

16 January 2015

# Army Public Health Weekly Update

U.S. Army Public Health Command



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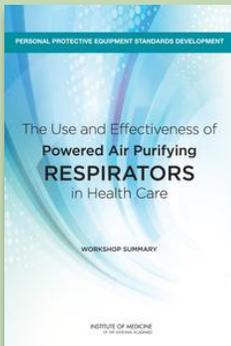
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## The Use and Effectiveness of Powered Air Purifying Respirators in Health Care

The *Use and Effectiveness of Powered Air Purifying Respirators in Health Care* is the summary of a workshop to explore the practices and research related to powered air purifying respirator (PAPRs) and potential updates to performance requirements.

The report focuses on efficacy, current training, maintenance, supplies, and possible enhancements and barriers to use in inpatient, clinic, nursing home, and community (home) settings.



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## Classified Version of the Weekly Update

An Army Public Health Weekly Update is available with articles classified up to the **SECRET** level from the USAPHC SIPRNet site:

<http://phc.army.smil.mil>

Look under Hot Topics & Current Issues.

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

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## U.S. MILITARY

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### ‘Brain zapping’: Veterans say experimental PTSD treatment has changed their lives

12 January - ... The 32-year-old veteran, who also suffered traumatic brain injury in the blast, credits his recovery [from post-traumatic stress disorder] to something called magnetic resonance therapy, or MRT — a procedure that pulses energy from magnetic coils into his cortex. He and scores of other combat vets have been drawn by word of mouth to a private clinic here for what some of them call “brain zapping.” ... Published studies in recent years — one with 20 PTSD patients, another with 30 — reported significant reduction in symptoms in patients receiving this TMS care. ... In June, a National Institutes of Health advisory group on the president’s brain initiative listed magnetic treatment as among those that “need to be better elucidated” as regards the potency, scale and duration of their effects. [Washington Post](#)

### Military suicides up slightly in 2014

13 January - Suicides among members of the active-duty military personnel rose slightly in 2014, led by increases in the number of sailors and airmen who took their own lives, new Defense Department figures show. There were fewer suicides by Army soldiers and Marines, the two services that have seen the most combat in Iraq and Afghanistan over the last decade. According to preliminary Pentagon data, there were 288 confirmed and suspected suicides by active-duty personnel in 2014, compared with 286 in 2013. Both totals, however, represent a sharp drop from the 2012 number of 352. [Military Times](#)

### Number of tuberculosis tests and diagnoses of latent tuberculosis infection in active component service members, U.S. Armed Forces, January 2004–December 2014

December 2014 - A total of 5,501,349 TB tests were performed on 4,569,791 service members during the course of the surveillance period; 58,118 service members (1.3%) received a diagnosis of LTBI. During 2004-2013, the annual percentage of service members tested for TB who received an LTBI diagnosis fluctuated between a low of 0.9 % in 2011 to a high of 1.6% in 2006. ... Throughout the surveillance period, the percentage of Asian/Pacific Islanders who were diagnosed with LTBI was two to five times that of other race/ethnicity groups. ... The number of tests performed by the Army declined by 72% between 2013 and 2014; similar declines of lesser magnitude were observed in the Navy (24%), Air Force (27%), and Marine Corps (32%). [Medical Surveillance Monthly Report](#)

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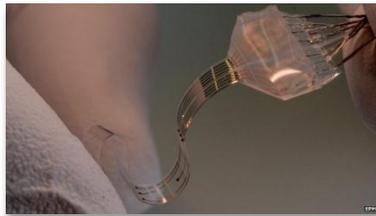
## Breakthrough on chronic pain

12 January - For the first time, scientists have found evidence of neuroinflammation in key regions of the brains of patients with chronic pain, according to a new study from Massachusetts General Hospital (MGH), a Harvard affiliate. By showing that levels of an inflammation-linked protein are elevated in regions known to be involved in the transmission of pain, the study paves the way for the exploration of potential new treatment strategies. Published online in the journal *Brain*, the study also identifies a possible way around one of the most frustrating limitations in the study and the treatment of chronic pain — the lack of an objective way to measure the presence or intensity of pain. [Harvard Gazette](#)

## Doing more for patients often does no good

12 January - ... In the United States, when it appears that someone might be in trouble, emergency medical services are dispatched. Many patients die from an out-of-hospital cardiac arrest, but steps taken out in the field can make a difference. Basic life support, ... involving the use of bag valve masks, cardiopulmonary resuscitation and automated external defibrillators — can absolutely save a life. Advanced life support, usually requiring a trained paramedic, involves much more. Trained providers may put in endotracheal breathing tubes; start intravenous lines; deliver sophisticated cardiac drugs; and defibrillate patients manually. ... Researchers examined Medicare patients who were billed for either advanced life support or basic life support before admission to the hospital from 2009 through most of 2011. ... What they found was that about 13 percent of patients who received basic life support survived and were discharged versus 9 percent of patients who received advanced life support. More patients who received basic life support lived for 90 days after discharge, too (8 percent versus 5 percent). Basic life support patients also had better neurological outcomes. [New York Times](#)

