7 October 2016

Army Public Health Weekly Update

Army Public Health Center

Contents

U.S. MILITARY

- 20 percent of Army kids will need mental health treatment
- Retired Marine receives a double arm transplant
- Tiny patch sends soldier's vitals to smartphone
- Trans military families will finally receive health coverage

GLOBAL

- A single concussion may have lasting impact
- Childhood stunting can cut future earnings by up to a quarter: Lancet
- Diabetes-related vision loss increases worldwide, study finds
- Next-generation sequencing for public health gets HHS' support
- Ripe old age: humans may already have reached maximum lifespan
- Scientists fix fractures with 3D-printed synthetic bone
- Study points to risk factors for lymphoma
- Study shows health improving globally, but progress is patchy
- The coming public health disaster
- ZIKA VIRUS
- CDC updates Zika guidance for couples trying to conceive
- Children who get Zika after birth tend not to fall seriously ill, study finds
- Colombian study bolsters evidence of Zika-GBS link
- Generation Zika
- Hurricane Matthew could make Florida’s Zika problem worse
- Texas enhances Zika surveillance in the Rio Grande Valley
- Zika vaccine race spurred by crisis and profit potential

INFLUENZA

- NHRC: Febrile Respiratory Illness Surveillance Update
- USAFSAM: DoD Global, Laboratory-Based, Influenza Surveillance Program
- WHO: Influenza Update
- WHO switches H1N1 in Southern Hemisphere flu vaccine

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VETERINARY/FOOD SAFETY

- FDA warns against use of homeopathic teething products
- Three-state *Salmonella* outbreak linked to eggs

WELLNESS

- App aims to conduct the world’s largest mental health study, reduce suicides
- A roller coaster remedy for kidney stones?
- Don’t expect Fitbits to improve health, help drop pounds
- Explosion injuries from e-cigarettes
- Herbal and dietary supplements tied to liver damage
- Hormonal contraception tied to increased depression risk
- J&J warns diabetic patients: Insulin pump vulnerable to hacking
- Long-term, reversible contraception gains traction with young women
- State-specific prevalence of current cigarette smoking and smokeless tobacco use among adults — United States, 2014
- This is probably the least you’ll weigh all year. Sorry.
- Why did the Obamas fail to take on corporate agriculture?

USAFRICOM

- Niger: Rift Valley fever in Niger
- Nigeria: Wild polio and vaccine derived polio in Nigeria

USCENTCOM

- Afghanistan: Many hospital medics forced to flee embattled Afghan city, jeopardizing care
- Iraq: Iraq War records reignite debate over US use of depleted uranium

USEUCOM

- Greece: Greek doctors, paramedics protest severe health cuts
- Poland: Polish women go on nationwide strike against proposed abortion ban
- Russia: Putin suspends nuclear pact, raising stakes in row with Washington

USNORTHCOM

- U.S.: Amid water crisis, Flint faces a Shigellosis outbreak
- U.S.: An alarming 10% rise in traffic deaths in the first half of 2016
- U.S.: CDC notes 50 acute flaccid myelitis cases so far this year
- U.S.: Panel develops plan for preventing youth suicide

USPACOM

- Asia: Tick-borne disease causes high fever, severe illness in Southeast Asia
- India: Chikungunya cases top 5,000 in Delhi
- India: Japanese encephalitis kills 30 children in month; NHRC seeks report from Odisha govt
- Japan police probe hospital poisoning deaths
- Philippines: Chikungunya outbreak hits Cavite; 400 cases detected

USSOUTHCOM

- Haiti braces for post-hurricane cholera outbreak, a ‘potential humanitarian disaster’
- Haiti: Hurricane Matthew kills at least 264 in Haiti
- Haiti: UN: $362 million aid package for Haiti cholera epidemic
- Haiti: U.S. Southern Command sending troops to Haiti for disaster relief
- Peru: The country that cracked its stunting crisis
Vector-borne Disease Report

West Nile Virus: As of 27 September, 956 human West Nile virus cases have been reported to the CDC. Army-wide: 67 pools of Culex spp. mosquitoes tested positive for WNV.

U.S. MILITARY

20 percent of Army kids will need mental health treatment

5 October - One in five Army kids will need mental health treatment within the first 15 to 16 years of their lives, said the Army’s director of psychological health. But there continues to be a nationwide shortage of child psychologists and child psychiatrists, affecting not just the military community, but the civilian community at large. ... The Army can’t just hire enough people to provide mental health care – officials have to work with the community, [Dr. Christopher Ivany] said. Through the Child and Family Behavioral Health System, they bring together best practices. Part of that is school behavioral health clinics within Army schools on post at 14 installations. Defense News

Retired Marine receives a double arm transplant

5 October - Six years ago, Marine Sgt. John Peck had all four of his limbs blown off by an explosion in Afghanistan. Today, thanks to a double arm transplant, he is talking about the miracle of holding his fiancée’s hand and feeling the pressure when she squeezes. ... Peck, 31, underwent a 14-hour surgery in August, performed by a team of 60 doctors, nurses and other medical personnel led by Dr. Simon Talbot, the hospital’s director of upper extremity transplantation. Talbot said it will be nine to 12 months before the nerves in Peck’s new arms are fully functional again. Still, Peck said he can lift his arms and is relearning to brush his teeth, dress and feed himself. His goal is to achieve the dream he’s had since he was a boy: to become a world-class chef. NPR

Tiny patch sends soldier's vitals to smartphone

3 October - As the military searches for new ways to monitor soldiers' vital signs, one option is a tiny wireless patch that sticks to your neck. The Wireless Sensor Integrated Conformal System, or “smart patch,” is likened to a "super" FitBit. ... The patch is placed on one of the carotid arteries in the neck, where it can remain all day. The device monitors and collects such data as heart rate, breathing and skin and core body temperature. ... It has built-in Bluetooth that allows a soldier to send his or her vitals to a mobile device. Willis said the patch can be used during a training exercise so the team leader can keep an eye on his or her troops. If the leader sees that a soldier is reaching his or her physical threshold during training, then the soldier can be removed before injury occurs. Defense News
Trans military families will finally receive health coverage

