NOTICE:
There will be no Army Public Health Weekly Update next week. Publication will resume on 20 October 2017.

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New analysis highlights the disproportionate impact of Alzheimer's on veterans

2 October - A new UsAgainstAlzheimer report, Veterans and Alzheimer's: Meeting the Crisis Head On, shows that Alzheimer's disease is both an urgent health care challenge among older veterans and a long-term threat to younger veterans. Each group faces unique Alzheimer's risk factors tied directly to their service, including post-traumatic stress, depression, traumatic brain injury, successive concussion syndrome, and blast-induced neurotrauma. ... According to the report, age is the top known risk factor for Alzheimer's, and that risk increases greatly after age 65. Nearly 50 percent of veterans are age 65 or older and therefore at heightened risk for Alzheimer's, compared to 15 percent of the general population. Furthermore, studies show that older veterans who have suffered a traumatic brain injury are 60 percent more likely to develop dementia. Twenty-two percent of all combat wounds in Afghanistan and Iraq were brain injuries, nearly double the rate seen during Vietnam – increasing these younger veterans' lifetime Alzheimer's risk.

PR Newswire

Routine screening for antibodies to human immunodeficiency virus, civilian applicants for U.S. Military Service and U.S. Armed Forces, active and reserve components, January 2012–June 2017

September 2017 - This report contains an update through June 2017 of the results of routine screening for antibodies to the human immunodeficiency virus among civilian applicants for military service and among members of the active and reserve components of the U.S. Armed Forces. During the surveillance period, annual seroprevalences among civilian applicants for military service peaked in 2015 (0.33 per 1,000 tested) and then decreased slightly in 2016. Seroprevalences among Marine Corps reservists, Navy active component service members, and Navy reservists also peaked in 2015. Overall (1 January 2012 through 30 June 2017) seroprevalences were highest for Army reservists, Army National Guard members, Navy reservists, and Navy active component members. Among active and reserve component service members, seroprevalences continue to be higher among males than females. Medical Surveillance Monthly Report

Medical Surveillance Monthly Report
Health experts zero in on camels to fight deadly MERS virus

1 October - The fight against the deadly Middle East Respiratory Syndrome (MERS), which has killed at least 722 people over the past five years, is honing in on its target: camels. MERS coronavirus (MERS-CoV), a member of a virus family ranging from the common cold to Severe Acute Respiratory Syndrome, appears to have emerged in humans in Saudi Arabia in 2012, but has now been traced back in camels to at least 1983. Almost all the outbreaks so far originated in the Arabian Gulf, but MERS-CoV could infect humans wherever there are one-humped dromedary camels. … A dozen human vaccines are in development, with vaccine coalition CEPI expected to announce soon which it will fund. But the key to stopping human deaths is controlling MERS in camels. Two camel vaccines have been developed, but only one, developed by the Jenner Institute, is in field trials. Reuters

Multiple research approaches are key to pandemic preparedness, NIAID officials say

5 October - … A new article by Anthony S. Fauci, M.D., director of the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health, and colleagues examines the multifaceted nature of effective [pandemic] preparedness and the particular role that biomedical research plays. Specifically, the article examines three approaches to pandemic preparedness: pathogen-specific work, platform-based technologies, and prototype-pathogen efforts. Using vaccine development as an example, the authors conclude that a combination of all three approaches will lead to the best preparedness for future pandemics. NIH

NIH researchers uncover drain pipes in our brains

3 October - By scanning the brains of healthy volunteers, researchers at the National Institutes of Health saw the first, long-sought evidence that our brains may drain some waste out through lymphatic vessels, the body’s sewer system. The results further suggest the vessels could act as a pipeline between the brain and the immune system. “We literally watched people’s brains drain fluid into these vessels,” said Daniel S. Reich, M.D., Ph.D., senior investigator at the NIH’s National Institute of Neurological Disorders and Stroke (NINDS) and the senior author of the study published online in eLife. “We hope that our results provide new insights to a variety of neurological disorders.” NIH

Partners receive $4.25 million to develop universal surveillance platform for disease outbreaks

28 September - Tasso, Inc. (Tasso), Ceres Nanosciences (Ceres), George Mason University
(Mason), and the United States Army Medical Research Institute of Infectious Diseases (USAMRIID) today announced the commencement of an $11.7 million program, funded by the Defense Threat Reduction Agency (DTRA), to develop a reliable, safe, and simple universal surveillance platform for infectious disease outbreaks. During this multi-year program, which will be initiated with $4.25 million in funding from DTRA, Ceres will integrate its Nanotrap® particle technology, which can capture, concentrate, and preserve pathogens and other biomolecules, into Tasso’s HemoLink™ device for simple and painless collection of large-volume capillary blood samples in remote environments. EurekAlert

Small wonder: Nanoparticles help fight drug-resistant bacteria

4 October - A potential new weapon to fight multidrug-resistant bacteria comes in a very small package. How small? Try 10,000 times smaller than the thickness of a single strand of human hair. That’s the approximate size of quantum dots—nanoparticles made of semiconducting materials that, when illuminated with light, produce a biochemical reaction in bacteria that re-establishes the power of antibiotics against multidrug-resistant (MDR) pathogens. CIDRAP

