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Contents

U.S. MILITARY

- Incident diagnoses of leishmaniasis, active and reserve components, U.S. Armed Forces, 2001–2016
- Integrative literature review: U.S. military women’s genitourinary and reproductive health
- Sleep-disordered breathing in the active-duty military population and its civilian care cost
- The Army's first black, female 3-star was inspired to serve by her father — and Star Trek

GLOBAL

- A taste for pork helped a deadly virus jump to humans
- Deadly, drug-resistant ‘superbugs’ pose huge threat, W.H.O. says
- Facebook artificial intelligence spots suicidal users
- In first, scientists forecast West Nile virus outbreaks
- Net loss? Agrochemicals and insecticide resistance in the fight against malaria
- Not all bug repellents are equal
- Smoke alarms ‘fail to wake children’
- WHO: Depression largest cause of disability worldwide
- EBOLA VIRUS
  - Handwashing and Ebola virus disease outbreaks
  - Malaria co-infection led to greater Ebola mortality, study says
  - Predicting Ebola infection: A malaria-sensitive triage score for Ebola virus disease
  - ZIKA VIRUS
  - Birth defects in Zika pregnancies 20 times higher than in pre-Zika years, CDC says
  - Federal ethics panel rejects proposal for human Zika challenge study
  - Scientists report varied Zika infection in Aedes aegypti mosquitoes
  - Study describes Zika birth defects; D.C. lab diluted Zika tests
  - Zika may be spread by up to 35 species of mosquitoes, researchers say

INFLUENZA

- AFHSB: DoD Seasonal Influenza Surveillance Summary
- APHC: U.S. Army Influenza Activity Report
- ECDC: Flu News Europe
- NHRC: Febrile Respiratory Illness Surveillance Update
- Review: Influenza drugs pose no risk to newborns
• USAFSAM & DHA: DoD Global, Laboratory-Based, Influenza Surveillance Program
• WHO: H7N9 antiviral resistance likely arose after treatment
• WHO swaps H1N1 for 2017-18 flu vaccine, recommends 2 new H7N9 viruses

VETERINARY/FOOD SAFETY

• CDC, states investigating foodborne sources in E. coli outbreak
• Listeria may be serious miscarriage threat in early pregnancy

WELLNESS

• Most hand sanitizer poisonings involve youngest kids
• Obesity strongly linked to 11 types of cancer
• Study reveals differences in the effects of ‘real’ and ‘sham’ acupuncture
• Taxes trimmed Mexican soda consumption for two years
• They say runners need flexibility, but you may be surprised at the latest thinking

USAFRICOM

• Africa: Poverty plus a poisonous plant blamed for paralysis in rural Africa
• Chad: Hepatitis E epidemic
• Nigeria: Lassa fever in Nigeria - latest news and data
• Somalia: Drought threatens 1.5 million Somalis; UN health agency scales up response

USCENTCOM

• Pakistan: Chikungunya reported in Pakistan
• Saudi Arabia: Three new cases of MERS reported

USEUCOM

• Europe: Your grandchildren’s pollen? Modeling the future of ragweed sensitization in Europe
• United Kingdom: Drug and mental health admissions highest for a decade
• United Kingdom: Sharp rise seen in colistin prescriptions in English hospitals

USNORTHCOM

• U.S.: Colorectal cancer rates rising sharply among Gen X and millennials
• U.S.: Deadly U.S. heroin overdoses quadrupled in five years: study
• U.S.: Firefighters and cancer: Is a risky job even riskier?
• U.S.: NIOSH guide promotes holistic view of worker health

USPACOM

• India: India issues fresh antibiotic guidelines to tackle superbug menace
• India: India sees improved sex ratio, decline in infant mortality rate - National Family Health Survey
• Nauru: Dengue fever outbreak adds to tensions on Nauru
• Philippines: Cebu, Bohol report cholera outbreak

USSOUTHCOM

• Brazil: Brazil notes 3,700 new chikungunya infections
• Brazil: Yellow fever
• Chile: Chile floods leave millions of people without drinking water in Santiago
• Haiti: Haiti reports 1900 cholera cases in January
Incident diagnoses of leishmaniasis, active and reserve components, U.S. Armed Forces, 2001–2016

February 2017 - During the surveillance period, there were 2,040 incident diagnoses/reports of leishmaniasis among members of the U.S. Armed Forces. Cutaneous leishmaniasis accounted for more than three-fifths (61.0%) of the total diagnoses/reports among active component service members and for less than half (48.0%) of the total cases among reserve component members. The visceral form of leishmaniasis represented 1.2% of the total cases. Approximately two-fifths (40.6%) of the total diagnoses/reports were classified as "unspecified" with respect to the type of leishmaniasis. The lowest annual numbers of diagnoses/reports in the past decade were seen in 2011–2016 and reached a nadir of 11 cases in 2015. During the entire surveillance period, 71.7% of the total leishmaniasis cases were diagnosed or reported during the 7 months from early autumn to the beginning of spring (September–March) in the northern hemisphere. The majority of cases acquired in the Middle East (73.6%), South/Central America (87.5%), and other or unknown locations (64.5%) were diagnosed or reported during this 7-month interval.