5 October - ... The Pentagon announced in June an end to the military’s ban on transgender service members. The ripple effect of the new health benefits extends beyond active-duty military to include roughly 7 million retirees and children of service members. ... The change puts support for Jenn’s mental and physical wellbeing during her transition within reach, but the new coverage also comes with controversy. The National Center for Transgender Equality says the new policy doesn’t go far enough, with a key operation — gender-reassignment surgery — covered only for active-duty personnel. The Center for Military Readiness, a conservative group, also derides the new insurance, arguing that it covers expensive treatments devoid of any military purpose. Motto


September 2016 - This report contains an update through June 2016 of the results of routine screening for antibodies to the human immunodeficiency virus (HIV) 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 (0.31 per 1,000 tested), up 29% from 2014 (0.24 per 1,000 tested). Seroprevalences among Marine Corps reservists, Navy active component service members, and Navy reservists also peaked in 2015. In the Army National Guard and the reserve component of the Marine Corps, full-year seroprevalences have trended upward since 2011. Overall (January 2011–June 2016) seroprevalences were highest for Army reservists, Army National Guard members, Navy active component members, and Navy reservists. Medical Surveillance Monthly Report

GLOBAL

A single concussion may have lasting impact

5 October – ... [S]cientists concentrated on all Swedes born between 1973 and 1985 and looked for those who had experienced a head injury of some kind before the age of 25. ... For each participant, the researchers also compiled comparable medical and other records for a sibling who had never been given a diagnosis of a head injury ... Young people who had experienced a single diagnosed concussion ... were much more likely than the nation’s
general population and than their own siblings to be receiving medical disability payments as adults. They also were significantly more likely to have sought mental health care and much less likely to have graduated from high school or to have attended college than their uninjured brother or sister. And they were about twice as likely as an uninjured sibling to die prematurely. The possibility of lingering physical or psychological problems during adulthood rose precipitously, the researchers found, if someone had experienced more than one concussion while young, or if his or her brain injury had been more severe than a concussion. The New York Times

Childhood stunting can cut future earnings by up to a quarter: Lancet

4 October - Some 250 million children worldwide risk not reaching their full potential due to extreme poverty and stunting, cutting their future earnings by up to 26 percent and seriously impacting national growth. ... The failure to invest in early child development is costing some low and middle income countries two to three times their current expenditure on health, researchers calculated. ... New analysis of data from 2010 - the latest figures available - suggests 249.4 million or 43 percent of children under five in low and middle income countries risk not meeting their developmental potential - down from 279.1 million in 2004. ... In sub-Saharan Africa, two thirds of children are estimated to be at risk of poor development due to stunting and poverty, followed by 65 percent in South Asia, and 18 percent in the Caribbean and South America, the researchers found. Reuters

Diabetes-related vision loss increases worldwide, study finds

October 2016 - Diabetes-related vision impairment is climbing worldwide, signaling a need for global health systems to make vision loss prevention a priority, according to a recent study. The number of people who were visually impaired due to diabetic retinopathy increased by 64 percent globally from 1990 to 2010. ... But just as visual impairment from diabetic retinopathy increased 64 percent, so did blindness, by 27 percent between 1990 and 2010. In addition, people were more likely to have visual impairment in countries in South Asia, the Middle East, North Africa and west Sub-Saharan Africa. Blindness from diabetic retinopathy was more common in East Asia, tropical Latin America and south Sub-Saharan Africa. The diversity between regions speaks to differences in access to primary care services, such as screenings, as well as socio-economic factors and ethnic differences in disease susceptibility. The Nation’s Health

Next-generation sequencing for public health gets HHS' support

3 October - HHS' Office of the Assistant Secretary for Preparedness and Response (ASPR) announced last week that it is supporting efforts to advance a next-generation genetic sequencing platform through ASPR's Biomedical Advanced Research and Development
Authority (BARDA). The goal of next-generation sequencing is to allow clinicians and researchers to decode DNA and RNA faster than in the past--in this case, fast enough to respond to urgent public health threats. The project specifically aims to help reduce the spread of pandemic influenza and antibiotic-resistant infections by enabling more rapid diagnoses, which would allow clinicians to provide patients with the right treatment, do so more quickly, and reduce the amount of time patients might spread their pathogens. 

*Healthcare Dive*

**Ripe old age: humans may already have reached maximum lifespan**

5 October - ... An analysis of mortality and population data covering about 40 countries indicated humankind may already have hit its longevity ceiling. ... Average life expectancy continues to increase and more people are reaching extreme old age. But, the researchers said, people who reach 110 today have no greater life expectancy than those who lived to 110 in the 1970s. The age at death of the world's oldest person has not increased since [Jeanne] Calment died in 1997 [at 122]. The trend since then has been for the world's oldest person to reach around age 115, and the researchers predicted this would remain stable for the foreseeable future. ... "We suspect that the accumulation of damage with age, especially mutations in the individual cells of the body, somatic mutations, ultimately places a limit on lifespan," [researcher Brandon] Milholland said. [Reuters]

**Scientists fix fractures with 3D-printed synthetic bone**

29 September - Scientists in the United States have successfully treated broken spines and skulls in animals using 3D-printed synthetic bone, opening the possibility of future personalized bone implants for humans to fix dental, spinal other bone injuries. Unlike real bone grafts, the synthetic material - called hyper-elastic bone - is able to regenerate bone without the need for added growth factors, is flexible and strong, and can be easily and rapidly deployed in the operating room. ... Human trials could begin with five years, they said. The team found that when used in spinal injuries in rodents and to mend the skull of a monkey, the hyper-elastic bone, made mostly of a ceramic and polymer, quickly integrated with surrounding tissue and began regenerating bone. [Reuters]