Study bolsters Lone Star tick as vector for human Bourbon virus cases

4 October - An analysis of Lone Star ticks in an area of Missouri not far from where the first Bourbon virus infection was reported in 2014 in a Kansas resident suggests that the ticks are a vector of the virus. A team from the US Centers for Disease Control and Prevention and Missouri Western State University reported their findings yesterday. Their retrospective analysis included nearly 40,000 ticks that had been collected in the spring and summer of 2013 from six sites in northwestern Missouri as part of surveillance for Heartland virus, another tickborne disease. CIDRAP News Scan (third item)

Tdap vaccine in pregnancy protects infants

29 September - In 2012, the US Advisory Committee on Immunization Practices (ACIP) began recommending a Tdap (tetanus, diphtheria, and pertussis) vaccine be administered from 27 to 36 weeks’ gestation in each pregnancy. The rationale was that the inactivated vaccine would pass on maternal antibodies for pertussis, or whooping cough, a serious illness in infants. Maternal antibodies would be protective until the baby received its first of Tdap, at 2 months of age. ... [A] study published yesterday in Clinical Infectious Diseases ... shows that 78% of babies 2 months old and younger were protected from pertussis if their mothers received the Tdap vaccine in the third trimester of pregnancy. ... UK data have shown 90% protection rates in newborns, but this is the first multistate, multicenter US study to demonstrate that the Tdap recommendation is useful and effective. And protection equaled UK rates when looking at severe pertussis cases. CIDRAP
ZIKA VIRUS

Monoclonal antibodies against Zika show promise in monkey study

5 October - Using blood samples from an individual previously infected with Zika virus, scientists funded by the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health, have developed an antibody-based Zika virus therapeutic that protected monkeys from infection. Because monoclonal antibodies are generally safe, they believe that this antibody cocktail might be appropriate for uninfected pregnant women; because the antibodies will likely cross the placenta, the researchers hope that administration during pregnancy may protect both the pregnant woman and the fetus from Zika virus. The investigators are hoping to test this concept by pursuing studies in people.

NIH

MRI, ultrasound found beneficial in prenatal Zika screening

4 October - Findings from two new studies today shed more light on screening tests used to detect Zika complications in fetuses during affected pregnancies, one suggesting that magnetic resonance imaging (MRI) should be added to standard ultrasound and the other adding more evidence that ultrasound is useful for flagging prenatal problems.

CIDRAP

Zika vaccine shows promise in early human trial

4 October - A DNA-based Zika vaccine from Inovio Pharmaceuticals Inc and South Korea's GeneOne Life Science Inc induced anti-Zika immune responses in an early stage human trial, U.S. researchers reported on Wednesday. Unlike conventional vaccines, which often use inactivated or killed versions of a virus, the Inovio-GeneOne shot is a synthetic vaccine made by reproducing sections of the Zika virus genome in a lab, and then loading them onto a ring of genetic material called a plasmid. This vaccine is then injected beneath the skin and followed up with a device that generates electrical impulses, creating small pores in cells that allow the DNA to pass into cells. After three doses of the Zika vaccine known as GLS-5700, all 40 healthy volunteers in the study developed Zika-specific antibodies. ... [B]lood from immunized study participants was injected into mice who were then exposed to Zika. Animals that had received the Zika-specific antibodies were protected.

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

For 2016-2017 Influenza Season Week 38 ending September 23, 2017:

- **Novel Influenza A Virus** - Thirty-two human infections with novel influenza A viruses were reported by two states (Delaware [1] and Maryland [31]). Fourteen of these viruses have been fully characterized and are influenza A (H3N2) variant (H3N2v) viruses; the remaining 18 viruses have tested presumptive positive for H3v at the Maryland public health laboratory and further confirmatory testing is being performed by CDC to characterize these viruses. All 32 patients reported exposure to swine at one of three agricultural fairs during the week preceding illness onset. ... Thirty of the 32 patients were children younger than 18 years and two patients were adults aged > 50 years. One of 32 patients was hospitalized but is improving.

- **Pneumonia and Influenza (P&I) Mortality Surveillance** - Based on National Center for Health Statistics (NCHS) mortality surveillance data available on September 28, 2017, 5.3% of the deaths occurring during the week ending September 9, 2017 (week 36) were due to P&I. This percentage is below the epidemic threshold of 6.0% for week 36. CDC

H7N9 flu changes worry experts

5 October - Flu experts are watching China uneasily these days after some unsettling changes in the H7N9 avian influenza A strain during the 2016-17 epidemic in that country. The fifth wave of the virus, which was first seen in humans in 2013, saw a “huge surge in cases,” the CDC’s Tim Uyeki, MD, told a symposium here at the annual IDWeek meeting, sponsored jointly by the Infectious Diseases Society of American (IDSA), the Pediatric Infectious Diseases Society (PIDS), the Society for Healthcare Epidemiology of America (SHEA), and the HIV Medicine Association (HIVMA). ... After the first year, Uyeki said, the case totals in following seasons were roughly stable or declining, but the fifth saw some 764 cases, almost half the cumulative total of 1,562 over all 5 years, according to the World Health Organization. But what worries the experts is not just the numbers. After 4 years of relative stability, the virus began to show changes during the most recent wave, including a newfound ability to escape vaccines and to resist antiviral drugs, Uyeki said. As well, the virus was seen in a greatly expanded territory and began -- for the first time -- to cause illness in the birds it infects. MedPage Today

