



Kentucky Hospital Research & Education Foundation Emergency Preparedness Update for June 19, 2019

NOAA Says Upgraded Weather Model to Yield Better Forecasts

(Govtech) The National Oceanic and Atmospheric Administration (NOAA) Wednesday deployed its upgraded weather forecast model — the Global Forecast System (GFS) — which has undergone a software upgrade.

Extensive testing during both summer and winter months using models from previous storms was done, and the updated model is expected to produce accurate one-to-two-day forecasts and increases the accuracy of forecasts made in the three-to-seven-day range.

The new engine will improve forecasts of the jet stream and associated weather, tropical cyclone intensity as well as precipitation forecasts across the U.S., Gross said. The GFS also received other upgrades to the physical processes that produce rain and snow in the model. The upgrade is the first such core upgrade in 40 years and is the first step in delivering the Next Generation Global Prediction System.

Read more: <https://www.govtech.com/em/preparedness/NOAA-Says-Upgraded-Weather-Model-to-Yield-Better-Forecasts.html>

Kentucky sets June 28 launch for Real ID driver's licenses in Franklin Co

Kentucky plans to begin offering new drivers' licenses in Franklin County on June 28, then expanding its "pilot" program to Woodford and Hart counties before moving to the rest of the state. The announcement by the Kentucky Transportation Cabinet marks the latest schedule for the rollout of the Real ID-compliant licenses, which Congress mandated in 2005.

Full story: https://www.wdrb.com/in-depth/kentucky-sets-june-launch-for-real-id-driver-s-licenses/article_daa4f290-91e9-11e9-91be-5b739a56d7e2.html

Senate leaders introduce Lower Health Care Costs Act

(AHA Today) Sens. Lamar Alexander, R-Tenn., and Patty Murray, D-Wash., today introduced the Lower Health Care Costs Act ([S.1895](#)), legislation to prevent surprise medical bills, reduce prescription drug prices, improve transparency in health care, invest in public health and improve health information exchange. **The bill holds patients harmless from surprise medical bills** and, in an update from the draft legislation, uses a benchmark rate to resolve payment disputes between plans and out-of-network providers. Under that provision, health plans would pay providers the median in-network contracted amount that insurers have negotiated with other providers in that geographic area, according to a [section-by-section summary](#) of the bill.

Extract - Sec. 105. Ending surprise air ambulance bills.

- Patients are held harmless from surprise air ambulance bills. Patients are only required to pay the in-network cost sharing amount for air ambulance transport, and air ambulance providers are barred from sending patients balance bills for more than the in-network cost-sharing amount.
- For surprise air ambulance bills, health plans would pay air ambulance providers the local median contracted commercial amount that the insurer negotiated with other providers and agreed upon in that geographic area.
- Health plans without enough internal data to calculate median contracted rates in a particular geographic area have the option of using unbiased external data sources, such as a state's all-payer claims database, to establish a benchmark.

"The AHA applauds Chairman Alexander, Ranking Member Murray and the Senate HELP Committee for their continued commitment to protecting patients," said AHA Executive Vice President Tom Nickels. "The Lower Health Care Costs Act includes critical provisions to hold patients harmless from surprise medical bills, including for air ambulance transport.

"At the same time, the reliance on a benchmark payment rate for providers is unworkable, and we strongly urge the committee to reconsider. Arbitrary, government-dictated reimbursement would result in significant unintended consequences for patients and create a disincentive for insurers to maintain adequate provider networks, particularly in rural America.

"Similarly, certain restrictions on contracting could lead to even more narrow networks with fewer provider choices for patients, while adversely affecting access to care at rural and community hospitals serving vulnerable communities.

Link to Section Summary:

<https://www.help.senate.gov/imo/media/doc/LHCC%20Act%20section%20by%20section%206.19.pdf>

Report Shows Kentucky Kids Are Making Progress, But Still Lag Behind

(WFPL) An [annual report measuring the health and well-being of Kentucky children](#) shows progress in nine categories, including the number of children without health insurance, children living in poverty and children whose parents lack secure employment. But the state still lags behind the nation in these areas, including in the rate of teen births, and children living in single-parent families.

According to the annual Kids Count Data Book, the rate of children living in poverty in Kentucky is higher than the national average: about 22 percent of Kentucky kids lived below the federal poverty line in 2017. That's compared to a nationwide average of about 18 percent. The federal poverty level in 2017 was \$20,420.