Integrative literature review: U.S. military women's genitourinary and reproductive health

January 2016 - This integrated literature review evaluated research on genitourinary and reproductive health care needs and gender-specific health care delivery for active duty U.S. military women, a growing population in the armed forces. ... Five broad categories were addressed across the literature: (1) pregnancy health, (2) deployment and preventive health, (3) sexually transmitted infections, (4) family planning and contraceptive services, and (5) sexual violations. Discussion: Health care challenges are evolving within a changing military environment that includes a greater integration of women. Contraceptive, genitourinary–reproductive health care access, and self-diagnostic tools for easily treatable vulvovaginal conditions can empower military women and improve quality of life. Conclusions: Studies examining military gender-specific health care delivery are limited. Research to understand factors important for women in a changing military environment can improve health care delivery and outcomes, and military readiness. Military Medicine

Sleep-disordered breathing in the active-duty military population and its civilian care cost

February 2017 - ... To quantify [the sleep-disordered breathing (SDB)] burden in the military, this study focused on the subset of sleep disorders that impact respiration during sleep and determined the prevalence and annual incidence for the entire active-duty population. ... A total of 197,183 service members were diagnosed with SDB from FY 2009 to FY 2013. Both
the annual incidence and prevalence of SDB for the active-duty military population showed upward trends for each of the years evaluated. Annual prevalence of SDB diagnoses increased from 2.4% to 4.9%. Annual incidence increased from 2.0% to 2.7% from FY 2010 to FY 2013. Notably, 72% of service members seen for SDB ranged in age from 25 to 44 years. Even though the military is about 15% female, only 8% of the patients diagnosed with SDB were female. Nearly three-quarters (73%) of service members had been previously deployed in overseas contingency operations, suggesting a possible impact on military readiness and capability. ... The increasing trend in SDB civilian care costs from FY 2009 to FY 2012 plateaud in FY 2013. The highest cost per year was $99,954,780 in FY 2012 compared with $51,911,146 in FY 2009. Federal Practitioner

The Army's first black, female 3-star was inspired to serve by her father — and Star Trek

27 February - Lt. Gen. Nadja West is the youngest of 12 adopted children — 10 of whom joined the Army — raised by a logistics warrant officer and his journalist-activist wife. Her father’s 33-year career inspired her to join the Army, and her West Pointer brother encouraged her to attend the newly integrated U.S. Military Academy. But it was Mr. Spock, the science officer on the starship Enterprise, who inspired her to go into biology. "I thought he was really cool," she told Army Times in a Feb. 22 interview. "Oh my gosh, I wanted to be a Vulcan. And I wanted to be a scientist." West, a career family medicine doctor and dermatologist who boasts airborne and air assault qualifications, became the 44th Army Surgeon General in December 2015. She is the first black female lieutenant general in the Army and the highest-ranking woman to graduate from West Point. Army Times

top of page...

GLOBAL

A taste for pork helped a deadly virus jump to humans

25 February - ... Nipah [virus] is on the World Health Organization’s list of viruses most likely to cause a global pandemic. ... Back in 1999, Nipah was spreading across Malaysia. And [Kaw Bing] Chua was the only one who knew it. But nobody believed him. Chua was still training in virology at the University of Malaya in Kuala Lumpur and didn’t have clout or confidence. ... Chua’s professor told him to throw away the experiments — that Chua was wasting time. But Chua didn’t throw away the virus. Instead he packed it up and brought the samples to the ... Centers for Disease Control and Prevention lab in Fort Collins, Colo. Scientists ... have a powerful microscope that would show exactly what type of virus was causing the problem. ... When a scientist put the samples into the microscope, Chua says a sense of great fear rushed through him: ... The image revealed the telltale signs of a frightening group of viruses: paramyxoviruses. These viruses come from livestock, not
mosquitoes. And they often infect the lungs. So they can spread rapidly through the air. … 
"Malaysia's army moved in for the country's biggest-ever animal culling," Journeyman
Pictures reported in a documentary back in 1999. "Almost 1 million pigs, shoved into pits
and shot." NPR

Deadly, drug-resistant ‘superbugs’ pose huge threat, W.H.O. says

27 February - The World Health Organization warned on Monday that a dozen antibiotic-
resistant "superbugs" pose an enormous threat to human health, and urged hospital
infection-control experts and pharmaceutical researchers to focus on fighting the most
dangerous pathogens first. The rate at which new strains of drug-resistant bacteria have
emerged in recent years — prompted by overuse of antibiotics in humans and livestock —
terrifies public health experts. Many consider the new strains just as dangerous as emerging
viruses like Zika or Ebola. ... The W.H.O. report rated research on three pathogens as "critical
priority." They are carbapenem-resistant Acinetobacter baumannii and Pseudomonas
aeruginosa, along with all members of the Enterobacteriaceae family resistant to both
carbapenems and third-generation cephalosporins. The New York Times

Facebook artificial intelligence spots suicidal users

1 March - Facebook has begun using artificial intelligence to identify members that may be
at risk of killing themselves. The social network has developed algorithms that spot warning
signs in users' posts and the comments their friends leave in response. After confirmation
by Facebook's human review team, the company contacts those thought to be at risk of
self-harm to suggest ways they can seek help. ... Facebook also announced new ways to
tackle suicidal behaviour on its Facebook Live broadcast tool and has partnered with several
US mental health organisations to let vulnerable users contact them via its Messenger
platform. BBC News

In first, scientists forecast West Nile virus outbreaks

24 February - Scientists at Columbia University's Mailman School of Public Health are the
first to report a method to accurately predict the timing and intensity of West Nile Virus
(WNV) outbreaks. ... [T]hese WNV forecasts use a computer model to generate multiple
simulations that mimic the behavior of an outbreak and are knit together to generate an
overall prediction. ... [The researchers] developed the WNV forecasting model, drawing on
field collection data documenting mosquito infection rates and reported human cases, and
accounting for transmission between mosquitoes and birds and spillover to humans. They
used the model to create retrospective forecasts for WNV outbreaks in Suffolk County, Long
Island, for 2001-2014. This model system accurately forecast mosquito infection rates prior
to the week of mosquito peak infection, and accurately predicted the seasonal total number
of human WNV cases up to nine weeks prior to the last reported case. EurekAlert
Net loss? Agrochemicals and insecticide resistance in the fight against malaria