NHRC: Operational Infectious Diseases - Weekly Surveillance Report

28 September - Febrile respiratory illness cases:

- Military Recruits - 20 positive of 47 tested
- CDC Border Infectious Disease Surveillance and Zika Surveillance - 29 positive of 46
Oxford team to test universal flu vaccine in world first

3 October - A seasonal flu vaccine that would be the first in the world to fight all types of the virus is to be tested in a two-year clinical trial involving more than 2,000 patients by researchers in Oxford. The so-called universal vaccine was developed by Oxford University’s Jenner Institute and Vaccitech, a spin-out biotech company founded by Jenner scientists. Reuters

WHO announces 3 candidate vaccine viruses for pandemic preparedness

29 September - The World Health Organization (WHO) advisory committee that reviewed the most recent influenza developments and recommended strains for the Southern Hemisphere’s 2018 flu season also looked at the newest genetic findings with zoonotic influenza viruses and recommended three new candidate vaccine viruses (CVVs). The action is part of ongoing work by the world’s influenza labs to have updated CVVs on hand in case a vaccine needs to be made to curb a pandemic threat to humans. The group proposed two new CVVs against variant H1 (H1v). … [V]accine advisors recommended a new CVV based on a 2017 H3N2v sample from Ohio. CIDRAP News Scan (first item)

WHO: Influenza Update

2 October - Influenza activity remained at low levels in the temperate zone of the northern hemisphere. High levels of influenza activity continued to be reported in the temperate zone of the southern hemisphere and in some countries of South and South East Asia. In Central America and the Caribbean, low influenza activity was reported in a few countries. Worldwide, influenza A(H3N2) viruses predominated. WHO

FDA tells bakery that 'love' is not an ingredient

4 October - As detailed in a letter to the owners of Nashoba Brook Bakery, the United States Food and Drug Administration (FDA) inspected their facilities and found a number of violations, such as conditions that may lead to contaminated food, which you can read about in the letter. But aside from these, one misbranding violation listed is particularly interesting: Your Nashoba Granola label lists ingredient "Love". Ingredients required to be declared on the label or labeling of food must be listed by their common or usual name [21
CFR 101.4(a)(1). "Love" is not a common or usual name of an ingredient, and is considered to be intervening material because it is not part of the common or usual name of the ingredient. Forbes

Food safety advocates: Don't mess with USDA

2 October - Critics within the government are raising alarms about the Trump Administration's plan to move a key food safety office from the USDA's public health division to a newly created trade office within the agency. The plan to shift work on international food safety matters to the trade office being supervised by Ted McKinney, a former executive with a veterinary medicine company, according to Politico. The website noted that current and former officials from the USDA and the FDA were warning "internally and publicly" about the move, which involves Agriculture department staff that manages U.S. participation in an international standard-setting and trade dispute panel known as Codex Alimentarius Commission. MedPage Today

More Cyclospora cases reported to the CDC

29 September - The US Centers for Disease Control and Prevention (CDC) today reported 23 more Cyclospora cases, raising the multistate total to 1,054, with many of the cases linked to infections in people who didn't travel and pointing to a suspected foodborne illness outbreak. Of the new cases, 14 patients didn't have a history of recent travel outside the United States, raising the foodborne illness outbreak portion of the total to 592 from 36 states, with Texas the hardest hit. The latest illness onsets were on Sep 13. So far no food vehicle has been identified. CIDRAP News Scan (third item)

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WELLNESS

How messing with our body clocks can raise alarms with health

2 October - Research that helped discover the clocks running in every cell in our bodies earned three scientists a Nobel Prize in medicine on Monday. ... “The clock regulates critical functions such as behavior, hormone levels, sleep, body temperature and metabolism.” We humans are time-keeping machines. And it seems we need regular sleeping and eating schedules to keep all of our clocks in sync. Studies show that if we mess with the body's natural sleep-wake cycle — say, by working an overnight shift, taking a trans-Atlantic flight or staying up all night with a new baby or puppy — we pay the price. Our blood pressure goes up, hunger hormones get thrown off and blood
sugar control goes south. We can all recover from an occasional all-nighter, an episode of jet lag or short-term disruptions. But over time, if living against the clock becomes a way of life, this may set the stage for weight gain and metabolic diseases such as Type 2 diabetes. NPR

NIAAA alcohol treatment navigator points the way to quality treatment

3 October - A new online resource is now available to help people recognize and find high quality care for alcohol use disorder, which affects more than 15 million adults in the United States. The Alcohol Treatment Navigator, designed by the National Institute on Alcohol Abuse and Alcoholism (NIAAA), part of the National Institutes of Health, is a comprehensive, yet easy-to-use tool to help individuals and their loved ones navigate the often-complicated process of choosing treatment for alcohol problems. With many treatment options available, the navigator makes the search easier by telling them what they need to know - and what they need to do -- to find appropriate, quality care. NIH