Learn more: <https://wfpl.org/report-shows-kentucky-kids-are-making-progress-but-still-lag-behind/>

[U.S. teen suicides rising, especially among boys](#)

For nearly a decade, suicide rates have been climbing among U.S. teens, with an especially pronounced increase in boys recently, a new study suggests.

Ready or Not, Funded Or Not, The School Safety Law Is Coming to Ky. Schools

(WFPL) The School Safety and Resiliency Act, known as Senate Bill 1 during the past legislative session, will require every school to have intercoms, cameras and automatic locking doors at their main entrances, and locks on all their classroom doors by July 2022.

The law also requires schools to appoint a school safety coordinator and train threat assessment teams. Lawmakers also set potential goals for hiring more school counselors and school resource officers. The legislation passed with bipartisan support, but with no money attached yet.

Learn more: <https://wfpl.org/ready-or-not-funded-or-not-the-school-safety-law-is-coming-to-ky-schools/>

Teen's vape exploded, shattering his jaw

(CNN) The 17-year-old traveled 250 miles with a bloody mouth, broken teeth and a hole in his jaw, trekking from a small town in Nevada to a pediatric hospital in Utah with his mother. There, doctors rushed him into surgery, working to reconstruct and repair shattered bone.

What he told doctors shocked them: The boy was vaping when, without warning, his e-cigarette exploded in his face. The freak accident, described in a case study published Wednesday, is just one of [thousands](#) in recent years.

"People need to know before they buy these devices that there's a possibility they're going to blow up in your pocket, in your face," said Dr. Katie Russell, the trauma medical director at Primary Children's Hospital who first treated the boy.

Full story: <https://www.cnn.com/2019/06/19/health/e-cigarette-vape-explode-teen-study/index.html>

San Francisco set to become first US city to ban e-cigarettes

San Francisco has edged towards becoming the first US city [to ban sales of e-cigarettes](#), as well as the manufacturing and distribution of them on city property. A preliminary vote saw city supervisors unanimously approve a ban on e-cigarettes the Food and Drug Administration has yet to review. It hasn't assessed any yet and companies have until 2021 to apply for reviews of their products [under](#)

[the agency's draft guidelines.](#) A final vote on the measure will take place next week, and it seems likely to pass into law.

Full Story: <https://www.engadget.com/2019/06/19/san-francisco-e-cigarette-ban-vote-vaping-juul/>

**Want To Prevent Gun Violence?
Some States Turn To 'Red Flag' Laws**

(WFPL) Earlier this year, police dispatchers in Evansville, Indiana, received a chilling call. A man said he was holding his wife at knifepoint, and he warned police that he was heavily armed.

"I've spent the last two days arming my residence against forced police entry, and I'm armed to the teeth," he told dispatchers over the phone.

The threat to the man's wife wasn't real. He was arrested for the improper 911 call while taking out the trash.

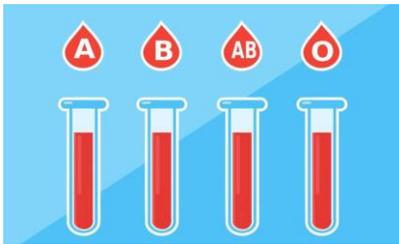
But he wasn't lying when he said he had a lot of guns. Police found 10 throughout his house, which they confiscated without a warrant under Indiana's Red Flag Law.

More and more states are adopting so-called Red Flag Laws in an attempt to curb gun violence. These laws allow police to confiscate guns in an emergency.

Learn more: <https://wfpl.org/want-to-prevent-gun-violence-some-states-turn-to-red-flag-laws/>

Enzymes that can transform blood type A to O found in human gut biome

(Phys.org) A team of researchers at the University of British Columbia has found two types of enzymes that together, can transform type A blood to type O blood in the human gut biome. In their paper published in the journal *Nature Microbiology*, the group describes their metagenomic study of bacteria in human feces and what they found.



Prior research [by the team at UBC](#) showed that certain enzymes could be used to convert A, B, or AB to O by removing the antigens. In this new effort, the researchers found that two enzymes working together convert type A blood to O, and that they exist in the human

gut biome. Story link: <https://news360.com/article/499624009>

**Robocalls are overwhelming hospitals and patients,
threatening a new kind of health crisis**

(Washington Post) In the heart of Boston, Tufts Medical Center treats scores of health conditions, administering measles vaccines for children and pioneering next-generation tools that can eradicate the rarest of cancers.