**Study points to risk factors for lymphoma**

5 October - Certain lifestyle, dietary, environmental, serologic, and genetic factors may raise the risk of non-Hodgkin lymphoma (NHL), according to researchers who reviewed 40 years of follow-up data from the Nurses' Health Study (NHS). ... [Researchers] found several risk factors and biomarkers for NHL and more than 35 distinct tumors in that category, including chronic lymphocytic leukemia. Trans fats and red meat, for instance, doubled the risk of NHL. The researchers also found a higher risk for women who reported long-term multivitamin use. However, they found no risk associated with diet or sugar-sweetened soda or aspartame or with dietary intake of vitamin D. Greater adiposity during childhood and adolescence was significantly associated with NHL. The researchers also observed a 19%
increased risk of all NHL per 5 kg/m² increase in BMI in young adulthood. Interestingly, taller women also had a higher risk of NHL. Federal Practitioner

Study shows health improving globally, but progress is patchy

6 October - Globally, people's health is improving and life expectancy is rising, but progress is far from universal with chronic diseases bringing long-term illness and causing seven out of 10 deaths. ... The Global Burden of Disease study, which shows the key drivers of ill health, disability and death in individual countries, found that by 2015, the world population had gained more than a decade of life expectancy since 1980. ... Among main contributors to this were large falls in death rates for many communicable or infectious diseases, including HIV/AIDS, malaria and diarrhea. ... Results painted a picture of patchy health gains across the world, driven in part by economic development. ... It found that while healthy life expectancy had increased in 191 of 195 countries - by 6.1 years - between 1990 and 2015, it had not risen as much as overall life expectancy, meaning people are living more years with illness and disability. Reuters

The coming public health disaster

5 October - NASA scientists recently confirmed that August was the hottest month in recorded history. It tied this past July for that dubious honor. Meteorologists are linking this heat to the recent spate of extreme flooding worldwide – everywhere from Louisiana to China. ... According to the Lancet, a British medical journal, "Climate change could be the biggest global health threat of the 21st century." High temperatures could set the stage for a public health disaster. They're disrupting global ecosystems and food production, causing more extreme weather events and wildfires, threatening coastal communities with accelerated sea level rise and creating the perfect conditions for deadly diseases to spread. U.S. News and World Report

ZIKA VIRUS

CDC updates Zika guidance for couples trying to conceive

30 September - The US Centers for Disease Control and Prevention (CDC) today expanded its recommendation for men potentially exposed to Zika virus who are considering trying to conceive with their partners to wait at least 6 months, regardless of symptoms, in line with new scientific evidence and recently updated World Health Organization (WHO) guidance. ... Genetic analysis of recent Zika viruses from Singapore and Malaysia suggests that the strain linked to outbreaks is related to an Asian strain that has circulated in Southeast Asia in the past, not the one fueling outbreaks in the Americas. ... Experts aren't sure if the Southeast Asian strain can cause the type of birth defects seen with the Asian strain, so the
announcement of the two Zika-associated microcephaly cases seems to suggest the potential for fetal complications. Thailand has identified two suspected microcephaly cases, one in an unborn baby, and a few days ago ruled out Zika links for two others.

**Children who get Zika after birth tend not to fall seriously ill, study finds**

30 September - Serious complications are rare among children infected with the Zika virus after birth, federal health researchers concluded in a study published on Friday — a rare bright spot in the unfolding story of the epidemic. About 160 teenagers and toddlers infected with Zika virus have been reported to the Centers for Disease Control and Prevention since 2015. Typically, these children got only mildly ill: 129 had a rash, C.D.C. researchers found, while half were feverish and a quarter had red eyes or joint pain. One hundred and eleven had two or more of the four main symptoms. Five teenagers, ages 16 and 17, were pregnant when they developed symptoms, highlighting the need for sexually active teenagers to protect themselves from Zika, especially after travel to affected places. None of these children developed a kind of temporary paralysis called Guillain-Barré syndrome, which may be triggered by Zika infection.

**Colombian study bolsters evidence of Zika-GBS link**

5 October - A study today in the *New England Journal of Medicine* shows more evidence of a strong link between Zika virus (ZIKV) and Guillain-Barre syndrome (GBS). Colombian researchers looked at 68 patients with confirmed GBS diagnoses from November 2015 to March 2016. Of the 68 patients, 66 (97%) had symptoms of ZIKV infection 1 month prior to the onset of GBS symptoms, with an average of 1 week between Zika symptoms and GBS symptom onset. Of the 68 patients with GBS, 42 were tested for ZIKV using RT-PCR, and the results were positive in 17 patients (40%). Moreover, 32 of the 37 patients with GBS who were tested (86%) had evidence of a recent flavivirus infection, indicated by antiflavivirus antibodies. All patients tested negative for dengue virus.

**Generation Zika**

4 October - U.S. public health officials are bracing for a wave of babies with severe Zika-related birth defects. The latest official numbers suggest 808 pregnant women in the U.S. appear to have been infected with Zika. Yet doctors are also steeling themselves for the possibility of birth abnormalities in another population: babies born to women who did not know they were infected. “There will be an extraordinary demand on special-needs care,” says Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases (NIAID) at the National Institutes of Health. Families faced with serious birth defects may need a whole range of services including occupational therapy, physical therapy and other medical assistance. It will be at least two years before doctors can get a good sense of the extent of the situation in the U.S., says Karin Nielsen-Saines, a pediatric infectious diseases specialist. Scientific American
Hurricane Matthew could make Florida's Zika problem worse

6 October - As the United States prepares to be walloped by Hurricane Matthew ... Florida finds itself in a particularly dangerous spot. ... “So in the first wave of wind, heavy rains, and storm surge—it could even have a beneficial effect in terms of washing away mosquito breeding sites,” says Peter Hotez, ... “but then as the waters recede, it could leave residual reservoirs of water in human-made containers that could breed Aedes aegypti.” ... [Another worry is] increased exposure. “Tens of thousands of persons in the hurricane-affected region were living in damaged housing or were waiting outside for days to be evacuated.” ... High rates of the disease have been reported in neighborhoods where houses don’t have screens or air conditioning—making residents more likely to prop open doors to keep cool.