Switching to e-cigarettes could save 6.6 million American smokers: researchers

2 October - Up to 6.6 million early deaths in America might be averted over 10 years if smokers switched to e-cigarettes, and the nicotine delivery devices should be adopted as part of an "endgame for cigarette smoking", researchers said on Monday. In an analysis of potential health benefits of getting smokers to quit tobacco, the researchers found that those 6.6 million people who switched to vaping would live for a collective total of up to 86.7 million extra years. The findings "can help the (U.S.) Surgeon General and the public health community develop a strategy to reach the ‘endgame’ for cigarette smoking," the scientists said. "Old policies need to be supplemented with policies that encourage substituting e-cigarettes for the far more deadly cigarettes," added David Levy, who co-led the work at Georgetown University Medical Center in the United States. Reuters

This former surgeon general says there’s a ‘loneliness epidemic’ and work is partly to blame

4 October - ... Vivek H. Murthy, who became the U.S. surgeon general in late 2014 [has] added emotional well-being and loneliness to his list of big public health worries. ... Murthy treats loneliness like a public health crisis, and the workplace as one of the primary places where it can get better — or worse. "Our social connections are in fact largely influenced by the institutions and settings where we spend the majority of our time," Murthy said. ... "That includes the workplace." ... Murthy writes that ... “rates of loneliness have doubled since the 1980s.” ... “The reduction in life span [for loneliness] is similar to that caused by smoking 15 cigarettes a day, and it’s greater than the impact on life span of obesity. So if you think about how much we put into curbing tobacco use and obesity, compared to how much effort and resources we put into addressing loneliness, there’s no comparison.” The Washington Post

3 October - Overweight and obesity are associated with increased risk of at least 13 different types of cancer. Data from the United States Cancer Statistics for 2014 were used to assess incidence rates, and data from 2005 to 2014 were used to assess trends for cancers associated with overweight and obesity ... by sex, age, race/ethnicity, state, geographic region, and cancer site. ... In 2014, approximately 631,000 persons in the United States received a diagnosis of a cancer associated with overweight and obesity, representing 40% of all cancers diagnosed. Overweight- and obesity-related cancer incidence rates were higher among older persons (ages ≥50 years) than younger persons; higher among females than males; and higher among non-Hispanic black and non-Hispanic white adults compared with other groups. Incidence rates for overweight- and obesity-related cancers during 2005–2014 varied by age, cancer site, and state. Excluding colorectal cancer, incidence rates increased significantly among persons aged 20–74 years; decreased among those aged ≥75 years; increased in 32 states; and were stable in 16 states and the District of Columbia. Morbidity and Mortality Weekly Report

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USAFRICOM

Ghana: Obesity was rising as Ghana embraced fast food. Then came KFC.

2 October - ... Ghana, a coastal African country of more than 28 million still etched with pockets of extreme poverty, has enjoyed unprecedented national prosperity in the last decade, buoyed by offshore oil. Though the economy slowed abruptly not long ago, it is rebounding and the signs of new fortune are evident: millions moving to cities for jobs, shopping malls popping up and fast food roaring in to greet people hungry for a contemporary lifestyle. Chief among the corporate players is KFC, and its parent company, YUM!, which have muscled northward from South Africa ... Public health officials see fried chicken, french fries and pizza as spurring and intensifying a global obesity epidemic that has hit hard in Ghana — one of 73 countries where obesity has at least doubled since 1980. In that period, Ghana’s obesity rates have surged more than 650 percent, from less than 2 percent of the population to 13.6 percent, according to the Institute for Health Metrics and Evaluation, an independent research center at the University of Washington. The New York Times
Madagascar: WHO steps up Madagascar plague outbreak response as cases top 130

2 October - The World Health Organization (WHO) announced yesterday that it is scaling up its response to a plague outbreak in Madagascar that has spread to the capital and port cities in recent weeks over the past few weeks, resulting in more than 100 infections. In an update today, the WHO said that, as of Sep 30, Madagascar has reported 73 suspected, probable, and confirmed cases of pneumonic plague, 17 of them fatal. Besides the pneumonic cases, Madagascar has reported 58 cases of bubonic plague, 7 of them fatal. The latest totals reflect increases of 22 pneumonic and 5 bubonic plague cases since the WHO’s first outbreak announcement on Sep 29. A case of septicemic plague has also been reported, for a total of 132, which is 27 more cases than the WHO reported just 3 days ago. The event is Madagascar’s second plague outbreak this year. Ten cities have reported pneumonic plague cases, including the capital city of Antananarivo and its suburbs, Toamasina and Faratsiho. CIDRAP News Scan (third item)

Nigeria: Monkeypox reported in Bayelsa State, Nigeria

4 October - At least 10 human monkeypox cases have been confirmed in Bayelsa State in southern Nigeria, according to a local news source. Bayelsa State Commissioner for Health, Dr. Ebi Etebu not only confirmed the outbreak but said health workers in the ministry were looking for 49 other people believed to have come in close contact with the identified 10 carriers. Outbreak News Today