But doctors, administrators and other hospital staff struggled to contain a much different kind of epidemic one April morning last year: a wave of thousands of robocalls that spread like a virus from one phone line to the next, disrupting communications for hours.

For most Americans, such robocalls represent an unavoidable digital-age nuisance, resulting in seemingly constant interruptions targeting their phones. For hospitals, though, the spam calls amount to a literal life-or-death challenge, one that increasingly is threatening doctors and patients in a setting where every second can count.

Read more: <https://www.washingtonpost.com/technology/2019/06/17/robocalls-are-overwhelming-hospitals-patients-threatening-new-kind-health-crisis/>

Kentucky law targeting unwanted, spoofed calls takes effect next week

Read more: https://www.wdrb.com/news/kentucky-law-targeting-unwanted-spoofed-calls-takes-effect-next-week/article_f07f266c-9234-11e9-b203-0f54923890cf.html

Ky. lawmakers skeptical of claims that squirrels delayed high-speed Internet project

(WDRB) A project that would bring high-speed internet across Kentucky will be delayed because company representatives say an "abundance" of squirrels have chewed through wiring. Kentucky lawmakers questioned reports of ravenous squirrels Tuesday, blocking officials in charge of the KentuckyWired project from borrowing an additional \$110 million.

Learn more: https://www.wdrb.com/news/ky-lawmakers-skeptical-of-claims-that-squirrels-delayed-high-speed/article_29fa4068-92ba-11e9-87c7-c7665fa3b66b.html

In Fight Against Superbugs, BARDA Looks to Shore Up National Stockpile Countermeasures

(Global Defense) A crisis has arisen from the simultaneous decrease in the number of pharmaceutical companies developing antibiotics and the dramatic increase in the prevalence of infections and deaths caused by antibiotic resistant pathogens. Due to the genetic promiscuity of bacteria, the same genetic markers that give rise to antibiotic resistance in hospital acquired infections can be transferred to biothreat pathogens (e.g. *Y. pestis*, *B. anthracis*, *F. tularensis*, *B. mallei* and/or *B. pseudomallei*).

Therefore, the threat of naturally-occurring or intentionally-engineered antibiotic-resistant biothreat pathogens potentially impacts the effectiveness of the current stockpile of antibiotic medical countermeasures (MCMs) to treat these threats.

Using Project BioShield funds, the Biomedical Advanced Research and Development Authority (BARDA) seeks to develop candidate antibiotics which have received marketing authorization from the U.S. Food and Drug Administration (FDA) for a pulmonary indication or are in Phase 3 clinical development for a pulmonary indication, and eligible for Emergency Use Authorization (EUA) pre-approval by FDA for a biothreat indication. If the antibiotic does not have FDA marketing authorization for a pulmonary indication, the Offeror must seek development and FDA marketing authorization for a pulmonary indication that could support EUA pre-approval or marketing authorization for a biothreat indication.

Learn more: <https://globalbiodefense.com/2019/06/18/in-fight-against-superbugs-barda-looks-to-shore-up-national-stockpile-countermeasures/>

When Surgeons Are Abrasive To Co-Workers, Patients' Health May Suffer

(NPR) As a group, surgeons are not well known for their bedside manner. "The stereotype of the abrasive, technically gifted ... surgeon is ubiquitous among members of the public and the medical profession," write the authors of a [2018 article](#) in the *AMA Journal of Ethics*. While poor manners aren't commonly accepted in most professional circles, representations of surgeons in popular culture often link technical prowess with rude behavior, and some [surgeons have even argued](#) that insensitivity can be helpful in such an emotionally strenuous profession.

A study published [Wednesday in JAMA Surgery](#) challenges these ideas. The study, which looked at interactions between surgeons and their teams, found that patients of surgeons who behaved unprofessionally around their colleagues tended to have more complications after surgery. Surgeons who model unprofessional behavior can undermine the performance of their teams, the authors write, potentially threatening patients' safety.

The researchers found that when surgeons had one or more reports of unprofessional behavior over the previous 36 months, their patients were 12% to 14% more likely to experience complications in a 30-day period following surgery. These complications included infections, pneumonia, stroke and kidney failure. The study did not assess which of the four behavior subcategories were associated with the most increased likelihood for complications.