## Elastic implant 'restores movement' in paralysed rats



9 January - An elastic implant that moves with the spinal cord can restore the ability to walk in paralysed rats, say scientists. Implants are an exciting field of research in spinal cord injury, but rigid designs damage surrounding tissue and ultimately fail. A team at Ecole Polytechnique Federale de Lausanne has developed

flexible implants that work for months. ... The latest innovation, described in the journal *Science*, is an implant that moves with the body and provides both chemical and electrical stimulation. When it was tested on paralysed rats, they moved again. ... The implant is built from elastic silicone and the wiring is made from "microcracked" gold. Normal wiring would not stretch, but tiny cuts in the surface make it flexible. [BBC News](#)

## From vertigo to tinnitus, ear ailments are new focus for drugs

9 January - ... [There are] a growing cadre of start-ups pursuing drugs for the ear, an organ once largely neglected by the pharmaceutical industry. ... But challenges remain. Efforts in the past to develop ear drugs, to the extent they were made, largely failed. The inner ear, which is crucial to both hearing and balance, is almost impenetrable, making it difficult to study or for drugs to enter. ... One sponsor of research in the area is the Defense Department, which cannot redeploy many soldiers because they have hearing loss. At Fort Jackson, S.C., drill sergeant trainees fire 500 rounds from extremely loud M16 rifles over the course of 11 days. Dr. Campbell of Southern Illinois University is running a study there to test if d-methionine, an amino acid that is said to reduce oxidative damage, can help preserve their hearing. [New York Times](#)

## Long working hours linked to increased risky alcohol use

13 January - Employees who work more than 48 hours per week are more likely to engage in risky alcohol consumption than those who work standard weeks, finds a new study published in *The BMJ* today. Risky alcohol consumption is considered as more than 14 drinks per week for women and more than 21 drinks per week for men. ... In a cross sectional analysis of 333,693 people in 14 countries, they found that longer working hours increased the likelihood of higher alcohol use by 11%. A prospective analysis found a similar increase in risk of 12% for onset of risky alcohol use in 100,602 people from 9 countries. ... The authors point out that no differences were seen between men and women or by age, socioeconomic status or region. [Medical Xpress](#)

## Nanowire cloth heats up your body to help endure this cold winter

13 January - Researchers at Stanford University say a new nanowire treatment for fabric could lead to clothing capable of both generating heat and trapping the natural heat of our bodies more efficiently than regular clothes. The researchers created the material by dipping ordinary cotton fabric in a solution containing silver nanowire particles, which formed a conductive network within the cloth. By using solutions of varying concentrations, which allowed them to control the spacing of the particles in the network, they were able to find a spacing that allowed the fabric to trap 80 percent of a person's body heat, while still creating a breathable fabric that could be used in comfortable winter wear. [Tech Times](#)

## Public healthonomics

Winter 2015 - ... An assistant professor in the Department of Global Health and Population, [Jessica] Cohen is a behavioral economist who is pushing to bring the methods and insights of her field to international health projects, especially those in Africa. Rather than banish to the sidelines the messy aspects of human psychology such as procrastination, behavioral economics directly draws on them to explain economic and other aspects of human

behavior. Most of Cohen's research has involved malaria, ... it's widespread, the symptoms are nonspecific, and there are dozens of decisions to be made at the individual and government level about how much time and effort to invest in its prevention and treatment: "Malaria is one of those diseases where you can't crack the code without understanding human behavior," says Cohen. [Harvard School of Public Health News](#)

## Replacement for BPA in plastics also suspect: study

12 January - A chemical thought to be a safe replacement for one banned for use in baby bottles also causes developmental issues in fish embryos, according to a study released on Monday. In a study published on the Proceedings of the National Academy of Sciences, researchers from the University of Calgary found that bisphenol S (BPS), the chemical that replaced Bisphenol A (BPA) after that was connected to obesity, cancer, and childhood anxiety and hyperactivity, also causes changes in brain development in zebra fish that caused them to become hyperactive. [Reuters](#)

## Study: Risk of MERS-CoV camel-to-human transmission low

13 January - People exposed to camel herds in which MERS-CoV is endemic showed no evidence of infection, according to a study published yesterday in *Emerging Infectious Diseases*. Researchers ... tested serum from 191 people in the Saudi Arabian town of Al-Ahsa. Subjects had varying degrees of exposure to a local dromedary camel herd in which MERS-CoV (Middle East respiratory syndrome coronavirus) is endemic. Most study subjects (146 people) lived in Al-Ahsa but were not directly exposed to camels. Other subjects included 4 people who had daily contact with and drank raw milk from the infected herd, 8 people with intermittent herd contact, 30 veterinary staff who were not exposed to the herd but had other animal contact, and 3 slaughterhouse workers. None of the 191 people tested from December 2013 to February 2014 showed signs of infection or had MERS-CoV serum antibodies. Results suggest that zoonotic transmission of MERS from infected camels to humans is rare, the authors conclude. [CIDRAP News Scan](#) (second item)