Pakistan: New polio case identified in Pakistan

29 September - Officials reported one new case of wild-type poliovirus reported in Pakistan this week, according to the weekly update from the Global Polio Eradication Initiative (GPEI). The case brings the total number of wild poliovirus cases in Pakistan this year to five. ... Pakistan, along with Afghanistan and Nigeria, is one of three countries where wild poliovirus is still endemic. Last week, Syria and the Democratic Republic of the Congo reported new cases of vaccine-derived polio. CIDRAP News Scan (sixth item)

Saudi Arabia: New MERS cases confirmed in Saudi Arabia

2 October - After a lag in reporting last week, the Saudi Arabian Ministry of Health (MOH) updated it information on MERS-CoV cases over the weekend, noting three new cases since
the agency last reported on Sep 25. On Sep 26, the MOH said a 52-year-old Saudi man from Taif had been diagnosed as having MERS-CoV (Middle East respiratory syndrome coronavirus). He was reported to be in critical condition. The man had direct contact with camels, a known risk factor for MERS transmission. The following day a 76-year-old Saudi man from Nifi was diagnosed as having the disease. He was also symptomatic and is in stable condition. The man’s source of infection is listed as "primary," meaning it’s unlikely he contracted the disease from another person. Finally, on Sep 30, the MOH said a 31-year-old Saudi man from Bishah was in critical condition with a MERS-CoV infection. That man also had direct contact with camels. CIDRAP News Scan (first item)

Yemen: Yemen cholera cases could hit 1 million by year-end

29 September - The humanitarian situation in Yemen is a "catastrophe", and cholera cases could reach a million by the end of the year, the International Committee of the Red Cross said on Friday. ... [S]uspected cases of cholera have reached 750,000, with 2,119 deaths, [Alexandre] Faite said, and the Red Cross expects at least 900,000 cases by the end of the year. ... With the main port of Hodeidah damaged, the Red Cross brings medical aid, including insulin, into Yemen with occasional cargo planes to Sanaa. Reuters

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USEUCOM

Italy: Chikungunya

29 September - As of 26 September, 183 cases have been notified to the Lazio Region of Italy, which includes the coastal areas of Anzio and Latina as well as the city of Rome. Of the notified cases, 109 are confirmed and 74 additional cases are being investigated (all with an epidemiological link to the Lazio Region). Three more confirmed cases have also been notified from other areas with a travel history to Anzio. The date of onset of symptoms of the first case was on 26 June 2017. ... There is a risk for further transmission. This is due to:

- *Aedes albopictus* being established throughout the Mediterranean basin;
- this vector having demonstrated the capacity to sustain outbreaks of chikungunya in the past; and
- the area of the current case being highly populated and touristic particularly in summer months. WHO
United Kingdom: Mental health - 10 charts on the scale of the problem

30 September - At any one time, a sixth of the population in England aged 16 to 64 have a mental health problem, according to statistics body NHS Digital. Whether it is family or friends, neighbours or work colleagues, the chances are we all know someone who is affected. And bearing in mind the figure leaves out less common conditions and is a snapshot in time, you could easily argue it is even more prevalent than that. Indeed many do. With Prime Minister Theresa May expected to announce plans to improve care next week, these 10 charts show the extent of the challenge. BBC News

United Kingdom: Revealed - every Londoner breathing dangerous levels of toxic air particle

4 October - The scale of London’s air pollution crisis was laid bare on Wednesday, with new figures showing that every person in the capital is breathing air that exceeds global guidelines for one of the most dangerous toxic particles. The research, based on the latest updated London Atmospheric Emissions Inventory, shows that every area in the capital exceeds World Health Organisation (WHO) limits for a damaging type of particle known as PM2.5. It also found that 7.9 million Londoners – nearly 95% of the capital’s population – live in areas that exceed the limit by 50% or more. In central London the average annual levels are almost double the WHO limit of 10 µg/m3. The Guardian

United Kingdom: Sale of acids to under-18s to be banned, Amber Rudd says

3 October - The government will ban the sale of acids to anyone under the age of 18, Home Secretary Amber Rudd has said. Her pledge, at the Conservative Party conference, comes as more than 400 attacks using corrosive substances were recorded in the six months to April. She also said she would “drastically limit” sales of sulphuric acid, given that it can be used to make explosives. And Ms Rudd called on internet firms and social media platforms to “act now” and remove extremist content online. BBC News

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Mexico: Mexico quake toll 361; 8 still missing in collapsed building

1 October - The death toll from Mexico’s magnitude 7.1 earthquake rose to 361 on Sunday after another casualty was confirmed in the capital, where a search continued at a collapsed seven-story office building in a central neighborhood. National Civil Defense chief Luis Felipe Puente reported on Twitter that the dead include 220 people killed in Mexico City by the Sept. 19 quake. The rest were in Morelos, Puebla and three other states. The toll has continued to climb gradually nearly two weeks after the earthquake as bodies keep being pulled from the rubble — though nearly all the collapse sites have been cleared by now in Mexico City. Mayor Miguel Angel Mancera said eight people were still believed to be missing inside the wreckage of the office building, one of 38 structures that toppled in the capital. Miami Herald

U.S.: 9 million kids get health insurance under CHIP. Congress just let it expire.

