed by U.S. forces to defoliate the countryside and deny communist fighters jungle cover. Vietnamese still suffer from the effects of the spraying. Military Times

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**Canada: People in Canada have good health, are living longer - Global Burden of Disease Study trends**

5 November - Data from the Global Burden of Disease Study shows that the overall health of Canadians is good and is consistent with other similar countries, and people are living longer with diseases, according to a study in *CMAJ* (*Canadian Medical Association Journal*). ... The study, looking at disease trends from 1990 to 2016, shows that the leading causes of death and disability were noncommunicable diseases, including cancer, cardiovascular diseases, musculoskeletal diseases, and mental health and substance use disorders, which, in total, made up 56% of all disability-adjusted life years. Science Daily
U.S.: DEA releases 2018 drug threat assessment

6 November - The Drug Enforcement Administration’s acting administrator, Uttam Dhillon, announced results of the 2018 National Drug Threat Assessment on Nov. 2. The 164-page document outlines the threats posed to the United States by domestic and international drug trafficking and the abuse of illegal drugs. ... Controlled prescription drugs remain responsible for the largest number of overdose deaths of any illicit drug class since 2001. These drugs are the second most commonly abused substance; traffickers are now disguising other opioids as controlled prescription drugs to gain access to this market.

U.S.: FDA approves powerful opioid despite fears of more overdose deaths

2 November - The Food and Drug Administration approved a powerful opioid Friday for use in health-care settings, rejecting criticism from some of its advisers that the drug would inevitably be diverted to illicit use and cause more overdose deaths. The opioid is five to 10 times more potent than pharmaceutical fentanyl. A tiny pill that is just three millimeters in diameter, it is likely to worsen the nation’s drug crisis, according to critics and the head of the FDA’s advisory committee on painkillers. FDA Commissioner Scott Gottlieb issued an unusual statement saying he would seek more authority for the agency to consider whether there are too many similar drugs on the market, which might allow the agency to turn down future applications for new opioid approvals.

U.S.: Gunshot wounds send 8,300 kids and teens to ERs every year

3 November - The number of children and teens treated in hospital emergency rooms for gunshot wounds averages 8,300 a year in the United States, according to new research from Johns Hopkins Medicine. About 86 percent of these gunshot victims are male, with the highest incidence among boys ages 15 to 17. Most of the injuries — 49 percent — were caused by assault or intentional shooting. Another 39 percent were considered unintentional injuries and 2 percent involved suicide attempts. Overall, 6 percent of these youths died in the ER or while hospitalized because of their gunshot wounds.

U.S.: Immigrants arrive with flourishing gut microbes. Then America’s diet trashes them.

2 November - ... A study published this week in the journal Cell follows multi-generation immigrants from Southeast Asia to the United States. As they moved, their microbes
responded. Once in the United States, the immigrants’ gut diversity dropped to resemble the less-varied microbiomes in European Americans. At the same time, obesity rates spiked. 

... In the United States, immigrants in the study ate foods richer in sugars, fats and protein. Microbiomes changed within months of moving. ... Obesity rates among many of the study immigrants increased sixfold. Those who became obese also lost an additional 10 percent of their diversity. The Washington Post

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U.S.: Reps. Stewart and Delaney introduce Suicide Prevention Analytics Act

1 November - On Oct. 30, Utah Republican Rep. Chris Stewart and Maryland Democratic Rep. John K. Delaney introduced H.R. 7103, the Suicide Prevention Analytics Act of 2018. This bipartisan legislation aims to address the gap in data reporting as it relates to self harm and suicidal behavior. This pilot program will help improve the compilation and sharing of near real-time suicidal behavior information among care providers, prevention experts, and the Centers for Disease Control and Prevention. Emergency room medical practitioners record suicidal and self-harm behaviors using standard medical data recording processes, including privacy regulations and safeguards. However, reports on suicidal behavior can take one to two years to compile. By enabling near real-time data sharing, community care providers can respond more quickly to changes in trends, deliver more timely prevention resources, and track the success of such resources. The Independent

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USSOUTHCOM

The Americas: PAHO on malaria - ‘Efforts must be stepped-up where incidences of the disease have increased’

7 November - Paraguay was certified as having eliminated malaria from its territory in June of this year and several others—Argentina, Belize, Costa Rica, Ecuador, El Salvador, Mexico and Suriname are potentially on their way to achieving elimination by 2020. Other countries, especially Venezuela, have recorded an increase in the number of cases of malaria, which puts at risk achievement of the goals to reduce the number of cases, and eliminate the disease in the region by 2030. The Pan American Health Organization (PAHO) urges countries of the region to take urgent action to halt the increase in cases, maintain achievements, and free the continent of malaria. Outbreak News Today

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