



# PLANETARY HEALTH WEEKLY

BRINGING YOU CURRENT NEWS ON GLOBAL HEALTH & ECOLOGICAL WELLNESS

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## FLORENCE WAS ANOTHER 1,000-YEAR RAIN EVENT. IS THIS THE NEW NORMAL AS THE PLANET WARMS?

Over a massive region of southeast North Carolina and northeast South Carolina, Hurricane Florence produced an extraordinary rainstorm that statistically has a 1-in-100 chance of occurring each year. Over substantial areas, the deluge had a 0.1 percent chance of happening, what is known as a 1,000-year event. Since August 2017, three hurricanes have set rainfall records in four states. Florence's rainfall in North Carolina was the most for any tropical weather system north of Florida along the East Coast on record. Basic physics dictates that as the oceans warm, evaporation speeds up, which increases the amount of water vapor in the atmosphere available to storms. Oceans are warming not only at the surface but at great depths, increasing the reservoir heat from which storms can draw.

Characterizing these exceptional tropical rainfall events as part of the "new normal" may even undersell what is happening.

Read more at [The Washington Post](#).



Credit: NOAA, BBC

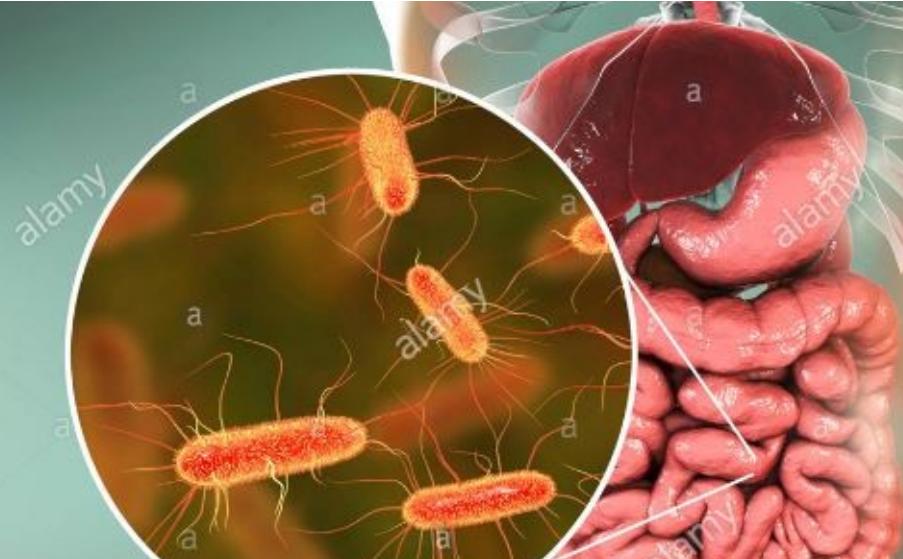
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## A 50-YEAR PERSPECTIVE ON ORAL REHYDRATION THERAPY FOR DIARRHEAL DISEASES

On August 17, 1968, 50 years ago, a report from Bangladesh described the successful use of an oral rehydration solution (ORS) to treat patients hospitalized in shock from cholera gravis. Untreated, severe cholera resulted in high mortality (approaching 40%) from dehydration and shock, but research in the 1940s demonstrated that mortality could be reduced with intravenous (IV) fluids used for both rehydration and maintenance therapy. In settings in which IVs were unavailable, ORS was a "miracle" solution for treatment and survival. The trial was based on years of basic research on the physiology of glucose-mediated sodium transport in the gut to enhance the absorption of fluids and electrolytes and demonstrated that oral rehydration therapy (ORT) promoted positive water and electrolyte balance even during severe diarrhea.

Read more at [JAMA Network](#).



Credit: alamy stock photo



Credit: Marcel Kesting

## MYSTERIOUS GREAT WHITE SHARK LAIR DISCOVERED IN PACIFIC OCEAN

Researchers visited the middle-of-nowhere spot between Baja California and Hawaii this past spring on a quest to learn more about what draws the big sharks to what has become known as the White Shark Café. The sharks' annual pilgrimage to the mid-Pacific region from the coasts of California and Mexico (a 160-mile-radius subtropical region about 1,200 nautical miles east of Hawaii) has baffled scientists for years, not just because it is so far away — it takes a month for the sharks to get there — but because it seemed, on the surface, to be lacking the kind of prey or habitat that the toothy carnivores prefer. But the expedition found a vast community of tiny light-sensitive creatures so tantalizing that the sharks cross the sea en masse to reach them.

[Read more at San Francisco Chronicle.](#)