1 October - Congress just allowed the Children’s Health Insurance Program, which provided low-cost health insurance to 9 million children, to expire. If action is not taken soon to restore the funding, the effects will become obvious in schools across the country, with many of the children in the program unable to see a doctor for routine checkups, immunizations, visits when sick and other services. The program ... was instrumental in lowering the percentage of children who were uninsured from nearly 14 percent when it started to 4.5 percent in 2015. It was last reauthorized in 2015 and was due to be renewed by Sept. 30, 2017. Amid unsuccessful efforts to repeal and replace the Affordable Care Act, the Republican-led Congress allowed the CHIP deadline to pass without action. The Washington Post

U.S.: Breast-cancer death rate drops almost 40 percent, saving 322,000 lives, study says

3 October - Breast cancer death rates declined almost 40 percent between 1989 and 2015, averting 322,600 deaths, the American Cancer Society reported Tuesday. Breast cancer death rates increased by 0.4 percent per year from 1975 to 1989, according to the study. After that, mortality rates decreased rapidly, for a 39 percent drop overall through 2015. The report, the latest to document a long-term reduction in breast-cancer mortality, attributed the declines to both improvements in treatments and to early detection by mammography. The Washington Post
U.S.: Cold War radiation testing in U.S. widespread, author claims

2 October - Three members of Congress are demanding answers after a St. Louis scholar’s new book revealed details of secret Cold War-era U.S. government testing in which countless unsuspecting people, including many children, pregnant women and minorities, were fed, sprayed or injected with radiation and other dangerous materials. The health ramifications of the tests are unknown. Lisa Martino-Taylor, an associate professor of sociology at St. Louis Community College who wrote “Behind the Fog: How the U.S. Cold War Radiological Weapons Program Exposed Innocent Americans,” acknowledged that tracing diseases like cancer to specific causes is difficult. ... Martino-Taylor used Freedom of Information Act requests to obtain previously unreleased documents, including Army records. She also reviewed already public records and published articles. She told The Associated Press that she found that a small group of researchers, aided by leading academic institutions, worked to develop radiological weapons and later “combination weapons” using radioactive materials along with chemical or biological weapons.

Military Times

U.S.: Deadly West Nile virus cases are spiking in L.A. The first line of defense - chickens

29 September - The chickens are used to the needles. They don’t fuss when vector ecologist Tanya Posey pulls opens the door of a coop in a community garden here, firmly grasps a Leghorn, and pulls a blood sample out of its wing vein. ... More than six dozen sentinel chickens, living in coops dotted around Los Angeles, make up one of the first lines of defense in this sprawling county’s fight against West Nile virus. The disease has been a background threat for years here, but cases have spiked this fall to worrisome levels. Six deaths have been reported by Los Angeles County this year — including three just last week. And the cases are alarmingly severe: Of 98 reported infections here this year, 79 have led to serious neurological side effects, and 87 have required hospitalization. Because it’s still peak mosquito season, more deaths are expected. STAT

U.S.: Failure to vaccinate is likely driver of U.S. measles outbreaks, report says

3 October - People who don’t get vaccinated are the most likely reason for the steady increase in the rate of measles and major outbreaks in the United States, according to an analysis released Tuesday. The findings, published in JAMA, add to the body of evidence linking failure to vaccinate with the spread of the highly infectious and potentially fatal disease. Once common in the United States, measles was eliminated nationally in 2000 but has made a return in recent years largely because of people who reject vaccinating their children, experts say. Most of those cases occur when the disease is brought into the country by unvaccinated people who get infected in other countries, where measles may remain endemic. The Washington Post
U.S.: Health experts urge NIH to renew gun research funding after Las Vegas shooting

3 October – In the wake of the Las Vegas concert shooting, the deadliest mass shooting in recent American history, health experts are urging the National Institutes of Health to renew funding for gun violence research that expired earlier this year. Following the Sandy Hook Elementary School shooting in 2012, President Obama directed health agencies to fund research into firearms — leading the NIH, which has an annual budget of $34 billion, to award a total of $18 million for nearly two dozen different research projects. But that program was scheduled to end in January 2017, days before President Trump took office, and the agency has not renewed it. A spokesperson for the NIH told STAT that the renewal of the funding program “is still under consideration,” and the agency will keep accepting gun violence research proposals “submitted to existing general funding opportunity announcements.” STAT


6 October - Human adenoviruses (HAdVs) can cause a wide spectrum of clinical illness, ranging from asymptomatic infections to severe illnesses and death. Approximately 60 HAdV genotypes have been identified to date, and they are associated with different clinical illnesses, including respiratory illness, gastroenteritis, and conjunctivitis. Surveillance for circulating HAdV types in the United States is passive and voluntary but might be useful to inform diagnostic and surveillance activities by clinicians and public health practitioners. Based on data from the National Adenovirus Type Reporting System, the most commonly reported types of HAdVs during 2003–2016 in the United States were HAdV types 1, 2, 3, 4, 7, and 14, which accounted for 85.5% (n = 1,283) of all types reported. Year-to-year fluctuations in HAdV types circulating in the United States varied considerably, likely reflecting increases in testing in response to recognized HAdV outbreaks. HAdV type-based surveillance data can be used to determine patterns of circulation for individual HAdV types in the United States, assist with the recognition and documentation of outbreaks associated with circulating types, and guide development of new diagnostic tests, therapeutics, and vaccines. Morbidity and Mortality Weekly Report