March 2017 - In recent years more than three dozen countries have reported confirmed resistance of Anopheles mosquitoes to pyrethroids, the only class of insecticide currently used on bed nets and, until recently, the primary class used in indoor residual sprays. Even more have reported resistance to carbamates, organophosphates, or organochlorines, the other three classes used in sprays. In a few places, mosquitoes are resistant to all four classes of insecticides, leaving no chemical option to control them whatsoever. Evidence suggests the heavy use of agrochemicals—especially on cotton and vegetable farms—is one factor in growing resistance. Environmental Health Perspectives

Not all bug repellents are equal

24 February - Pay attention to the ingredients of bug sprays and other repellents, because they're not equally effective at warding off mosquitoes that carry diseases like Zika virus, researchers say. For the new study, researchers purchased and tested 11 products from Amazon.com and local stores in New Mexico. Altogether they tested five wearable devices, five sprays and one candle. Of the five wearable devices, only one - the OFF! Clip-on - significantly reduced the number of mosquitoes drawn to the participants' scents. All of the spray-on repellents significantly reduced the number of mosquitoes attracted to the participants. The tested spray-ons generally used DEET or oils like lemon eucalyptus. Like many of the wearable devices, the candle that contained citronella oil did not significantly reduce the number of mosquitoes attracted to participants' scents. The products' popularity and their ineffectiveness suggests there are not enough regulations in place to protect consumers, said [Immo] Hansen. Reuters

Smoke alarms 'fail to wake children'

23 February - Forensic scientists and fire investigators have warned that smoke alarms may not wake children. Research by Dundee University and Derbyshire Fire and Rescue found that of 34 children tested, 27 repeatedly slept through smoke detector alarms. They have developed an alarm with a lower pitch and a woman's voice, which issues a warning: "Wake up, the house is on fire." They now want 500 families to test the new alarm. Prof Niamh Nic Daeid, a forensic scientist at Dundee, said: "Boys are especially hard to wake, and we think they will respond to a human voice." Standard smoke alarms have a frequency of around 3,000Hz, but the prototype has a lower pitch of 520Hz, to which young children are more likely to respond. BBC News

WHO: Depression largest cause of disability worldwide

23 February - More than 300 million people, or more than four percent of the global population, were living with depression in 2015 - an 18-percent increase over a 10-year
period. New figures released Thursday by the World Health Organization show that depression was increasing worldwide and now was the leading cause of global mental and physical disability. ... Corresponding data released in the same report found that anxiety disorders, which cover a range of conditions, including post-traumatic stress disorder and obsessive compulsive disorder, affected more than 260 million people, which represented more than three percent of the global population. ... [Dan] Chisholm noted that anxiety disorders, which rose by 15 percent between 2005 and 2015, were now the sixth largest cause of disability and were particularly high in the region of the Americas. ... He told VOA that depression around the world was rising mainly because the world’s population was growing and aging, particularly in developing countries. VOA

**EBOLA VIRUS**

**Handwashing and Ebola virus disease outbreaks**

23 February - To prevent Ebola transmission, frequent handwashing is recommended in Ebola Treatment Units and communities. However, little is known about which handwashing protocol is most efficacious. We evaluated six handwashing protocols (soap and water, alcohol-based hand sanitizer (ABHS), and 0.05% sodium dichloroisocyanurate, high-test hypochlorite, and stabilized and non-stabilized sodium hypochlorite solutions) for 1) efficacy of handwashing on the removal and inactivation of non-pathogenic model organisms and, 2) persistence of organisms in rinse water. ... HTH performed most consistently well, with significantly greater log reductions than other handwashing protocols in three models. However, the magnitude of handwashing efficacy differences was small. ... Chlorine resulted in significantly less persistence of *E. coli* in both conditions and Phi6 without soil load in rinse water (p<0.001). Thus, chlorine-based methods may offer a benefit of reducing persistence in rinse water. PLOS

**Malaria co-infection led to greater Ebola mortality, study says**

1 March - According to a new study in The Lancet Infectious Diseases, Ebola patients co-infected with malaria were more likely to face increased mortality rates. The study was based on observations made at three Ebola treatment centers in Sierra Leone in 2014 and 2015. The study looked at 1,524 cases admitted to treatment centers during the height of the 2013-2016 Ebola epidemic in West Africa. Of those cases, 1,114 patients tested negative for Ebola, but 365 (33%) were positive for malaria. Of the 254 patients with Ebola, 21% (53) also had malaria. For patients with both febrile diseases, mortality rates were high, about 66%. Patents with just Ebola suffered from a mortality rate of 52%. CIDRAP News Scan (second item)
Predicting Ebola infection: A malaria-sensitive triage score for Ebola virus disease

23 February - ... Under the current triage protocol, half the patients allocated to high-risk "probable" wards were EVD(-): a misclassification speculated to predispose nosocomial EVD infection. ... This retrospective cohort study analyses the clinical characteristics of 566 patients admitted to the GOAL-Mathaska ETC in Sierra Leone. ... Of the 566 patients, 28% were EVD(+) and 35% were malaria(+). Malaria was 2-fold more common in EVD(-) patients (p<0.05), and thus an important differential diagnosis. ... [C]ohorts revealed 7 characteristics with the highest odds for EVD infection, namely: reported sick-contact, conjunctivitis, diarrhoea, referral-time of 4–9 days, pyrexia, dysphagia and haemorrhage. Oppositely, myalgia was more predictive of EVD(-) or EVD(-)/malaria(+). Including these 8 characteristics in a triage score, we obtained an 89% ability to discriminate EVD(+) from either EVD(-) or EVD(-)/malaria(+). PLOS

ZIKA VIRUS

Birth defects in Zika pregnancies 20 times higher than in pre-Zika years, CDC says

2 March - Pregnancies of women in the United States infected with the Zika virus are about 20 times more likely to result in babies with certain birth defects, compared with the prevalence of these birth defects before the Zika epidemic swept through the Americas, according to a report released Thursday. Researchers at the Centers for Disease Control and Prevention are trying to determine how common these birth defects, such as microcephaly, brain abnormalities, eye defects and central nervous system problems, were in the years before the Zika outbreak. ... The CDC report provides a baseline reference to interpret the impact of Zika on the prevalence of these birth defects in the United States. The Washington Post