The Atlantic

Texas enhances Zika surveillance in the Rio Grande Valley

4 October - Because of concerns about the Zika risk in an area of Texas where dengue outbreaks have occurred before, Texas state health officials urged medical providers to test pregnant women in six counties for the virus if they have symptoms, regardless of travel history. In other developments, Brazilian researchers who profiled 11 babies with Zika-linked microcephaly found a wide scope of problems, tests on macaques shed more light on how the virus might behave in humans, and Florida reported 6 more locally acquired Zika cases.

CIDRAP

Zika vaccine race spurred by crisis and profit potential

4 October - The race to find protection against the Zika virus is fueled by something often missing from tropical disease research: the potential for big profit. The prospect of a blockbuster vaccine against a mosquito-borne virus has accelerated the pace of development and attracted the interest of big drugmakers. ... Although Zika infections are mild or asymptomatic in most people, demand for a vaccine is expected to be strong because it can cause devastating birth defects, pharmaceutical executives and disease experts said. The most lucrative market is seen in travelers seeking inoculation against the virus. ... A vaccine could come to market in as little as two years. Even if the current outbreaks in Latin America and the Caribbean burn out by that time, people living in those regions are expected to want protection against a return of Zika. Reuters
INFLUENZA

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

Pneumonia and Influenza (P&I) Mortality Surveillance for 2015-2016 Influenza Season Week 38 ending September 24, 2016:

- NCHS Mortality Surveillance Data: Based on NCHS mortality surveillance data available on September 29, 2016, 5.1% of the deaths occurring during the week ending September 10, 2016 (week 36) were due to P&I. This percentage is below the epidemic threshold of 6.1% for week 36.

- 122 Cities Mortality Reporting System: During week 38, 5.8% of all deaths reported through the 122 Cities Mortality Reporting System were due to P&I. This percentage was above the epidemic threshold of 5.7% for week 38. CDC

NHRC: Febrile Respiratory Illness Surveillance Update

For 2016 Week 39 (through 1 October 2016):

- Influenza: No new cases of NHRC laboratory-confirmed influenza among US military basic trainees.
- FRI surveillance at all eight U.S. military basic training centers indicated FRI rates were at or below expected values. Naval Health Research Center

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

During 4 September - 1 October 2016 (Surveillance Weeks 36 - 39), a total of 129 specimens were collected and received from 38 locations. Results were finalized for 123 specimens from 38 locations. There were a total of six influenza A(H3N2) viruses identified during Weeks 36-39. The influenza percent positive fluctuated during this time period, although remaining low, and peaked at 19% during Week 36. The influenza percent positive for the season is currently 25%. US Air Force School of Aerospace Medicine

WHO: Influenza Update

3 October - Influenza activity varied in countries of temperate South America, was ongoing in South Africa and decreased in Oceania. Influenza activity in the temperate zone of the northern hemisphere was at inter-seasonal levels. WHO

WHO switches H1N1 in Southern Hemisphere flu vaccine

29 September - World Health Organization (WHO) vaccine advisors today recommended changing only the 2009 H1N1 component for the Southern Hemisphere's 2017 flu vaccine, the first change in the H1N1 component since the former pandemic virus became a globally
circulating seasonal flu strain. The newly recommended H1N1 vaccine strain, called A/Michigan/45/2015 replaces the longstanding A/California/7/2009 and is recommended to improve protection against two subclades that have emerged over the past season. However, the seasonal flu vaccines for the Northern Hemisphere, based in the WHO group’s recommendation last February, still contain the A/California/7/2009 vaccine strain. CIDRAP

VETERINARY/FOOD SAFETY

FDA warns against use of homeopathic teething products

30 September - The U.S. Food and Drug Administration warned against the use of homeopathic teething tablets and gels on Friday, citing potential risks to infants and children and prompting CVS Health Corp Inc to withdraw the products. The FDA is currently testing samples of the products and analyzing reports linking them to seizures in infants and children since 2010, the health regulator said in a statement. Reuters

Three-state Salmonella outbreak linked to eggs

4 October - The Centers for Disease Control and Prevention (CDC) said today that so far 8 people in Missouri (6), Illinois (1), and Kansas (1) have reported salmonellosis linked to eggs distributed by Good Earth Egg Company of Bonne Terre, Mo. Yesterday the company recalled all of its shell eggs with sell by dates of Oct 8. The eggs were distributed throughout the Midwest to supermarkets, wholesalers, restaurants, institutions, and direct-sales to customers. Illnesses began from Apr 23 to Aug 24, and epidemiologic investigations have traced back three cases of the foodborne illness to a Missouri restaurant that used Good Earth eggs. Patients range in age from 1 year to 85, with a median age of 44, and there have been two hospitalizations. Five of the patients are women. CIDRAP News Scan (first item)

WELLNESS

App aims to conduct the world’s largest mental health study, reduce suicides

3 October - A project called How is the world feeling? is aiming to use an iOS and Android app to conduct the world’s largest study of mental health over a one-week period starting on October 10. The aim is to gather data from ordinary people to identify patterns in
emotions, then to open-source anonymized data to mental health professionals in a bid to
device approaches to reducing suicide rates. The app is designed to take seconds to use,
asking people to select an emotion, select how strongly it is felt, and to enter a couple of
other data points – what you are doing and whether you are alone or with others. As a
benefit for users, you’ll get a log of your own data, so you can see what makes you
happiest. … All data is completely open-source, meaning any individual, NGO or business
can utilise the information gathered. … To participate in the study, simply download the free
app from iTunes. 9TO5MAC

A roller coaster remedy for kidney stones?