## Tetravalent dengue vaccine safe, effective in Latin American children

13 January - A tetravalent dengue vaccine was effective against severe virologically confirmed dengue and significantly reduced the risk for hospitalization from the disease in five Latin American countries, according to recent study findings. Twin phase 3 clinical trials were initiated in Latin America and Asia to assess the efficacy of three doses of a recombinant, live, attenuated, tetravalent dengue vaccine (CYD-TDV, Sanofi Pasteur) given to patients with symptomatic, virologically confirmed dengue. Vaccinations were administered at 0, 6, and 12 months of the study. Preliminary results from the Asian trial with children aged 2 to 14 years have demonstrated an overall vaccine efficacy of 56.5% after three injections, which increased to 80.8% efficacy against severe dengue. ... In addition, after 25 months of surveillance, there have been no substantial safety concerns

associated with CYD-TDV. [Healio](#)

## The heat is on: Causes of hospitalization due to heat waves identified

9 January - In the largest and most comprehensive study of heat-related illness to date, Harvard School of Public Health (HSPH) researchers have identified a handful of potentially serious disorders—including fluid and electrolyte disorders, renal failure, urinary tract infections, sepsis, and heat stroke—that put older Americans at significantly increased risk of winding up in the hospital during periods of extreme heat. The study also showed that risks were larger when the heat wave periods were longer and more extreme and were largest on the heat wave day, but remained elevated for up to five subsequent days. “An innovative aspect of this work is that, rather than preselect a few individual diseases to examine, we considered all possible causes of hospital admission during heat waves in order to characterize the effects of heat on multiple organ systems,” said Francesca Dominici, professor of biostatistics at HSPH and senior author of the study. [Harvard Gazette](#)

## EBOLA VIRUS DISEASE

### Ebola response roadmap - Situation report

14 January - Guinea reported its lowest weekly total of new confirmed Ebola virus disease (EVD) cases since the week ending 17 August 2014. Case numbers remain low in Liberia, with no confirmed cases nationally for the final 2 days of the week ending 11 January, and the lowest weekly total of confirmed cases since the first week of June 2014. Sierra Leone has now reported a decline in case incidence for the second week running, and recorded its lowest weekly total of new confirmed cases since the week ending 31 August 2014. Each of the intense-transmission countries has sufficient capacity to isolate and treat patients, with more than 2 treatment beds per reported confirmed and probable case. However, the uneven geographical distribution of beds and cases, and the under-reporting of cases, means that not all EVD cases are isolated in several areas. Similarly, each country has sufficient capacity to bury all people known to have died from EVD. However, the under-reporting of deaths means that not all burials are done safely. [WHO](#)

### In Africa, a decline in new Ebola cases complicates vaccine development

9 January - As authorities and drug companies hurriedly prepare to begin testing Ebola vaccines in West Africa, they are starting to contemplate a new challenge: whether an ebbing of the outbreak could make it more difficult to determine if the experimental vaccines are effective. ... Vaccine effectiveness is determined by how many vaccinated people come down with a disease compared with those who are not vaccinated, or

vaccinated later. If few new cases of the disease are occurring, it would be harder to see any difference. Dr. Kieny said plans were being made to increase the size of the trial in Liberia if needed. [New York Times](#)

## Probe of Ebola burial practices pinpoints risks, triggers changes

13 January - An early September assessment of burial practices in some of Sierra Leone's Ebola hot spots revealed a host of problems that were probably helping fuel ongoing virus transmission in the country. ... [Burials teams] observed good infection control practices while handling the bodies, but they had limited capacity to decontaminate homes and didn't remove bedding and other contaminated materials. ... [Researchers] found that graves were sometimes hand dug and not to the recommended depth, and multiple bodies were often placed in a single grave. Given problems disposing of contaminated PPE, burial teams sometimes buried the materials on top of bodies, nearly filling the graves and posing problems of medical waste not being buried to the appropriate depth. ... The investigators concluded that bodies are now being buried in a safer and more dignified manner in Sierra Leone, but documenting the improvements is needed. They warned that unsafe, secret burials continue to be reported in the country, which spark new outbreaks. Continued efforts to improve the dignity of the burials, as spelled out in the country's operating procedures, might increase community acceptance of safe burials and help curb disease transmission, they wrote. [CIDRAP](#)

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## INFLUENZA

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### Amid widespread flu, CDC calls for more antiviral use

9 January - With signs of a rough influenza season continuing to accumulate, the Centers for Disease Control and Prevention (CDC) today said doctors too often are failing to use antiviral medications that could help high-risk flu patients. "They work, but they aren't being used nearly often enough," CDC Director Tom Frieden, MD, MPH, told reporters at a briefing. He referred to the neuraminidase inhibitors, including oseltamivir (Tamiflu), zanamivir (Relenza), and peramivir. ... Frieden said the CDC issued a Health Alert Network (HAN) advisory today encouraging the use of antivirals for high-risk flu patients. The advisory says flu should be high on the list of possible diagnoses for patients, given the high level of flu activity, and that all hospitalized and high-risk patients with suspected flu should be treated as early as possible with one of the three antivirals. [CIDRAP](#)

## Armed Forces Health Surveillance Center: DoD Seasonal Influenza Surveillance Summary

During Week 53:

- There was widespread influenza activity throughout NORTHCOM.
- Moderate to high influenza activity was seen for the majority of EUCOM.
- Influenza activity increased and was high in Japan and Hawaii.
- In CENTCOM and AFRICOM, ILI and P&I activity decreased but was still above baseline. Influenza activity was high in Iraq.
- In SOUTHCOM, the number of cases has decreased in the past two weeks and is at expected values. [AFHSC DoD Seasonal Influenza Surveillance Summary](#)

## CDC: Weekly Influenza Surveillance Report

During week 53 (December 28, 2014-January 3, 2015), influenza activity continued at elevated levels in the United States.