Federal ethics panel rejects proposal for human Zika challenge study

28 February - A federal ethics committee that reviewed a research proposal to experimentally infect humans with Zika virus to help gauge the best approach to a vaccine has rejected the application, according to a report posted last week and first reported today by Stat. The expert panel, part of the National Institutes of Health (NIH), in December reviewed an application from the National Institute of Allergy and Infectious Diseases (NIAID) and Walter Reed Army Institute of Research. In a 43-page report posted on the NIH Web site, the ethics panel said a human challenge study could be acceptable for studying the virus and vaccines against it in the future, but for now, studying the vaccine in regions where it is already spreading is a better option. The group also aired concerns about the
potential risk to participants and others not involved in the study, such as sexual partners of the study subjects. CIDRAP New Scan (first item)

Scientists report varied Zika infection in Aedes aegypti mosquitoes

1 March - In a surprise finding, Zika researchers found that the African strain of the virus was more infectious than the Asian strain—which is responsible for the current outbreak in the Americas—and only Aedes aegypti mosquitoes from the Dominican Republic and not those from the United States or Brazil transmitted the Asian strain. The international researcher group ... used Zika virus strains from Senegal (the African strain) and Cambodia and Mexico (the Asian strain). They fed Ae aegypti mosquitoes from the three countries blood meals from viremic mice and used artificial blood that contained one of the three Zika strains. The scientists found that, across all three mosquito populations, the African virus produced a significantly higher level of infection in the insects and a higher percentage of infectious saliva. They also found that only mosquitoes from the Dominican Republic transmitted the two Asian strains. CIDRAP News Scan (third item)

Study describes Zika birth defects; D.C. lab diluted Zika tests

27 February - ... [Brazilian] researchers examined 176 infants whose head circumferences were less than 32 centimeters at birth, 87 of whom were confirmed to have lab-confirmed [congenital Zika syndrome]. ... Of the babies born with CZS, 71 (82%) had severe microcephaly. More than three quarters of mothers (66) reported Zika symptoms in pregnancy, including fever and rash. All 87 infants had brain calcification seen on CT or ultrasound (99%), and 44% had findings of ventriculomegaly, a condition in which cerebrospinal fluid structures in the brain are larger than normal. ... A total of 40.3% of the infants had vision problems. ... The Washington Post published an in-depth story explaining how a simple mistake led to hundreds of samples from pregnant women at a D.C. public health lab to be labeled as negative for Zika virus. The 300 samples were treated with the wrong solution, marked "D" for diluted, effectively watering them down and making even a positive test appear negative. At least nine false-negatives have been identified during the retesting process. The Post reports the wrong solution was used for at least 6 months, adding that an inexperienced staff and lack of leadership led to the public health "debacle." CIDRAP

Zika may be spread by up to 35 species of mosquitoes, researchers say

28 February - Zika may be spread by as many as 35 species of mosquitoes, including seven found in the United States, according to a forecasting model created by University of Georgia ecologists. ... Most scientists ... believe Zika is primarily spread through the bite of an infected Aedes aegypti or Aedes albopictus species of mosquito. ... But University of
Georgia ecologists suspect that there must be other types of mosquitoes capable of spreading Zika because an outbreak of the virus on Yap Island in 2007 was driven by a different species, *Aedes hensilli* — and because other viruses closely related to Zika are spread by more than nine mosquito species, on average. The Georgia researchers created a model to test their theory, and using mathematical analysis, predicted that 35 species of mosquitoes may be able to spread Zika. Seven of those mosquito species are found in the United States. *Miami Herald*

**INFLUENZA**

**AFHSB: DoD Seasonal Influenza Surveillance Summary**

For Week 8:

- NORTHCOM: Influenza activity varied across the country, but was moderate to high in several states.
- EUCOM: Influenza activity was minimal to low in EUCOM with the exception of Italy which had moderate activity.
- PACOM: Influenza activity was minimal in Japan and Guam, but low activity was seen for the ROK and Hawaii.
- CENTCOM and AFRICOM: Data for these CCMDs was unavailable at the time of this report.
- SOUTHCOM: Data for SOUTHCOM was unavailable at the time of this report.  

**APHC: U.S. Army Influenza Activity Report**

For the week ending 18 February 2017 (Week 7):

All regions, except RHC-A and RHC-P, demonstrated a decrease in the number of influenza A positive specimens

- **ILI Activity:** Army ILI (influenza-like illness) outpatient visits in week 7 were 7% higher than the same week last year.
- **Influenza cases:** Nine hospitalized influenza-associated cases were reported to APHC through DRSi in week 7: 2 AD Service Members and 7 non-AD beneficiaries.
- **Viral specimens:** During week 7, 1047 of 3136 (33%) lab specimens tested positive for respiratory pathogens. Of 801 influenza A-positive specimens, RHC-A reported 411 (51.3%), followed by RHC-C (333, 41.6%), RHC-P (29, 3.6%), RHC-E (27, 3.4%), and CENTCOM (1, 0.1%). *APHC*
CDC: Flu View - Weekly U.S. Influenza Surveillance Report

During week 7 (February 12-18 2017), influenza activity decreased slightly but remained elevated in the United States.

- **Viral Surveillance:** The most frequently identified influenza virus subtype reported by public health laboratories during week 7 was influenza A (H3). The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased slightly but remained elevated.