U.S.: Hurricane damage in Puerto Rico leads to fears of drug shortages nationwide

4 October - A factory owned by the pharmaceutical company Mylan, which makes the childhood leukemia drug methotrexate, in Caguas, P.R., is one of 80 drug manufacturing plants struggling to stave off shortages of critical medicines in the aftermath of Hurricane Maria. Federal officials and major drugmakers are scrambling to prevent national shortages of critical drugs for treating cancer, diabetes and heart disease,
as well as medical devices and supplies, that are manufactured at 80 plants in hurricane-ravaged Puerto Rico. Pharmaceuticals and medical devices are the island’s leading exports, and Puerto Rico has become one of the world’s biggest centers for pharmaceutical manufacturing. Its factories make 13 of the world’s top-selling brand-name drugs.

The New York Times

U.S.: Michigan's toxic 1973 PBB food contamination associated with more health effects

5 October - Researchers find there could be more health effects lingering decades after a toxic contamination of Michigan's food supply. In 1973, a plant owned by Velsicol Chemical made a mistake and shipped a toxic flame retardant chemical to a livestock feed plant. It's called polybrominated biphenyl, or PBB. It took about a year to discover the accident. Millions of Michiganders ate contaminated beef, chicken, pork, milk and eggs. After the chemical mix-up in the 1970s, the state of Michigan enrolled about 6,000 people in a registry to track their health. A team at Emory University has been following those people and their children. Melanie Jacobson is the lead author of the latest study from Emory. “And we found that the prevalence of thyroid disease was greater than expected - up to 25% of women reported thyroid disease. And we also found that higher PBB levels were associated with an increased prevalence of thyroid disease. But this was only true among women, although estimates were somewhat imprecise.” Michigan Radio

U.S.: Project BioShield adds Ebola vaccines, drugs to US stockpile

2 October - The U.S. Department of Health and Human Services (HHS) has announced the first Project BioShield funding for Ebola countermeasures, which would add two vaccines and two treatments to the Strategic National Stockpile (SNS): a single-dose vaccine licensed by Merck, a prime-boost vaccine regimen from Johnson & Johnson, and monoclonal antibody treatments from Mapp Biopharmaceutical and Regeneron Pharmaceuticals. The $170.2 million in Project BioShield funds covers late-stage development and buys up to 1.13 million vaccine regimens and an unspecified number of treatment courses of the two drugs. CIDRAP

U.S.: Study examines how far U.S. women must travel to get abortion

3 October - How far do American women need to travel in order to obtain an abortion? A new study, billed as the first of its kind, makes those calculations state-by-state and county-by-county, revealing some striking disparities. In New York, the average distance is about three miles (five kilometers). At the other end of the scale, the average distance in Wyoming is about 168 miles (271 kilometers). The analysis was conducted by researchers with the Guttmacher Institute, a research group that supports abortion rights, using 2014 data on abortion clinic locations and U.S. Census population figures. The findings were published
HURRICANE RESPONSE

Hurricane Maria victims airlifted to mainland hospitals from US Virgin Islands and Puerto Rico

4 October - Evacuees from Puerto Rico and the U.S. Virgin Islands are being transported to mainland hospitals to receive care for critical medical conditions caused or impacted by Hurricane Maria. In South Carolina, more than a dozen evacuees have arrived at the Columbia Metropolitan Airport by C-130 or private jet to be transported to various medical facilities around the state's capitol. ... In Puerto Rico, 59 out of 68 hospitals are open but not considered fully functional. [Major] Troy and her team from Fort Jackson are a part of the National Disaster Medical System, N.D.M.S, and Federal Coordination Center, F.C.C, which were activated in cities within the southern states of Louisiana, Mississippi, Georgia, and South Carolina. Fox News

Jim Mattis: No lack of resources in Puerto Rico with 10,000 troops on the ground

3 October - Defense Secretary Jim Mattis said Tuesday that about Hurricane Maria victims airlifted to mainland hospitals from US Virgin Islands and Puerto Rico 10,000 troops were on the ground in Puerto Rico and there was no delay in the Pentagon meeting requests for aid, despite criticisms that the administration has been slow to deploy forces to the island. "I assure you this is all hands on deck. There is no delay, when a request comes in it is approved the moment it hits the Pentagon," Mattis told the Senate Armed Services Committee during testimony. ... Sen. Richard Blumenthal, D-Conn., said he recently met with Defense Department and Federal Emergency Management Agency officials and found the military was still not doing enough, a refrain from Democrats on Capitol Hill. "What impressed me is, very bluntly, was the need for additional troops and resources there from the Department of Defense in order to fill the gap and the disconnect between the supplies that are in the ports and airports and the people," said Blumenthal, who is a committee member. Washington Examiner