3 October – … [A new study] found that moderate-intensity, rattling coasters might be
effective at dislodging little kidney stones in the outer ducts of the kidney and propelling
them toward the ureter, the tube connecting the kidneys and bladder. … [R]iding these
roller coasters might help patients who have kidney stones that are five millimeters or less
in diameter. The New York Times

Don't expect Fitbits to improve health, help drop pounds

5 October - Wearing a fitness tracker may help you keep tabs on how many steps you take,
but the devices themselves — even with the lure of a cash reward — probably won’t
improve your health, according to the biggest study yet done on the trendy technology. …
[Researchers] tested the Fitbit Zip tracker in a group of 800 adults in Singapore. … After six
months, people with the Fitbit and who got the cash payment showed the biggest boost in
physical activity. But after a year, 90 percent of participants had abandoned the device. The
physical activity of the Fitbit wearers did not decline over the year as much as it did for
those who were not given a tracker, but the higher activity level wasn’t enough to produce
any improvements in weight or blood pressure. Fox News

Explosion injuries from e-cigarettes

6 October - Electronic nicotine-delivery systems (ENDS) include
electronic cigarettes (e-cigarettes) and personal vaporizers. The
prevalence of ENDS use is increasing among current, former, and
never smokers. E-cigarettes share a basic design; common
components include an aerosol generator, a flow sensor, a battery,
and a solution storage area.1 Many users do not understand the risk
of “thermal runaway,” whereby internal battery overheating causes a
battery fire or explosion. At our center, from October 2015 through June 2016, we treated
15 patients with injuries from e-cigarette explosions due to the lithium-ion battery
component. Such explosions were initially thought to be rare, but there have been reports,
primarily in the media, of 25 separate incidents of e-cigarette explosions from 2009 through
2014 across the United States. More recently, there have been case reports in the medical
literature. The e-cigarette explosion injuries seen among our patients included flame burns
(80% of patients), chemical burns (33%), and blast injuries (27%).
The New England Journal of Medicine
Herbal and dietary supplements tied to liver damage

6 October - One in five cases of chemical-induced liver damage come from herbal and dietary supplements, a research review concludes. A decade ago, less than one in 10 cases could be linked to supplements, researchers report. ... Up to half of U.S. adults consume supplements that contain ingredients such as vitamins, minerals, teas and proteins to improve diet, as well as illegal anabolic steroids, which are synthetic versions of testosterone used to boost athletic performance, the study found. “Overall, liver injury from supplements is rare,” said lead study author Victor Navarro, chair of hepatology at Einstein Healthcare Network in Philadelphia. “However, if overused, or used in combination with other supplements, or used for very prolonged periods or in combination with conventional medications, they may become harmful,” Navarro added by email. Reuters

Hormonal contraception tied to increased depression risk

29 September - Hormonal contraception, including birth control pills or implants, may increase a woman's odds of depression and antidepressant medication use, according to a large study of Danish women. Based on data about prescription drug use for more than 1 million women, researchers found that those who started using hormonal contraception were significantly more likely to subsequently get a first-time prescription for antidepressant medication, compared to women not on hormonal contraception. For adolescent girls, starting on hormonal contraception was tied to an even greater increased risk of antidepressant use. Depending on the type of hormonal contraception, there may have also been a link to risk of being diagnosed with depression. Reuters

J&J warns diabetic patients: Insulin pump vulnerable to hacking

4 October - Johnson & Johnson is telling patients that it has learned of a security vulnerability in one of its insulin pumps that a hacker could exploit to overdose diabetic patients with insulin, though it describes the risk as low. Medical device experts said they believe it was the first time a manufacturer had issued such a warning to patients about a cyber vulnerability, a hot topic in the industry following revelations last month about possible bugs in pacemakers and defibrillators. J&J executives told Reuters they knew of no examples of attempted hacking attacks on the device, the J&J Animas OneTouch Ping insulin pump. The company is nonetheless warning customers and providing advice on how to fix the problem. Reuters

Long-term, reversible contraception gains traction with young women

6 October - ... Long-acting reversible contraception methods — including implant rods and intrauterine devices, or IUDs — are safe forms of birth control, and 99 percent effective, say
specialists in reproductive medicine. They are endorsed by the American Academy of Pediatrics and the American Congress of Obstetricians and Gynecologists as a good line of defense against teen pregnancy. But in the U.S., these long-acting, reversible devices are still not as frequently used by young women as elsewhere. They can be expensive, and problems with older versions of the devices — issues that have since been resolved — hurt their reputation. Only about 10 percent of American women use the devices. ... Recently, the federal Department of Health and Human Services has started encouraging all states to make the methods more accessible through Medicaid, government insurance that covers many low-income women. NPR

State-specific prevalence of current cigarette smoking and smokeless tobacco use among adults — United States, 2014

7 October - ... In recent years, cigarette smoking prevalence has declined in many states; however, there has been little change in the prevalence of current smokeless tobacco use or concurrent use of cigarettes and smokeless tobacco in most states, with prevalence increasing in some states. ... The highest prevalence of any cigarette and/or smokeless tobacco use in the United States was seen in West Virginia. The difference in prevalence of any cigarette and/or smokeless tobacco use across states spanned almost 21 percentage points, ranging from 11.3% in Utah to 32.2% in West Virginia. Any cigarette and/or smokeless tobacco use was higher among males than females in all 50 states. Non-Hispanic whites had the highest prevalence of cigarette smoking and/or smokeless tobacco use in eight states, followed by non-Hispanic persons of other races in six states, non-Hispanic blacks in five states, and Hispanics in two states. Morbidity and Mortality Weekly Update

This is probably the least you’ll weigh all year. Sorry.

3 October - If you are anything like the Americans in a study by a Cornell University professor, your weight will reach an annual low this week or the next. But don’t get too excited — you’ll most likely get fatter soon. Later this month, the numbers on your scale will begin a long climb past holidays like Thanksgiving, Rosh Hashanah and Christmas, peaking around New Year’s Day. ... “Anything that happens in these next 10 weeks, on average, takes about five months to come off,” said Professor Brian Wansink of Cornell’s business school. ... While different patterns were found in each country, all three had one thing in common: Waistlines tended to grow in the 10 or so days leading up to holidays. The New York Times

Why did the Obamas fail to take on corporate agriculture?