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

- **Influenza-associated Pediatric Deaths:** Five influenza-associated pediatric deaths were reported. [CDC](https://www.cdc.gov/flu/weekly/)

ECDC: Flu News Europe

Week 7/2017 (13-19 February 2017)

- Influenza activity remained elevated, but lower than last week, across the region.
- The proportion of influenza virus detections among sentinel surveillance specimens decreased to 36% from 44% in the previous week.
- The great majority of detected and subtyped influenza viruses were A(H3N2) and while the proportion of type B viruses increased, as commonly seen in the second half of an influenza season, their numbers remained low.
- The number of hospitalized laboratory-confirmed influenza cases reported, primarily in people aged 65 years or older, continued to decrease. [European Center for Disease Prevention and Control/WHO](https://ecdc.europa.eu)

NHRC: Febrile Respiratory Illness Surveillance Update

For 2017 Week 7 (through 18 February 2017):

- **Influenza:** Six cases of NHRC laboratory-confirmed influenza (A/H3) among US military basic trainees at MRCD Parris Island.
- **FRI surveillance** at all eight U.S. military basic training centers indicated FRI rates were elevated at Fort Jackson, MCRD San Diego, MCRD Parris Island, and CGTC Cape May. [Naval Health Research Center](https://www.nhrc.ch.us/)

Review: Influenza drugs pose no risk to newborns

1 March - Neuraminidase inhibitors, the antiviral drugs given to fight and prevent influenza, pose no safety risks to fetuses or newborns, according to a new study published today in *BMJ.* ... The study was based on monitoring birth outcomes in 6,000 women in France and Scandinavia who were prescribed any of the two most common neuraminidase inhibitors, oseltamivir (Tamiflu) or zanamivir (Relenza), during pregnancy, and 700,000 women who did not receive prescriptions during a pregnancy in the same period (2008 to 2010). Researchers
found no evidence of negative birth outcomes, including low Apgar score, low birth weight, preterm birth, or birth defects among the women who took antivirals. The results were the same for either drug exposure. **CIDRAP News Scan** (first item)

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

During 5 - 18 February 2017 (Surveillance Weeks 6 & 7), a total of 608 specimens were collected from 46 locations. Results were finalized for 455 specimens from 44 locations. During Week 6, one influenza A(H1N1)pdm09, 139 influenza A(H3N2) and 16 influenza B viruses were identified. During Week 7, one influenza A(H1N1)pdm09, 109 influenza A(H3N2) and 14 influenza B viruses were identified. Approximately 46% of specimens tested positive for influenza during Week 6. Approximately 47% of specimens tested positive for influenza during Week 7. The influenza percent positive for the season is approximately 33%. **US Air Force School of Aerospace Medicine & Defense Health Agency**

**WHO: H7N9 antiviral resistance likely arose after treatment**

1 March - Officials from the World Health Organization (WHO) today revealed new information on antiviral resistance and other virus changes related to China's surge in H7N9 avian flu infections, but they said the shifts so far haven't changed the epidemiologic or clinical patterns of the disease in humans. At a media telebriefing today, a WHO expert said that recently detected signs of resistance to antivirals like oseltamivir (Tamiflu) and zanamivir (Relenza) likely arose after treatment with antivirals in patients with H7N9. ... So far, at least 460 H7N9 infections have been reported in China’s fifth wave, its biggest yet, with the total number of cases reported since October accounting for one third of all cases since the novel virus was first detected in humans in 2013, [Wenqing] Zhang said. **CIDRAP**

**WHO swaps H1N1 for 2017-18 flu vaccine, recommends 2 new H7N9 viruses**

2 March - The World Health Organization’s (WHO’s) flu vaccine advisory group today recommended changing one strain—the 2009 H1N1 component—for the Northern Hemisphere’s 2017-18 flu season, which mirrors a recommendation it made last September for the Southern Hemisphere’s upcoming season. Also, the advisors reviewed the latest genetic information about recent avian and other zoonotic flu viruses and recommended two new candidate vaccine viruses for H7N9 avian flu, plus three new ones for other potential pandemic threats. **CIDRAP**

top of page...
VETERINARY/FOOD SAFETY

CDC, states investigating foodborne sources in E. coli outbreak

1 March - A multi-state cluster of at least 10 people infected with E. coli bacteria has been identified and public health officials are interviewing victims about possible foodborne sources. As of this afternoon, patients had been identified in four states, said a spokeswoman with the Centers for Disease Control and Prevention. “This investigation is ongoing, and we will update the public when more information becomes available,” she said. “CDC and state and local public health partners are continuing laboratory surveillance through PulseNet to identify additional ill people and to interview those people about foods they ate before they got sick.” Food Safety News

Listeria may be serious miscarriage threat in early pregnancy

23 February - New research ... has found that Listeria monocytogenes food poisoning can be a serious miscarriage threat in early pregnancy. Scientists ... studied how pathogens affect fetal development and change pregnancy outcomes. ... Researchers think that inflammation caused by the maternal immune response to the fast-moving Listeria affects the placenta, stopping it from protecting the fetus. The placenta usually acts as a barrier against bacteria and harmful substances, but the researchers think that the mother's immune system's attempt to clear the bacteria actually damages the placenta, leaving the fetus open to harmful bacteria and toxins. ... [B]ecause the mother’s illness is so mild and she may even be asymptomatic, the fetus may be infected before the mother even knows she is sick.

Food Poisoning Bulletin

WELLNESS

Most hand sanitizer poisonings involve youngest kids

2 March - More than 90% of all poisonings from alcohol-based hand sanitizer products involved the youngest children, up to 5 years of age, said CDC researchers. Writing in the Morbidity and Mortality Weekly Report, they noted that there were more intentional exposures in children ages 6 to 12 years, which suggested the potential for abuse of these products by older kids. They reviewed data from the National Poison Data System and found that a higher portion of these older children reported adverse effects from exposure to alcohol-based hand sanitizer than younger children (mainly ocular irritation, vomiting
and conjunctivitis). Given that older children were more likely to report intentional exposure as well as more adverse effects, the authors concluded that teachers and parents may need to more closely monitor the use of alcohol-based hand sanitizer in older children.