The findings show that a surgeon's technical prowess is not the only determinant of good outcomes, says [Jonah Stulberg](#), a general surgeon at Northwestern Memorial Hospital who has published research on [surgeon performance evaluation](#) and was not involved in the study.

Full story: <https://www.npr.org/734044306>

Nanofibers in Face Masks and Respirators to Provide Better Protection

(Global Defense) Respirators are designed to help reduce the wearer's respiratory exposure to airborne contaminants such as particles that are small enough to be inhaled – particles less than 100 microns (µm) in size. As fiber diameter decreases, the most penetrating particle size decreases and the capture efficiency of the most penetrating particle size increases. In this point nanofibers could be the key elements for filter materials in face masks or respirators. They have very high surface area per unit mass that enhances capture efficiency and other surface area-dependent phenomena that may be engineered into the fiber surfaces (such as catalysis or ion exchange).

Nanofibers could enhance filter performance for capture of naturally occurring nanoparticles such as viruses, as well as micron-sized particles such as bacteria or man-made particles such as soot from diesel exhaust.

Read more and link to full report: <https://globalbiodefense.com/2019/06/11/nanofibers-in-face-masks-and-respirators-to-provide-better-protection/>

Experimental botulism antitoxin safe, effective in adults, study finds

(CIDRAP News Scan) The new botulism antitoxin heptavalent (BAT) therapy was safe and effective in treating exposure to botulinum neurotoxins in adults and pediatric patients, according to a new post-licensure study published in *Clinical Infectious Diseases*. The study followed 162 patients, median age 51, treated with BAT for suspected botulism poisoning in the United States from 2014 through 2017.

Of the 162 patients, 113 received a final diagnosis of botulism. Those treated within 2 days of symptom onset with BAT spent far less time in the hospital (5 vs 15.5 days) than those treated more than 2 days after symptom onset. They also spent less time in intensive care (4 vs 12 days) and on mechanical ventilation (6 vs 14.5 days). Only seven patients reported serious side effects from the treatment.

WHO: 1 in 3 people globally cannot access safe drinking water

One third of the world's population does not have access to clean drinking water, while more than half cannot access safe sanitation services, according to a report today by UNICEF and the World Health Organization (WHO). The report assessed water access and sanitation globally from 2000 to 2017, and it found that 1.8 billion people have gained access to basic drinking water services since 2000. But an estimated 144 million people still regularly drink untreated water. Jun 18 WHO [news release](#)
Jun 18 [full report](#)

Johns Hopkins: Health Security Headlines
Extracts from [June 18, 2019](#)

[Data Highlight State-by-State Benefits of Federal Natural Disaster Mitigation Grants](#)

(PEW) Every federal grant dollar spent on natural disaster mitigation projects, such as elevating buildings or retrofitting infrastructure to reduce the impact of future events, saves \$6 on average in post disaster recovery costs, according to a 2018 [study by the National Institute of Building Sciences \(NIBS\)](#). [Go to article](#)

[We Must Prepare for the Next Pandemic](#) (*New York Times: Subscription required*) When the next pandemic strikes, we'll be fighting it on two fronts. The first is the one you immediately think about: understanding the disease, researching a cure and inoculating the population. The second is new, and one you might not have thought much about: fighting the deluge of rumors, misinformation and flat-out lies that will appear on the internet. [Go to article](#)

[[While we exercise for Ebola...](#)] **[Health System Capacity in Sydney, Australia in the Event of a Biological Attack with Smallpox](#)** (*PLOS: One*) Planning for a re-emergent epidemic of smallpox requires surge capacity of space, resources and personnel within health systems. There are many uncertainties in such a scenario, including likelihood and size of an attack, speed of response and health system capacity. We used a model for smallpox transmission to determine requirements for

hospital beds, contact tracing and health workers (HCWs) in Sydney, Australia, during a modelled epidemic of smallpox. [Go to article](#)

The KHREF Emergency Preparedness Update is assembled several times a week. When events make it necessary, the Update may be sent out several times a day to keep our hospital and the healthcare community advised on preparedness news and information. Most of this information is compiled from open sources, and where possible reference links will be provided. There is an archive of [Emergency Preparedness Updates available here](#). If you would like to add or delete, or have something you would like to contribute to a future edition of the Emergency Preparedness Update, please contact rbartlett@kyha.com (include your current email address). The preparedness program for the Kentucky Hospital Association (KHA) and KHREF are supported by US DHHS ASPR HPP funds through a contract with Kentucky Public Health.