5 October - Eight years ago this month, I [(Michael Pollan)] published in these pages an open letter to the next president titled, “Farmer in Chief.” “It may surprise you to learn,” it
began, “that among the issues that will occupy much of your time in the coming years is one you barely mentioned during the campaign: food.” ... A food system organized around subsidized monocultures of corn and soy, I explained, guzzled tremendous amounts of fossil fuel (for everything from the chemical fertilizer and pesticide those fields depended on to the fuel needed to ship food around the world) and in the process emitted tremendous amounts of greenhouse gas — as much as a third of all emissions, by some estimates. At the same time, the types of food that can be made from all that subsidized corn and soy — feedlot meat and processed foods of all kinds — bear a large measure of responsibility for the steep rise in health care costs: A substantial portion of what we spend on health care in this country goes to treat chronic diseases linked to diet. Furthermore, the scale and centralization of a food system in which one factory washes 25 million servings of salad or grinds 20 million hamburger patties each week is uniquely vulnerable to food-safety threats, whether from negligence or terrorists. The New York Times

top of page...

USAFRICOM

Niger: Rift Valley fever in Niger

29 September - On 30 August 2016, WHO received reports about unexplained deaths among humans, along with death and abortion in livestock in the North Western parts of Niger, and the areas bordering Mali. From 2 August to 22 September 2016, 64 human cases including 23 deaths have been reported in Tchintabaraden health district in Tahoua region. The area is mainly populated by nomadic stockbreeders. Most of the cases are male (62.5%), and work as farmers or animal breeders. In the affected area, an epizootic outbreak is also reported among livestock during the same time duration, including deaths and abortions among cattle and small ruminants. ... The risk that only severe cases are being detected and reported cannot be ruled out. There is no national local capacity to test the specimens.

WHO

Nigeria: Wild polio and vaccine derived polio in Nigeria

6 October - After more than two years without the detection of wild polio in Nigeria, the Government reported three laboratory-confirmed wild poliovirus type one (WPV1) cases with onset between July and August 2016. All three cases were detected from Borno State, in children between 2 and 5 years of age. Two of them developed acute flaccid paralysis (AFP) while one was asymptomatic, identified as a close contact of a child with AFP. The detected viruses are closely linked to WPV1 last detected in Borno in 2011. This is an indication that this virus strain has been circulating without detection since that time. In addition to the wild polio cases reported, a vaccine-derived poliovirus type 2 (cVDPV2) has also been detected in specimens collected from a healthy household contact of one of the WPV1 cases recently reported as part of strengthened disease surveillance activities being
implemented in the area. The genetic analysis of the isolated strain indicates that also this cVDPV2 strain has been circulating in the area for at least two years without prior detection. WHO

top of page...

USCENTCOM

Afghanistan: Many hospital medics forced to flee embattled Afghan city, jeopardizing care

6 October - Fighting in the northern Afghan city of Kunduz has forced many hospital staff to leave for safety, officials said on Thursday, further jeopardizing medical care for hundreds of people. … Government troops, backed by U.S. special forces and air strikes, have repeatedly declared that they are in control of the city, but residents report that heavy fighting has forced many people to flee. Among those fleeing Kunduz are about 70 percent of the staff at the city's main public hospital, which was struck by several rockets and small arms fire. … The 200-bed public hospital is the main provider of medical care in Kunduz after a more advanced trauma center run by Medecins Sans Frontiers was destroyed by an American air strike last year. Reuters

Iraq: Iraq War records reignite debate over US use of depleted uranium

6 October - Records detailing as many as 181,000 rounds of depleted uranium munitions shot in 2003 by American forces in Iraq have been unearthed by researchers, representing the most significant public documentation of the controversial armament's use during the US-led invasion. The cache shows that a majority of the 1,116 sorties carried out by A-10 jet crews during March and April of 2003 were aimed at so-called “soft targets” like cars and trucks, as well as buildings and troop positions. This runs parallel to accounts that the munitions were used on a wide array of targets and not just against the tanks and armoured vehicles that the Pentagon maintains super-penetrative DU munitions are intended for. … There is “very limited credible direct epidemiological evidence” proving a correlation between DU and health effects in these settings, David Brenner, director of Columbia University’s Center for Radiological Research, explained to IRIN. … The data may also be useful for clean-up efforts, if they were ever to be done on a large scale. IRIN

top of page...
Greece: Greek doctors, paramedics protest severe health cuts

6 October - Holding black helium balloons and parading an effigy of a dying patient, striking public hospital and ambulance workers marched through Athens on Thursday to protest severe cuts in public funding for the national health service. Health care workers held a 24-hour strike, leaving hospitals running with emergency staff. ... Per capita spending on health has been axed by a nearly a third since 2009 as the government made cuts required by its bailout programs, according to estimates by the Paris-based Organization for Economic Co-operation and Development. That has created longer waiting lists for treatment, staff shortages, and frequent medical equipment failure at Greek hospitals. The cuts were imposed despite Greece's fast-aging population and a steep increase in the number of long-term unemployed workers who have lost their state benefits. ABC News

Poland: Polish women go on nationwide strike against proposed abortion ban

3 October - Women all over Poland went on strike Monday to protest the government's plans for a ban on abortions. It was unclear how many women participated nationally, but organizers estimated that up to 6 million women joined in the protest, according to news reports. Some protesters wore black clothes as they marched through the streets on "Black Monday." There were counter-demonstrations, as well, with antiabortion protesters marching in white clothes to distinguish themselves from their ideological opponents. Poland’s abortion laws are already among Europe’s strictest. Women are allowed to have an abortion only if the pregnancy is due to incest or rape, or if the life of the pregnant woman or the fetus is under threat. Under the proposal, at least two of those exceptions would no longer exist. Women choosing an abortion illegally would face five years behind bars. The Washington Post

Russia: Putin suspends nuclear pact, raising stakes in row with Washington

3 October - Russian President Vladimir Putin on Monday suspended an agreement with the United States for disposal of weapons-grade plutonium because of "unfriendly" acts by Washington, the Kremlin said. A Kremlin spokesman said Putin had signed a decree suspending the 2010 agreement under which each side committed to destroy tonnes of weapons-grade material because Washington had not been implementing it and because of current tensions in relations. Reuters
USNORTHCOM