Viral Surveillance: Of 30,469 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 53, 7,515 (24.7%) were positive for influenza.

Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was above the epidemic threshold.

Influenza-associated Pediatric Deaths: Five influenza-associated pediatric deaths were reported.

Outpatient Illness Surveillance: The proportion of outpatient visits for influenza-like illness (ILI) was 5.6%, above the national baseline of 2.0%.

Geographic Spread of Influenza: The geographic spread of influenza in Guam and 46 states was reported as widespread. [FluView](#)

## DoD Global, Laboratory-Based, Influenza Surveillance Program

During 21 December 2014 - 3 January 2015 (Surveillance Weeks 52 & 53), a total of 310 specimens were collected and received from 48 locations. Results were finalized for 179 specimens from 41 locations. During Week 52, the laboratory identified one influenza A(H1N1)pdm09, 109 influenza A(H3N2), seven influenza A/not subtyped and four influenza B. During Week 53, 30 influenza A(H3N2) and two influenza B were identified. [USAF School of Aerospace Medicine](#)

## Early estimates of seasonal influenza vaccine effectiveness — United States, January 2015

16 January - This report presents an initial estimate of seasonal influenza vaccine effectiveness at preventing laboratory-confirmed influenza virus infection associated with medically attended ARI based on data from 2,321 children and adults enrolled in the U.S. Influenza Vaccine Effectiveness Network (Flu VE) during November 10, 2014–January 2, 2015. During this period, overall vaccine effectiveness (VE) (adjusted for study site, age, sex, race/ethnicity, self-rated health, and days from illness onset to enrollment) against laboratory-confirmed influenza associated with medically attended ARI was 23% (95% confidence interval [CI] = 8%–36%). Most influenza infections were due to A (H3N2) viruses. This interim VE estimate is relatively low compared with previous seasons when circulating viruses and vaccine viruses were well-matched and likely reflects the fact that more than two-thirds of circulating A (H3N2) viruses are antigenically and genetically different (drifted) from the A (H3N2) vaccine component of 2014–15 Northern Hemisphere seasonal influenza vaccines. [Morbidity and Mortality Weekly Report](#)

## Flu News Europe

Week 01/2015

- In week 01/2015, influenza activity remained low in most countries in the WHO European Region, but the number of countries with increased activity continued to rise compared to those in previous weeks.
- The level of influenza activity increased to medium in seven of the 35 reporting countries, while the proportion of sentinel specimens positive for influenza virus was 16% overall – similar to that in the previous week (17%) – but with a higher proportion positive (26%) in the western parts of the Region.
- The predominant influenza virus was type A, with A(H3N2) viruses predominating in primary care, among laboratory-confirmed hospitalized cases and other sources of information. Eleven of 13 countries reported A(H3N2) as the dominant type.

Season

- The influenza season in Europe has started: the overall proportion of influenza-positive sentinel specimens was above 10% for the third consecutive week, despite most countries' still reporting low influenza activity.
- Influenza A(H3N2) viruses have been the predominant viruses detected across all surveillance systems, and most of the A(H3N2) viruses characterized genetically belong to genetic subgroups containing viruses that have drifted antigenically compared to the A(H3N2) virus in use for the 2014–2015 northern hemisphere influenza vaccine.
- The circulating influenza A(H3N2), A(H1N1)pdm09 and B viruses remain susceptible to the antivirals oseltamivir and zanamivir currently licensed in Europe.
- No indication of increased mortality has been reported in the European project for monitoring excess mortality for public health action. [Flu News Europe](#)

## Flurry of human H5N1 cases in Egypt adds 6 more

12 January - Six additional human cases of H5N1 avian flu have been reported by Egypt's health ministry, three on Jan 9 and three more yesterday, according to stories from Ahrum Online, part of the country's largest news organization, which brings the total so far this year to 10. An entry yesterday on the Avian Flu Diary blog notes that Egypt has reported 35 cases in less than 2 months, after reporting only 8 over the previous 24 months. Why human cases are mounting so quickly of late remains unclear, but researchers have found mutations in infected poultry, which could be playing a role, says Mike Coston, author of the blog, citing a recent CIDRAP News story. [CIDRAP Avian Flu Scan](#) (first item)

## Naval Health Research Center: Febrile Respiratory Illness Surveillance Update

For the week ending 10 January 2015:

### Influenza

- Twelve cases of NHRC laboratory-confirmed influenza (11 A/H3 and 1 A/untyped) among US military basic trainees.
- Increased influenza A/H3 activity at 3 recruit sites. A large proportion of cases were vaccinated.
- A/H3 cases also occurring among DoD dependents and civilians near US-Mexico border. Very few cases had been vaccinated prior to illness.