**MedPage Today**

**Obesity strongly linked to 11 types of cancer**

1 March - People who are obese have a greater risk of developing and dying from several types of cancer including malignancies of the breast, ovary, kidney, pancreas, colon, rectum and bone marrow, a research review confirms. Cancer is a leading cause of death worldwide, and the prevalence of obesity has more than doubled over the past generation. Even though excess weight is thought to influence the odds of developing and dying from a wide variety of tumors, the study found “strong evidence” supporting this connection for just 11 cancers. … For the current study, researchers analyzed results from 204 previously published studies exploring the connection between obesity, weight gain, waist circumference and 36 different cancers. … They found the strongest links were between obesity and malignancies of the digestive organs and for hormone-related tumors in women. **Reuters**

**Study reveals differences in the effects of ‘real’ and ‘sham’ acupuncture**

2 March - … A large body of clinical research exploring acupuncture for chronic pain disorders has demonstrated that it may be marginally better than a placebo procedure in reducing pain ratings. But questions still remain: How exactly does acupuncture work? Is it any better at improving objective outcomes for chronic pain?“ To get to the root of these questions, [Vitaly] Napadow and colleagues performed a sham controlled acupuncture neuroimaging study of carpal tunnel syndrome (CTS), a neuropathic pain disorder. … [T]he researchers found that both real and sham acupuncture improved patient-reported CTS symptoms. However, there were notable differences in physiologic measures. Real acupuncture at the affected hand led to measurable improvements in outcomes both at the affected wrist and in the brain, while acupuncture at the opposite ankle produced improvement at the wrist only. Brain remapping immediately after real acupuncture was linked to long-term improvement in CTS symptoms. No physiologic improvements resulted from sham acupuncture. **Harvard Gazette**

**Taxes trimmed Mexican soda consumption for two years**

1 March - A soda tax has continued to help reduce Mexico’s consumption of unhealthy beverages, researchers say. Purchases of sugar-sweetened beverages were down nearly 10 percent in the second year of the tax, a new study shows. … [S]enior author Shu Wen Ng … and her team estimated that Mexicans bought 9.7 percent less sugary drinks in 2015 than they would have before the tax took effect. In an effort to wean consumers off sugary drinks and reduce the epidemics of obesity and diabetes, Mexico imposed a peso-per-liter excise tax at the beginning of 2014. … The International Council of Beverages Associations, which represents the soda industry, disputed the new study’s results in a prepared statement.
“First and foremost, this study does not show any impact from the tax on the obesity rates in Mexico,” the statement says. Reuters

They say runners need flexibility, but you may be surprised at the latest thinking

25 February - For years, runners have believed that their sport makes them too tight and that they should turn to yoga to lengthen their muscles, become more flexible and thereby develop into better runners. It turns out, though, that the opposite may be true: Coaches and physical therapists now say that bending like Gumby may, in fact, cause problems. ... As [Steve] Magness explains it, our muscles and tendons are designed like springs. As our feet hit the ground during a run, those springs release stored energy and propel us forward. If the springs aren’t tight enough, they can’t do their jobs properly. ... Instead of seeking extreme flexibility, says Gene Shirokobrod, a physical therapist in Maryland, runners should focus on exercises that target abilities that need improvement, such as strength and range of motion. Those attributes are different from flexibility, and they’re more important for runners. The Washington Post

USAFRICOM

Africa: Poverty plus a poisonous plant blamed for paralysis in rural Africa

23 February - ... In the DRC, cassava is served as a doughy ball called fufu that accompanies stews and greens like cassava leaves and spinach. The dish begins when women unearth thick, starchy cassava roots from the soil, and soak them in a stream for about a week. Then they dry the roots in the sun, and next beat them into flour. Add water, mix, and the fufu is ready. Whether or not it is intentional, women make cassava safe to eat when they soak the roots. Over time, water degrades cyanide found in bitter varieties of the plant. ... But soaking them requires a stable location, a safe place they can stay at for at least a few days. And barring that, hungry people eat the roots without processing them sufficiently. ... When asked how to prevent konzo, [Jean-Paul] Mugisho said, “The government needs to stop the army and warring groups.” NPR

Chad: Hepatitis E epidemic

25 February - The Ministry of Public Health of Chad has officially declared an epidemic of Hepatitis E in the region of Salamat, south-eastern Chad. The epidemic has already claimed the life of 12 people, including 4 pregnant women. A total of 956 cases have been identified so far. MSF and UNICEF are currently working with the authorities to provide a response, in
a context of insufficient epidemiological surveillance, very limited presence of medical actors and lack of safe access to water and sanitation. ReliefWeb

Nigeria: Lassa fever in Nigeria - latest news and data

1 March - During the week ending Feb. 11, the Nigeria Centre for Disease Control (NCDC), Nigeria Federal Ministry of Health reported the first case of Lassa fever in Kaduna State in the ongoing National Lassa fever outbreak. More recently, Nigerian media report a confirmed Lassa fever death in a 22-year old woman from Calabar, the capital of Cross River State on Feb. 22. The Lassa fever outbreak is currently active in 11 States across Nigeria. Since the onset of the outbreak in December 2016, 215 suspected cases have been reported. Of these, 63 cases have been classified as confirmed and five (5) cases classified as probable cases, according to the NCDC as of Feb. 11. There have been 37 deaths recorded (32 in confirmed cases and 5 in probable cases). The case fatality rate for all cases is 22.8% and for all confirmed/probable cases is 54.4%. Outbreak News Today

Somalia: Drought threatens 1.5 million Somalis; UN health agency scales up response

27 February – Less than half of the people in Somalia have access to basic health services, the United Nations health agency today said, announcing that it is scaling up its response in the country amid a severe drought and worsening food crisis. The UN agency said that it is providing “all possible support” to address the ongoing challenges. That includes sending in rapid response teams to areas of greatest threat. That includes sending medicines and medical supplies to health facilities in drought-affected areas. Some 1.5 million people are believed to be affected by the severe drought and worsening food crisis. More than 400,000 of those people are malnourished children. In addition, the drought conditions are causing epidemic-prone diseases to spread. These include cholera and measles. According to WHO, since early January, more than 6,000 cases of cholera have been reported, as well as more than 2,500 cases of suspected measles. UN News Centre