U.S.: Amid water crisis, Flint faces a Shigellosis outbreak

4 October - Flint, Michigan, is dealing with another outbreak. This time it's an infectious bacterial disease called Shigellosis, which can cause bloody diarrhea and fever and typically spreads when people don't wash their hands. ... A water crisis has plagued residents there for more than two years. ... Still afraid and mistrustful of the water, people in Flint -- who are still forced to use either filtered or bottled water because of damaged water pipes -- are bathing less, and refusing to wash their hands. "People aren't bathing because they're scared," said Jim Henry, Genesee County's environmental health supervisor. ... Instead, he said, people in Flint rely on baby wipes, which they can get for free at bottled water distribution centers. "But baby wipes are not effective, they're not chlorinated, it doesn't kill the bacteria and it doesn't replace handwashing," Henry said. ... Of the 84 cases so far this year in Genesee County, at least 53 are in the Flint city limits, said Henry, who tracks and investigates disease in the county. At least 27 were hospitalized. CNN

U.S.: An alarming 10% rise in traffic deaths in the first half of 2016

5 October - Traffic deaths in the United States rose 10.4 percent in the first half of this year compared with the same period in 2015, maintaining a steady climb. The numbers were released on Wednesday by the National Highway Traffic Safety Administration, which noted that Americans drove about 50.5 billion more miles in the first six months of 2016 than in the first half of 2015, an increase of 3.3 percent. ... Officials have not identified a specific cause for the most recent increase. ... The dire statistics were the latest bad news from the traffic safety administration. Beginning in the final months of 2014, the rate of fatalities has increased for seven consecutive quarters compared with the corresponding quarters of previous years. The New York Times

U.S.: CDC notes 50 acute flaccid myelitis cases so far this year

4 October - The CDC yesterday announced an uptick in the number of cases of acute flaccid myelitis (AFM), a rare polio-like illness that can cause paralysis. The CDC said that from Jan 1 to Aug 31, 50 people in 24 states have been diagnosed as having AFM. This is more than double the cases (21 in 16 states) reported in all of 2015. From August through December of 2014, there were 120 cases of AFM diagnosed in 34 states, many linked to outbreaks of enterovirus D68 (EV-D68) in children. AFM can be caused by many different viruses, and the CDC warns that the cause behind the recent spike is not yet clear. CIDRAP News Scan (second item)
U.S.: Panel develops plan for preventing youth suicide

4 October - An independent panel convened by the National Institutes of Health (NIH) has developed a 10-year roadmap for advancing research to prevent youth suicide. The panel listed 29 recommendations that address three critical issues: improving data systems, enhancing data collection and analysis methods, and strengthening the research and practice community. ... The report includes recommendations to address these four critical issues over the next decade:

- The need for surveillance by linking data from multiple sources (e.g., state all-payer databases, emergency room data, electronic health records data).
- The need to improve measurement across diverse populations and time scales of personal characteristics such as sexual orientation and identity, and environmental contexts that have been associated with suicide risk.
- The need to help practitioners in identifying effective suicide prevention programs.
- The need for coordinated education and training opportunities for health care providers, schools, agencies, families, and communities to remove the stigma associated with suicide. NIH

Asia: Tick-borne disease causes high fever, severe illness in Southeast Asia

4 October - A tick-borne bunyavirus is causing severe fever and illness in patients in Southeast Asia. ... Severe fever with thrombocytopenia syndrome (SFTS) is a hemorrhagic fever that's been documented in China and South Korea. The symptoms are fever, gastrointestinal signs and symptoms, leukopenia, and thrombocytopenia, with a history of exposure to ticks, shrubs, and weeds. In the first study, involving 25 Chinese patients who had been diagnosed and hospitalized with SFTS, researchers were able to detect neutralizing antibodies in up to 4 years after the initial illness. Through blood draws, the researchers were able to monitor antibody levels in the patients, and ... all patients produced long-lasting neutralizing antibodies to the SFTS virus. This suggests re-infection with the disease is unlikely. In another study, doctors in South Korea looked at serum samples from patients with fever and insect bite history in scrub typhus–endemic area in 2013. They found that 23% of patients suspected of having scrub typhus also had SFTS, meaning co-infection is possible and likely. CIDRAP News Scan (third item)

India: Chikungunya cases top 5,000 in Delhi

3 October - During the past week, Delhi saw nearly 1600 additional chikungunya cases, a 43 percent increase over the prior week. The total cases in India's capital is now at 5,293 cases.
At least 15 fatalities linked to chikungunya have also been reported. That said, health officials say the worst of the mosquito borne outbreak is over. Outbreak News Today

India: Japanese encephalitis kills 30 children in month; NHRC seeks report from Odisha govt

4 October - The National Human Rights Commission on Tuesday issued notice to the state government on the Japanese encephalitis outbreak in Malkangiri district. The disease claimed three more lives, children aged between two and three years, raising the death toll to 30 within a month. The commission observed that the authorities have to be sensitive towards the need to maintain cleanliness in the affected area. "There is a need to create awareness among the villagers towards the health hazard which is related to their tradition of rearing of pigs. Vaccination of the children to protect them from JE from the next year (which is proposed by the government), will be too late," the commission said.