FRI surveillance at all eight U.S. military basic training centers indicated elevated FRI rates at Fort Benning and Fort Jackson. [NHRC Febrile Respiratory Illness Surveillance Update](#)

## USAPHC: U.S. Army Influenza Activity Report

For the week ending 3 January 2015 (Week 53)

- Over the past two weeks, the number of specimens from Army MTFs which tested positive for influenza A decreased slightly. Most of the positive specimens were documented among the non-active duty population. Influenza reports for weeks 51 and 52 were not generated due to the holidays; however, captured trends are reported below.
- ILI Activity: Army incident ILI outpatient visits in week 53 were 4% higher than in week 52.
- Influenza cases: No hospitalized influenza cases were reported to USAPHC in week 53. To date, 7 cases have been reported during this influenza season: 2 AD SM and 5 non-AD beneficiaries.
- Viral specimens: During week 53, 579 of 2079 (28%) laboratory specimens tested positive for respiratory pathogens; 471 of 1883 (25%) specimens tested for influenza A were positive. SRMC reported the most influenza A-positive specimens (58%), followed

by NRMCM (25%), WRMC (13%), PRMC (2%), ERMC (1.5%), and CENTCOM (0.2%).

[USAPHC U.S. Army Influenza Activity Report](#)

## WHO Influenza Update

12 January - Globally influenza activity continued to increase in the northern hemisphere with influenza A(H3N2) viruses predominating so far this season. Antigenic characterization of most recent A(H3N2) viruses so far indicated differences from the A(H3N2) virus used in the influenza vaccines for the northern hemisphere 2014-2015. The tested influenza A(H3N2) viruses so far did show sensitivity to neuraminidase inhibitors.

- In North America, the influenza season was ongoing with influenza activity still increasing in most areas. Influenza A(H3N2) was the predominant virus.
- In Europe influenza activity was still low, but the season seemed to have started.
- In eastern Asia, influenza activity increased with influenza A(H3N2) virus predominated.
- In northern and western Africa influenza activity increased with influenza B virus predominant.
- In tropical countries of the Americas, influenza activity increased in some countries of the Caribbean, decreased in Central America and was low in the tropical countries of South America.
- In tropical Asia, influenza activity increased slightly but remained low with influenza B predominating.
- In the southern hemisphere, influenza activity remained at low levels, though ILI activity remained high in several Pacific Islands.
- National Influenza Centres (NICs) and other national influenza laboratories from 80 countries, areas or territories reported data. ... 22 129 (94.5%) were typed as influenza A and 1292 (5.5%) as influenza B. Of the sub-typed influenza A viruses, 163 (1.7%) were influenza A(H1N1)pdm09 and 9211 (98.3%) were influenza A(H3N2). Of the characterized B viruses, 423 (97.9%) belonged to the B-Yamagata lineage and 9 (2.1%) to the B-Victoria lineage. [WHO](#)

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### **VETERINARY/FOOD SAFETY**

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## Kansas approves additional funds for biodefense facility

8 January - The state of Kansas has agreed to authorize an additional \$231 million in bonds to help finance the National Bio and Agro-Defense Facility under construction near Manhattan, according to reporting from the Associated Press. ... The new laboratory, expected to be fully operational by 2022, will be used to research dangerous animal-borne diseases. [Global Biodefense](#)

## ***Listeria* found at apple plant matches outbreak strain; 1 new death reported**

12 January - *Listeria* found at the Bidart Bros. apple processing plant and on whole apples matches the strain that has sickened 32 people and caused 7 deaths, according to a Jan 9 Food and Drug Administration (FDA) press release. The Food and Drug Administration (FDA) found the 2 strains of *Listeria monocytogenes* responsible for the outbreak at Bidart's Shafter, Calif., plant and on Bidart apples shipped to a retailer. Bidart Bros. voluntarily recalled all Granny Smith and Gala apples on Jan 6. The company also recalled all prepackaged caramel apples linked to the outbreak in mid-Dec. Bidart Bros. last shipped Granny Smith apples to retailers on Dec 2. ... The CDC reported on Jan 10 that another person confirmed to have listeriosis related to the outbreak has died, bringing the fatality total to seven. No new cases have been reported since Dec 31. [CIDRAP News Scan](#) (third item)

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### **WELLNESS**

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## **A 12-hour window for a healthy weight**

15 January - ... [A] new study shows that mice prevented from eating at all hours avoided obesity and metabolic problems — even if their diet was sometimes unhealthy. ... [Mice] eating at all hours were generally obese and metabolically ill, reproducing the results of the earlier study. But those mice that ate within a nine- or 12-hour window remained sleek and healthy, even if they cheated occasionally on weekends. What's more, mice that were switched out of an eat-anytime schedule lost some of the weight they had gained. ... To date, Dr. Panda's studies have been conducted with only mice, but he says the results seem likely to apply to humans. [New York Times](#)

## **After stabilizing, overdose deaths rose in 2013**

12 January - Deaths from drug overdoses rose by 6 percent in 2013 from 2012, the federal government said Monday, reversing progress made in 2012, when the national rate, which had long been increasing, appeared to have stabilized. The 2013 increase was driven in part by a 39 percent jump in heroin deaths, the third consecutive year of increases for that drug. Deaths from opioid pain relievers — the biggest cause of drug overdose deaths — were up by about 1 percent in 2013. In 2012, such deaths declined by 5 percent, the first drop since the late 1990s. That decline helped level out drug overdose deaths overall, for an increase of less than 1 percent from 2011 to 2012. [New York Times](#)