Pakistan: Chikungunya reported in Pakistan

27 February – Pakistan’s Ministry of National Health Services, Regulations and Coordination has reported cases of Chikungunya in the country for the first time. A total of 803 cases have been reported since 19 December 2016 in the Sindh province, including 29 cases
reported in various towns in Karachi during the week of 10-16 February 2017. Of the 92 samples sent to the National Instituted of Health for testing, 71 have been laboratory-confirmed positive for Chikungunya virus. WHO

Saudi Arabia: Three new cases of MERS reported

28 February - The Saudi Arabian Ministry of Health (MOH) announced three new cases of MERS-CoV yesterday, and two involved direct contact with camels. The cases are from three different cities. ... The cases raise the country’s MERS total to 1,567 cases, including 651 deaths. Eleven patients are still being treated for the disease. CIDRAP News Scan (third item)

top of page...

USEUCOM

Europe: Your grandchildren’s pollen? Modeling the future of ragweed sensitization in Europe

March 2017 - Many plants are growing faster, flowering earlier, and producing more pollen with rising atmospheric levels of carbon dioxide (CO2) and increasing surface temperatures. ... [S]cientists estimate how changing growth trends in ragweed may affect future pollen allergies in Europe, where the plant is a nonnative invasive weed. According to their modeled predictions, ragweed sensitization could more than double on the continent, from about 33 million people today to 77 million by the period 2041–2060. ... [T]he biggest proportional increases will occur in places that currently do not have ragweed.

United Kingdom: Drug and mental health admissions highest for a decade

28 February - More patients are being admitted to hospital in England for drug-related mental health issues or poisoning than at any time in the past 10 years. Official figures reveal 15,074 cases of people in hospital with illicit drug poisoning in 2015-16, 51% more than 2005-06. Mental health issues had drugs as a cause in 81,904 cases. Public health experts say falling investment in drug treatment services may explain the rise. Deaths related to drug misuse are at their highest level since comparable records began in 1993, NHS Digital said. Yet in a summary accompanying the statistics NHS Digital said that while the number of admissions to hospital had increased, drug use was actually falling. "In 2015-16, around 1 in 12 (8.4%) adults aged 16 to 59 had taken an illicit drug in the last year." it said. ... This level of drug use was similar to 2014-15, but is significantly lower than a decade ago." BBC News
United Kingdom: Sharp rise seen in colistin prescriptions in English hospitals

1 March - Prescriptions for the last-resort antibiotic colistin rose by 40% from 2014 to 2015 in English hospitals, according to a story by the Bureau of Investigative Journalism. Data from Public Health England obtained by the bureau showed that defined daily doses of colistin rose from 346,143 in 2014 to 485,024 in 2015, and have been on the rise every year since 2010. Medical experts tell the bureau that the rise in colistin prescriptions is an indication that multidrug-resistant infections—such as carbapenem-resistant Enterobacteriaceae—are becoming more common. Colistin, which was introduced in the early 1970s and then withdrawn because it can cause damage to the kidneys, is considered a last option for treatment of infections that don’t respond to other antibiotics. ... The bureau also reports that the UK’s Veterinary Medicines Directorate last year licensed three new products containing colistin for use on British farms.
CIDRAP Stewardship/Resistance Scan (third item)

top of page...

USNORTHCOM

U.S.: Colorectal cancer rates rising sharply among Gen X and millennials

28 February - Rates of colon and rectal cancer, which overall have been declining for decades in the United States, are instead rising sharply among young and middle-aged adults, according to a new study that startled researchers and is sparking questions about whether screening should start earlier than age 50. The study ... found that between the mid-1980s and 2013, colon cancer rates increased about 1 to 2 percent per year for people in their 20s and 30s. Rates for middle-aged adults also rose, but at a slower pace. Rectal cancer rates climbed even faster in recent decades, at about 3 percent per year for people in their 20s and 30s and 2 percent annually for those ages 40 to 54. As a result, three in 10 new cases of rectal cancer now are diagnosed in patients younger than 55 — double the proportion in 1990. By contrast, rectal cancer rates in adults ages 55 and older have dropped for four decades. The Washington Post

U.S.: Deadly U.S. heroin overdoses quadrupled in five years: study

24 February - The number of deadly heroin overdoses in the United States more than quadrupled from 2010 to 2015, a federal agency said on Friday, as the price of the drug dropped and its potency increased. There were 12,989 overdose deaths involving heroin in
2015, according to the National Center for Health Statistics, compared with 3,036 such fatalities five years earlier. Friday’s study found that the percentage of overdose deaths from prescription drugs such as oxycodone and hydrocodone fell to 24 percent in 2015 from 29 percent five years earlier. In 2015, the four states with the highest drug overdose death rates were West Virginia, New Hampshire, Kentucky and Ohio, the study said. While overdose death rates increased for all age groups, those aged 55 to 64 saw the largest percentage increase, the study found. Reuters

U.S.: Firefighters and cancer: Is a risky job even riskier?