The Times of India

Japan police probe hospital poisoning deaths

3 October - Japanese police are investigating the poisoning deaths of two elderly patients at a hospital near Tokyo, the latest in a spate of deaths on the same floor of the facility to arouse suspicion. More than a quarter of Japan’s population is aged 65 and above, putting a strain on medical and nursing facilities, where long hours and low pay discourage workers, a problem the government has vowed to tackle. September’s deaths follow the stabbing deaths of 19 residents of a home for the disabled in July, and the indictment of a former worker of a nursing home for killing three residents by throwing them off a balcony. Police have said autopsies showed poisoning as the cause of death of two 88-year-old male patients on Sept. 18 and 20. Media said the men died as they received intravenous drip injections on the fourth floor of a Yokohama hospital. Reuters

Philippines: Chikungunya outbreak hits Cavite; 400 cases detected

1 October - Cavite is fighting an outbreak of the mosquito-borne illness chikungunya, according to Department of Health (DOH) spokesperson Eric Tayag. Tayag told a radio interview yesterday that the Provincial Health Office of Cavite has declared an outbreak after detecting 400 suspected cases of chikungunya. He said the reported figure covers the start of this year up to present. The DOH is currently verifying this, he added. Inquirer.net
Haiti braces for post-hurricane cholera outbreak, a ‘potential humanitarian disaster’

5 October - After Hurricane Matthew slashed through the impoverished nation of Haiti on Tuesday, leaving death and destruction its wake, the country may be facing another deadly crisis: a surge in cholera. ... Authorities are particularly concerned about flooding from the hurricane, since Haiti doesn’t have the sewage and irrigation systems to manage the resulting mixture of water and sewage in highly populated areas. “Unfortunately cholera’s endemic in the country now, so any time you have an increase in rain, you will have an increase in cholera,” said Joanna Cherry, chief medical officer at a hospital in Port-Au-Prince, in an interview with NPR. “I feel like we’re looking at a potential humanitarian disaster just from the infectious disease outbreak that could come from this volume of water.”

Humanosphere

Haiti: Hurricane Matthew kills at least 264 in Haiti

6 October - At least 264 people have died in Haiti after the devastating hit by Hurricane Matthew on Tuesday, bringing the total death toll to 270, officials say. “The situation is catastrophic,” President Jocelerme Privert told The Miami Herald. “... Thursday the Bahamas National Emergency Agency told the Associated Press that authorities have rescued at least 30 people who were trapped in their homes by floodwaters on the island of New Providence. ... Reuters reports that many were killed by falling trees, flying debris and swollen rivers. ... Jean-Michel Vigreux, country director for CARE Haiti, said 80 percent of the buildings were destroyed in the town of Jeremie, in Grand Anse. “All phone lines and electricity are down. Access is completely cut off, and everyone is running out of food and money.” ... With a key bridge washed away and roads impassable, workers have struggled to reach the worst-hit areas, reports the Associated Press. The Weather Channel

Haiti: UN: $362 million aid package for Haiti cholera epidemic

30 September - The United Nations (UN) announced today it will give $181 million to Haiti to fight the country’s ongoing cholera epidemic, the worst in global history, Agence France-Presse (AFP) reported today. The agency will also match that amount (at a minimum) for victims and their families. Haitian health officials say studies trace the outbreak to Nepalese UN peacekeepers who dumped human waste in the Artibonite River in October 2010. The peacekeepers were helping rebuild the country after the devastating earthquake of January 2010. Though the UN took some responsibility for the epidemic this summer, it was granted
immunity from several victims' lawsuits because of its peacekeeping mission status. 

CIDRAP News Scan (second item)

Haiti: U.S. Southern Command sending troops to Haiti for disaster relief

5 October - U.S. Southern Command is sending troops to Haiti to provide relief as Hurricane Matthew tears a path through the Caribbean towards the United States. ... SOUTHCOM began moving nine Army and Marine Corps medium and heavy lift helicopters to Grand Cayman, 600 miles west of Haiti, on Tuesday. ... Those helos should begin arriving Port au Prince Thursday by way of Jamaica, depending on the weather. ... "We hope they will be on the ground tomorrow, initially to conduct surveys to figure out what are the hardest hit areas and then, because they have heavy and medium lift helicopters, help move humanitarian assistance supplies to the outlying areas - especially the areas that are cut off." Navy Times

Peru: The country that cracked its stunting crisis

30 September - ... In the seven years between 2007 and 2014 stunting among children under five dropped from 29% to 14%, according to Peru’s National Statistics Institute. ... In 2000 about one in three Peruvian children under five suffered from chronic malnutrition. Several years later, despite an estimated $200m (£154m) spent on nutrition programmes every year, the stunting rate had barely budged an inch. ... Chronic malnutrition and chronic growth retardation of children was related not just to their diet but to the high prevalence of diarrhoea due to poor sanitation, respiratory infections and poor breastfeeding and complementary feeding practices in the under-twos. ... [The] conditional cash transfer scheme ... between 2005 and 2015, more than doubled regular health and growth checkups for children in their first three years, and school attendance for older children, in return for a monthly cash payment of about $30 to the female head of the household for beneficiary families. ... Chronic malnutrition among Juntos beneficiaries under five years of age was nearly halved from 47.9% in 2009 to 25.2 in 2015, according to Peru’s statistics institute. The Guardian

Venezuela: At a loss for meds, Venezuela’s mentally ill spiral downward

1 October - ... Venezuela’s economic collapse has already decimated its health system, leaving hospitals without antibiotics, surgeons without gloves and patients dying on emergency room tables. Now, thousands of mental health patients — many of whom had been living relatively normal lives under medication — are drifting into despair and psychosis because the country has run out of the vast majority of psychiatric medicines, leaving families and doctors powerless to help them, medical experts say. Mental institutions have released thousands of patients because they can no longer treat them, according to physicians. The patients still being cared for now suffer in crumbling wards that can barely even feed them. Doctors and nurses fear violent attacks and say they have
little choice but to tie their patients to chairs, lock them up or strip them of their clothes to prevent suicides. The New York Times

Venezuela: Diphtheria kills 22 children in Bolivar state

5 October - ... [O]fficials now say that 22 children in three cities have died from diphtheria since its reappearance. To date, it is broken down as follows: 14 in Sifontes municipality, six in Caroni and two in Heres. The Ministry of Health and the Institute of Public Health expanded the vaccination campaign in schools and health centers in the region to curb the epidemic that Venezuela had eradicated two decades ago. ... Public health officials suspect that that the constant mobilization of Venezuelans to Brazil to buy food, some may have returned with the disease to Sifontes. In addition, the vaccine coverage in the region is only about 20 percent for children 3 years and younger. Outbreak News Today