## Blood test to help smokers 'find best way to quit'

11 January - A blood test could help people choose a stop-smoking strategy that would give them the best chance of quitting, research in a Lancet journal suggests. Studies show as many as 60% of people who try to give up start smoking again in the first week. But researchers argue measuring how quickly a person breaks down nicotine could boost the chances of success. ... Scientists found people who broke down nicotine at a normal rate had a better chance of quitting while using varenicline than those using nicotine replacement patches. Though volunteers who broke nicotine down more slowly had similar success rates whichever method they used, they reported more side-effects with the varenicline. [BBC News](#)

## Can compression clothing enhance your workout?

14 January - ... [A new study] found no statistically significant differences in their running efficiency or biomechanics when they wore [compression] sleeves and when they did not. ... A review of more than 30 studies of the effects of compression clothing in sports performance and recovery, for instance, determined that "compression clothing may assist athletic performance and recovery in given situations." ... So people's expectations of what the clothes will accomplish may color their results. Which does not mean that any resulting benefits are not real, Dr. Sperlich said. "Since beliefs are strong performance enhancers, I would recommend compression clothing to persons who believe in the performance-enhancing effect," he said. [New York Times](#)

## No smoke, but haze around e-joint

12 January - ... The device, called a JuJu Joint, heralds a union that seems all but inevitable: marijuana and the e-cigarette, together at last in an e-joint. ...[The] JuJu Joint is disposable, requires no charging of batteries or loading of cartridges, and comes filled with 150 hits. You take it out of the package and put it to your lips — that's it. There is no smoke and no smell. Since their introduction in April, 75,000 JuJu Joints have been sold in Washington State, where marijuana is recreationally and medically legal. The maker says that 500,000 will be sold this year and that there are plans to expand to Colorado, where recreational use is legal, Oregon, where it will be legal in July, and to Nevada, where it is decriminalized. [New York Times](#)

## Warning: That tan could be hazardous

10 January - ... [A] review of the scientific evidence published last year estimated that tanning beds account for as many as 400,000 cases of skin cancer in the United States each year, including 6,000 cases of melanoma, the deadliest form. And clinicians are concerned about the incidence rate of melanoma in women under 40, which has risen by a third since the early 1990s, according to data from the National Cancer Institute. ... The Obama administration's 2010 health care law imposed a little-noticed 10 percent tax on tanning salons. And more than 40 states now have some sort of restriction on the use of tanning

salons by minors. ... For the first time, new federal data has documented a decline in the use of indoor tanning among teenage girls, dropping to about a fifth of them in 2013, from a quarter in 2009. [New York Times](#)

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## USAFRICOM

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### Africa: Deadly snakes aid medical research

9 January - Researchers at the Liverpool School of Tropical Medicine have embarked on a project to develop an anti-venom treatment against the bite of every dangerous snake in sub-Saharan Africa. Snake bites kill at least 30,000 people per year in the region, and leave far more with severe disabilities. But to create the anti-venom, the team has to "milk" venom from every one of more than 400 venomous snakes in their laboratory. [In the video], the lead scientist on this Medical Research Council funded project, Dr Robert Harrison, explains how the extraction of venom from some of Africa's most deadly reptiles could save thousands of lives. [BBC News](#)

### Kenya: Dying to give birth in northern Kenya

15 January - ... Kenya is rated among the 10 most dangerous countries for pregnant women, according to a United Nations report, which highlights the trend of maternal deaths from 1990 to 2013. It indicated last year alone 6,300 women in Kenya died from pregnancy-related complications. Other reports estimate up to 8,000 a year die. According to Kenya's 2008-2009 Demographic and Health Survey, between 1,000 and 1,200 women die during delivery per 100,000 births in northeastern Kenya, compared to the national rate of 488 deaths per 100,000. Moreover, 68 percent of women deliver without the assistance of a skilled medical professional. In a bid to change the trend, Kenya's First Lady Margaret Kenyatta launched a campaign dubbed 'Beyond Zero' with the aim of reducing maternal deaths by deploying mobile health clinics to remote areas in the country. So far, the initiative has delivered seven fully kitted mobile clinics to seven counties with the highest maternal and newborn mortality rates. [Al Jazeera](#)

### Mozambique: Contaminated beer kills more than 50

11 January - Contaminated traditional beer has killed 56 people in Mozambique, health officials said Sunday. In addition, 49 people were admitted to hospitals in the Chitima and Songo districts in Tete Province, and 146 people have been examined for signs of the poisoning, a district health official, Alex Albertini, told Radio Mozambique. Those who drank the contaminated brew were attending a funeral in the region on Saturday, Mr. Albertini said. The authorities said they believed that the drink was poisoned with crocodile bile during the course of the funeral. The woman who brewed the beer is also among the dead.