24 February – … [A] growing number of jurisdictions [are] stating that because certain cancers in firefighters occur at such high rates, they should be presumed to come from on-the-job exposure. Laws in nearly 40 states, including Maryland and Virginia, have expanded medical, workers’ compensation and disability coverage for such cancer cases, and departments across the country are revamping training and how they handle gear to try to reduce risks. … This month, a bill to create a national registry of firefighters diagnosed with cancer was introduced with bipartisan support to help track and research the issue, and in January, Ohio’s governor signed into law a measure extending firefighters’ coverage for workplace cancers. … [M]unicipal governments … are concerned about setting a precedent for other public employees and triggering spiraling costs. The Washington Post

U.S.: NIOSH guide promotes holistic view of worker health

22 February - … That’s the premise and promise of Fundamentals of Total Worker Health Approaches: Essential Elements for Advancing Worker Safety, Health, and Well-Being, created by the National Institute for Occupational Safety and Health (NIOSH). The workbook provides a “user-friendly entry point” into total worker health with examples and tips, such as, “design programs with a long-term outlook to ensure sustainability. Short-term approaches have short-term value.” It also includes a self-assessment tool and resources to develop an action plan and measure progress specific to the organization. A new conceptual model—a “hierarchy of controls”—lists ways to minimize or eliminate exposure to hazards in the workplace, from least effective (e.g., providing personal protective equipment) to most effective (e.g., physically removing the hazard). Federal Practitioner

India: India issues fresh antibiotic guidelines to tackle superbug menace

28 February - India, one of the world’s biggest consumers of antibiotics, has issued new national guidelines on their use as part of a drive to fight the rise of drug-resistant
superbugs. ... Issued by India’s central medical research body - the Indian Council of Medical Research (ICMR) - the guidelines giving directions on antibiotic use, dosage and duration of treatment have been sent to 20 hospitals so far, officials said. ... The advisory, put together by leading medical experts from across the country, will be revised and reissued once feedback from hospitals starts coming in, officials said. In the last few years, hospitals in India have recorded infections resistant to last-resort carbapenems and colistin antibiotics in their intensive care units. Reuters

India: India sees improved sex ratio, decline in infant mortality rate - National Family Health Survey

1 March – A latest survey by the government has shown positive trends in key health indicators, including an improvement in sex ratio at birth and a decline in infant mortality rate during 2015-16. ... “Infant Mortality Rate (IMR) declined from 57 to 41 per 1,000 live births between NFHS-3 (2005-06) and NFHS-4. IMR has declined substantially in almost all the states during the last decade. It dropped by more than 20 percentage points in Tripura, West Bengal, Jharkhand, Arunachal Pradesh, Rajasthan and Odisha.” ... Similarly, institutional births “dramatically” increased by 40 percentage points from 38.7 per cent in NFHS-3 to 78.9 per cent in NFHS-4. ... The survey also found that there was a decline in percentage of underweight children by 7 percentage points, a consequence of improved child feeding practices and focus on nutritional aspects of children, Mishra said. ... "However, the contraceptive prevalence rate decreased by 2 percentage points from NFHS-3 to NFHS-4 (54 per cent), but pills and condom usage have shown increasing trend," the survey said.

Nauru: Dengue fever outbreak adds to tensions on Nauru

28 February - Dengue fever, a mosquito borne illness, has spread across islands in the South Pacific, including among detainees held by Australia on Nauru. So far authorities have reported two deaths in New Caledonia and other islands in the region have experienced hundreds of infections in the past two weeks. On Nauru Island 70 people are estimated to be infected according to The Guardian, at least 10 of whom are refugees and asylum seekers in the island’s detention center. Reports suggest up to eight people have been airlifted to Australia, however, authorities have not confirmed any of the figures in Nauru.

Philippines: Cebu, Bohol report cholera outbreak

2 March - Two areas in the Central Visayas are reporting cholera outbreaks, according to an ABS-CBN News report Wednesday. Nearly 200 cases of the serious bacterial infection have been reported from areas of Cebu and Bohol islands. Health officials say 75 people from Sitio Badjao Bridge, Bohol were hospitalized and treated last week, while on Carnaza Island, Cebu, more than 100 people were affected. This follows a report less than two weeks ago from Korean health authorities that said travelers from Cebu were infected with cholera. ... Health officials have provided the areas with new water containers and water-purification
Brazil: Brazil notes 3,700 new chikungunya infections
27 February - ... Brazil reported 3,754 cases [of chikungunya] in the first 4 weeks of 2017, the first numbers it has tallied so far this year. In 2016 Brazil accounted for more than 80% of all cases in the Americas. All told, countries and territories in the Americas have reported 4,547 cases so far this year, according to a Feb 24 PAHO report. Of those, 4,114 are new in the most recent 2 weeks, with the vast majority of those noted in the latest report. PAHO also reported the first chikungunya-related death of the year, also in Brazil.

Brazil: Yellow fever
24 February - From 1 December 2016 to 22 February 2017, a total of 1336 cases of yellow fever infection (292 confirmed, 920 suspected, and 124 discarded), including 215 deaths (101 confirmed, 109 suspected, 5 discarded), have been detected in six states. ... The estimated case fatality rate is 35% for confirmed cases and 12% for suspected cases. To date, the majority (86%) of the confirmed cases are men and of which, approximately 81% are aged between 21 and 60 years. From 1 December 2016 to 22 February 2017, a total of 883 epizootics of non-human primates (NHP) have been reported, of which 337 were confirmed for yellow fever by laboratory confirmation or epidemiological link.

Chile: Chile floods leave millions of people without drinking water in Santiago
25 February - Millions of people are without water after heavy rains struck Chile over the weekend during the country's usually dry summer months, leaving three people dead and at least 19 missing. The rains, which caused rivers to overflow their banks in mountain valleys near Chile's capital, Santiago, had isolated 373 people, the Onemi emergency service said late on Sunday. The drinking-water supply for over a million households in Santiago had been affected, and Aguas Andinas, the company that provides water to the capital, said rains were making repairs difficult. Agence France-Presse estimated four million people were affected.

Haiti: Haiti reports 1900 cholera cases in January
27 February - Haiti has reported 1,897 cholera cases through January, according to the Pan American Health Organization (PAHO). 28 deaths were reported during this period. Since
the cholera outbreak began in October 2010, months after the Jan. 12, 2010 earthquake, 797,691 cholera cases have been reported in Haiti, including 9,439 deaths.

Outbreak News Today

top of page...