Mental health concerns in aftermath of Puerto Rico hurricane

5 October - ... The hurricane that pummeled Puerto Rico two weeks ago and the scarcity-marked aftermath are taking a toll on islanders’ equilibrium. The U.S. territory’s government counted two suicides among the death toll, which now stands at 34, and with many communities still waiting for power and clean water, there is concern about others reaching a breaking point. ... Dr. Olga Rodriguez, the dean of the Ponce Health Science University's school of medicine, said mental health problems have increased after the hurricane and need to be dealt with swiftly. "This is very important so as to minimize the impact and
emotional effects,” she said. "It's not easy. We're reaching some people, but the island needs more mental health professionals. If we don’t act, the situation can become problematic.” "People are unable to go to work, they cannot produce, they do not know when they can return to work,” she said. "There's widespread despair." **ABC News**

**Puerto Rico health system on life support two weeks after Hurricane Maria**

5 October - Two weeks after Hurricane Maria toppled Puerto Rico's communications towers, wrecked its electrical grid and knocked out power to water systems, medical officials said the island’s health system is "on life support." ... Among the multiple impacts that have left the island’s medical system deeply damaged:

- Patients are dying because of complications related to the primitive conditions and difficult transportation issues so many island residents now endure.
- A lack of transportation in small towns makes it difficult to transfer patients to larger hospitals. ...
- Severe lack of communications on the island has resulted in less triage and coordination between hospitals, and more patients arriving at large medical centers than usual, which has stretched capacity. **USA TODAY**

**USPACOM**

**Bangladesh: Disease fears grow as Bangladesh plans giant Rohingya refugee camp**

4 October - ... More than 507,000 Rohingya refugees have pushed into Bangladesh over the last six weeks, fleeing a Myanmar military crackdown that followed a Rohingya armed group's attacks on border posts in northern Rakhine State. With refugees overflowing existing camps, newcomers have been forced to seek shelter wherever they can find the space. ... Now, the Bangladeshi government is pushing forward with plans to build a massive camp it says will host the majority of the new Rohingya refugees. ... ... During a recent IRIN visit to the area, large parts of the camp were muddy and difficult to navigate after a heavy rainfall. Children bathed in dirty water in nearby ponds, while human faeces speckled the ground. Missing is the vital infrastructure to support a vulnerable and swelling refugee population: water, toilets, or even the access roads that would help build them. This has raised concerns that overcrowding could trigger outbreaks of disease, from measles and diphtheria to dysentery and cholera, which is endemic in Bangladesh. **IRIN**
China: Study finds MCR-1 is widespread in Chinese ecosystem

29 September - New research out of China indicates that the colistin-resistance gene MCR-1 is prevalent in the country’s water supply, animals, food, and human population. … [A] research team from Hong Kong Polytechnic University reports that MCR-1-harboring bacteria, mainly Escherichia coli, were detected in 71% of water samples, 51% of farm animal fecal samples, 36% of food products, and 28% of human subjects. The researchers say the findings indicate the gene, which was first discovered in China in 2015, will not only be difficult to eliminate, but could potentially spread in the hospital environment within a short period. CIDRAP

Japan: Japanese Government - Political reporter was worked to death

5 October - Miwa Sado, a 31-year-old political reporter for NHK, Japan’s public broadcasting network, died of heart failure in her home in July 2013. She was found in bed by a friend, holding her cell phone. NHK revealed in an Oct. 4 news story that Sado had worked 159 hours of overtime in the month before her death. During that news broadcast, the network revealed that the death of Sado was attributed to overwork by Investigators from Japan’s Ministry of Health, Labour and Welfare. In fact, death from overwork is so common in Japan that there is a word for it: “karoshi.” When asked by the Asahi Shimbun why the announcement of the cause of Sado’s death had been delayed for more than three years, a spokesperson for the network told the news agency that Sado’s family did not want the information made public. “But we decided that we needed to disclose it as we are pushing the program to reform the workplace and a way of working, which was spurred by Sado’s death,” the spokesperson added. EHS Today

USSOUTHCOM

The Americas: PAHO reports more chikungunya infections

2 October - … [T]he Pan American Health Organization (PAHO) on Sep 29 reported 223 new chikungunya infections, bringing the yearly total to 182,950 confirmed, suspected, and imported cases. In the previous week PAHO reported 37,254 new cases, almost all of them in Brazil. French Guiana reported the highest increase last week, with 89 new cases but only 261 total for the year. Several other nations reported small increases, including the United States, which has now reported 52 imported cases to PAHO. CIDRAP News Scan (fifth item)
Venezuela: One million unvaccinated Venezuelan kids vulnerable in measles outbreak

29 September - Around 1 million unvaccinated Venezuelan children are susceptible to measles, a highly contagious disease that has re-emerged in the crisis-stricken South American nation, a group of doctors estimated on Friday. A crippling shortage of medicines and vaccines, as well as decaying hospitals and an exodus of doctors has thrown Venezuela's health sector into a tailspin. Amid the crisis, once-controlled diseases like diphtheria and measles have returned to the fore, putting Venezuela's 30 million people at risk and raising the threat of contagion beyond its borders. Reuters

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