[New York Times](#)

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## USCENTCOM

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### Oman: Oman reports its 2nd MERS case of the year

12 January - Oman has confirmed its second MERS-CoV case of the year—and its fourth overall—apparently in a contact of the most recent MERS patient, who has now died, according to media reports. ... The previous two MER-CoV patients in Oman also died, the most recently almost a year ago. [CIDRAP News Scan](#) (first item)

### Saudi Arabia confirms 2 new MERS cases, 1 recovery

14 January - Two new cases of MERS-CoV were recorded today by the country's Ministry of Health (MOH), the first since Jan 8, bringing the total for this year to 10 for the country and the total since June 2012 to 835. ... In today's update, the MOH also lists the recovery of one MERS-CoV patient, a 91-year-old man in Riyadh whose case was previously reported. He is not a healthcare worker but did have preexisting illness. His case brings to 469 the number of patients who have recovered from MERS-CoV in Saudi Arabia. The number of deaths stays steady at 358, and 8 cases are currently active, the MOH said. [CIDRAP News Scan](#) (first item)

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## USEUCOM

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### Inactivity 'kills more than obesity'

14 January - University of Cambridge researchers said about 676,000 deaths each year were down to inactivity, compared with 337,000 from carrying too much weight. They concluded that getting everyone to do at least 20 minutes of brisk walking a day would have substantial benefits. ... The study, published in the American Journal of Clinical Nutrition, attempted to tease out the relative dangers of inactivity and obesity. Researchers followed 334,161 Europeans for 12 years. They assessed exercise levels and waistlines and recorded every death. "The greatest risk [of an early death] was in those classed inactive, and that was consistent in normal weight, overweight and obese people," one of the researchers, Prof Ulf Ekelund told BBC News. [BBC News](#)

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## **U.S.: After Enterovirus 68 outbreak, a paralysis mystery**

12 January - A nationwide outbreak of a respiratory virus last fall sent droves of children to emergency departments. The infections have now subsided, as researchers knew they would, but they have left behind a frightening mystery. Since August, 103 children in 34 states have had an unexplained, polioliike paralysis of an arm or leg. Each week, roughly three new cases of so-called acute flaccid myelitis are still reported to the Centers for Disease Control and Prevention. Is the virus, called enterovirus 68, really the culprit? Experts aren't certain. ... [Many] affected children have never tested positive for infection with enterovirus 68. Last week, researchers said they could find no enteroviruses or other pathogens in the spinal fluid of 71 children with limb paralysis. ... If researchers cannot find a virus itself in partly paralyzed children, they can look for its footprint: antibodies to enterovirus 68 in the blood. [New York Times](#)

## **U.S.: Gun suicides far more common than homicides**

13 January - Fewer Americans are being shot and killed in homicides, but more are using guns to commit suicide, new research shows. Gunfire continues to kill a widely disproportionate number of young African-American men. The research, published in the Annual Review of Public Health, found that in 2012, 89 of every 100,000 black men ages 20 to 24 died from firearm homicide, compared to 4 of every 100,000 white men of the same age. That same year - 2012 - 64 percent of firearm deaths were suicides, up from 57 percent in 2006, according to the report. ... "For firearm violence, the group with the highest rates of death are young black men," he told Reuters Health. "But the group in which the largest number of deaths occurs is middle-aged to older white men. And in that group, 90 percent of the deaths are suicides." [Reuters](#)

## **U.S.: New Disney-linked measles cases bring total to 26**

13 January - California officials confirmed 7 more cases of measles linked to Disney theme parks in California, bringing the total to 26 cases reported in four states, the Associated Press (AP) reported today. The new cases include 6 in California and 1 in Washington. Three of the California cases were reported yesterday in San Bernardino County and Long Beach. Patients had all visited Disney theme parks between Dec 15 and Dec 20, including Disneyland and Disney California Adventure, or had contact with someone who visited Disney parks in California, the AP said. [CIDRAP News Scan](#) (first item)

## **U.S.: US report shows declines in healthcare-linked infections**

14 January - Data from more than 14,000 acute-care hospitals show that the nation has made progress in reducing several types of healthcare-associated infections (HAIs), but not

all, the Centers for Disease Control and Prevention (CDC) reported today. The biggest improvement was a 46% drop in central line-associated bloodstream infections (CLABSIs) from 2008 to 2013, the CDC said in its annual report on HAIs. Smaller decreases were reported for several other types of infections, but catheter-associated urinary tract infections (CAUTIs) increased. [CIDRAP](#)

## U.S.: Why Kaiser mental health workers are on strike in California

13 January - Even after state regulators fined Kaiser Permanente \$4 million for systemically understaffing its psychiatry department, California's largest health insurer continues to put the lives of thousands of its members at risk by forcing mental health patients to wait weeks, even months, for treatment. Kaiser simply does not staff its psychiatry department with enough psychologists, therapists, social workers and psychiatric nurses to provide timely, quality care to the ever-growing number of patients seeking help. After having exhausted all other measures to persuade Kaiser officials to bring its psychiatric services into compliance with state laws governing timely access and parity for mental health care, Kaiser's 2,600 California mental health clinicians, along with more than 700 Kaiser Northern California Optical workers and Southern California Healthcare Pros, are on strike this week throughout the state. [Huffington Post](#)

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### USPACOM

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## Cambodia: 212 H.I.V. cases linked to contamination

10 January - Cambodian health authorities have found 212 villagers infected with H.I.V. in a district where an unlicensed medic has been accused of spreading the virus with contaminated equipment, according to findings released Saturday by the government and international health agencies. Prosecutors charged the medic with murder last month. The 212 people with H.I.V., the virus that causes AIDS, were discovered after the authorities tested a total of 1,940 people in the district in Battambang Province in northwestern Cambodia. [New York Times](#)

## Cambodia: Dengue fever kills 21 Cambodian kids last year, down 64 pct

14 January - At least 21 Cambodian children had been killed by dengue fever last year, a decrease of 64 percent from 59 deaths in 2013, local newspaper reported Wednesday. Some 3,724 dengue fever cases had been reported last year, down 79 percent from 17,533 cases in a year earlier, Khmer Times reported, citing figures from the National Center for

Parasitology, Entomology and Malaria Control. The center's director Huy Rekol said the number of epidemic and fatal cases of dengue fever was at its lowest level over the past 10 years. [Xinhua](#)

## India: Bootleg liquor kills 28 in India

13 January- A batch of bootleg liquor has killed at least 28 people in India, where tainted illegal alcohol often kills poor villagers unable to afford licensed spirits. Fifteen people died on Tuesday and about 90 remained in hospital, said Debashish Panda, principal home secretary of northern Indian state of Uttar Pradesh, taking the total death toll since Monday to 28. ... The death toll may rise further as most of the victims were in serious condition, said Kausar Usman, a doctor at King George's Medical University in Lucknow. Police have arrested two men who they suspect made the brew with methanol, a chemical used in industrial items such as fuel and antifreeze. [VOA](#)

## India: Dead bodies found floating in Indian river

14 January - Scores of decaying dead bodies have surfaced in India's sacred Ganges river, as dogs, crows and vultures hacked away at the corpses. NDTV news channel reported on Wednesday that more than 100 bodies had surfaced in the river between Kanpur and Unnao districts in the northern Uttar Pradesh state. ... Officials do not suspect a crime, and instead believe the dead were given water burials. It is Indian custom not to cremate unwed girls, and many poor people cannot afford cremation. ... [Previous] attempts to clean up the river, including introducing flesh-eating turtles to devour the charred remains of the dead cremated on its banks, have failed due to a lack of planning or coordination. [Al Jazeera](#)

## India: On the 'Cancer Train' of India's pesticides

9 January - ... Poor patients from across Punjab flock to catch the 9:30pm train to head to the desert city of Bikaner for specialist treatment, arriving early morning after a seven-hour journey. On this occasion, the train's sole reserved compartment, with a capacity of 72, is occupied by 30 cancer patients. ... A Greenpeace report conducted by scientists from Exeter University in the United Kingdom found 20 percent of wells sampled have nitrate levels above World Health Organisation safety limits of 50mg per litre for drinking water. Nitrate pollution can have a serious impact on health, especially among children. In 2010, Baba Farid Centre teamed up with Micro Trace Minerals Laboratory in Germany on a study that found "disturbingly high" levels of heavy metals such as barium, cadmium, manganese, lead and uranium in local children aged between 13 and 18. ... "So people have no option but to drink highly polluted water and bathe in tap water that is sourced from canals where industrial effluents are discharged with near impunity. [Al Jazeera](#)

## Philippines: Measles in the Philippines

13 January - According to the World Health Organization, 57,564 suspected cases of measles, including 21,403 confirmed cases and 110 measles deaths, were reported in the Philippines from January 1 through December 20, 2014. Additionally, during 2014, 25 US

travelers who returned from the Philippines have become sick with measles. Most of these cases were among unvaccinated people. [CDC](#)

## Vietnam: Measles in Vietnam

13 January - According to the World Health Organization, about 17,267 suspected measles cases, including 5,568 confirmed cases and 2 measles deaths, were reported in Vietnam as of December 20, 2014. [CDC](#)

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### USSOUTHCOM

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## Chikungunya cases rise by 24,000 in 2 weeks

12 January - The Pan American Health Organization (PAHO) reported 24,264 new cases of chikungunya in the Caribbean and Latin America over 2 weeks, according to a Jan 9 update. The new cases bring the outbreak total to 1,121,267, which includes 1,094,661 suspected and 24,071 confirmed locally acquired cases, along with 2,535 imported cases. With the addition of 3 deaths in Puerto Rico, the outbreak fatality total has risen to 172. As in recent weeks, cases continue to rise sharply in the Dominican Republic and Colombia. [CIDRAP News Scan](#) (second item)

## Haiti: Voodoo priests, doctors on frontline of Haiti's mental healthcare

9 January - ... Symptoms of mental illness have been built into a screening tool used by Zanmi Lasante to train health workers, including nurses, doctors, social workers and psychologists, to identify depression among rural communities in central Haiti. The earthquake highlighted the urgent need to address mental health but this has been a demanding task in a country with only around 10 psychiatrists for a population of 10 million. "It was only after the earthquake that the health minister said mental health should be a priority and that the issue was talked about," said Fils-Aime. In Haiti, a key way to improve mental healthcare is to work with religious leaders from Catholic, Protestant and voodoo faiths, says the Centre for Addiction and Mental Health (CAMH) in Toronto. Haiti's voodoo religion heavily influences how mental illness is perceived and treated. The [Office of Transformative Global Health] is working with 40 religious leaders in Haiti to deliver cognitive behavioural therapy, a type of psychotherapy to treat mental illness. [Reuters](#)

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