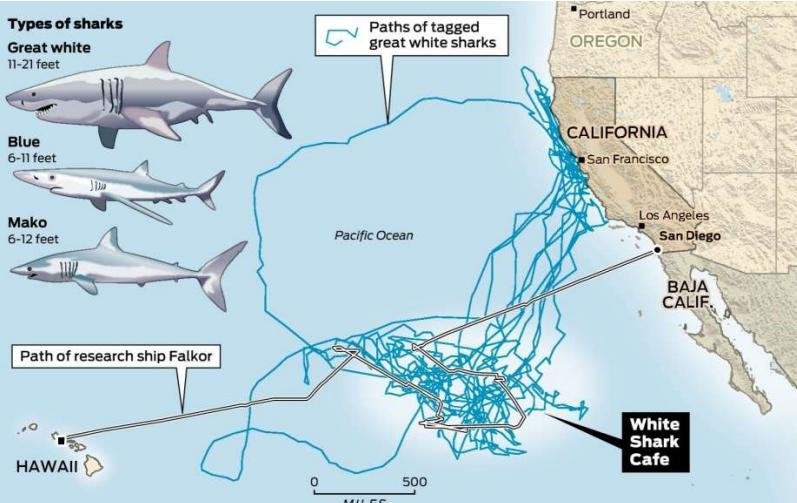


Credit: NASA/GSFC

## 27 MAJOR CITIES RETREAT FROM PEAK GREENHOUSE GAS EMISSIONS

Twenty-seven major cities around the world may already have seen their greenhouse gas emissions peak, according to a new study. The C40 Cities Climate Leadership found 27 cities that have reduced emissions at least 10 percent from their peak levels. These 27 cities peaked at least six years ago, and the peak was at least 10 percent higher than the most recent year of emissions data. The group found that 20 other cities may have also peaked but didn't meet both thresholds of peaking by 2012 and declining more than 10 percent from the peak. An additional 66 cities are also on track to peak by 2020, according to the group.

[Read more at Scientific American.](#)



Credit: whitesharkcafe.com

John Blanchard / The Chronicle

## RUSSIAN ICE CAP ONCE THOUGHT TO BE STABLE SUDDENLY SURGES CREATING UNPRECEDENTED ICE LOSS

Researchers found that Russia's Vavilov Ice Cap dramatically surged over the past couple of years resulting in massive amounts of ice loss and raising concerns that other ice caps may experience the same phenomenon to the detriment of us all — the rapid thawing of the planet's air conditioner. The world's ice caps together hold 1 foot of sea level rise. The great ice platforms that are the submerged portion of the massive ice streams in the oceans off of Greenland and in particular, Antarctica, provides the resistance to the land ice from flowing into the sea. This buttressing phenomenon has barely changed for 100,000 years for some of the world's great ice shelves, but in a change that will rapidly raise sea level, warm ocean water is melting and thinning the shelves from below causing them to slowly crack and collapse. A new study concludes that the bedrock of the Vavilov Ice Cap now has water at its base and there is no turning back. The majority of the Arctic is rapidly unraveling from our relentless burning of fossil fuels.

[Read more at Daily Kos.](#)



Credit: Jodi Bieber

## TEEN PREGNANCY EPIDEMIC FEEDS MOZAMBIQUE'S POPULATION BOOM

Mozambique's child marriage and teen pregnancy rates are among the highest in the world, a driving factor in the population explosion in this poverty-plagued southern African nation. After emerging from a brutal war in 1992, the former Portuguese colony saw its population swell 40 percent in the two decades to 2017, reaching 29 million today, and doubling in 25 years. Around 48.2% of Mozambique's women marry before they turn 18, according to UN children's agency UNICEF. Of girls aged between 15 and 19, 46.4% are either pregnant or have already become mothers. These early marriages and pregnancies "are impoverishing the community," says Murrupelane village chief Wazir Abacar. Young parents "cannot feed their children, and the mums leave school," he said. As a result, 58% of Mozambican women are illiterate.

[Read more at New Vision.](#)

## THIS INSPIRING LEADER WENT FROM \$150,000 IN DEBT TO IMPACTING 500,000 LIVES AROUND THE WORLD

YUVA Unstoppable is on a mission to make sure that no child in India stops attending school because they don't have access to something much of the world takes for granted. The organization works to create and renovate bathrooms in schools so that children can get an education without jeopardizing their health or their dignity. Started in 2004 by Amitabh Shah, YUVA Unstoppable started as a small group of enthusiastic individuals that believed in the power of youth. Today, YUVA has transformed 700 schools in over 40 cities in India to help over 500,000 children.

[Read more at cause.](#)



Credit: Sam Panthaky, Getty Images



Credit: Hartphotography | Dreamstime.com

## WEIGHT DISCRIMINATION IS AS COMMON AS RACISM, AND NEEDS TO BE FOUGHT WITH THE SAME TOOLS

Weight discrimination is about as widespread as racism, researchers say, but not enough is being done to educate and legislate against it. A study that looked at perceived weight discrimination in the United States reported that experiences of weight discrimination increased from seven per cent in the mid 1990s to 12% between 2004 and 2006. The study found that the prevalence of weight discrimination was close to reported rates of racism and ageism. 54% of adults with obesity report being stigmatized by co-workers, while 69 per cent report experiencing weight bias from doctors. The social implications of weight bias are hurtful and harmful, but in the health-care system, it can be especially damaging.

[Read more at The Star.](#)



Credit: Ekonatur

## SPOTLIGHT ON POLICY: OVERFISHED: A LAW THAT SAVED AMERICA'S FISHERIES FROM RUIN GETS GUTTED

By the 1970s, red snappers in the Gulf of Mexico had been all but exterminated by decades of overfishing. Then, in 1976, the US Congress passed a fisheries management bill. The following year, red snappers were declared overfished and a catch quota was established for the gulf. Since then, the red snapper has bounced back from 3% of its historic respawn rate to nearly 20%. The average size of a red snapper has doubled in the last decade. Then in July, a new bill was passed, though it neglects long-term sustainability for short-term economic benefit.

Read more at [The National Magazine of the Sierra Club](#).



Credit: ATESE | ISTOCK



Credit: Kristen Tregenza

## SPOTLIGHT ON INDIGENOUS HEALTH: MINCED WORDS: THE IMPORTANCE OF WIDESPREAD HEARING LOSS AS AN ISSUE IN THE MENTAL HEALTH OF INDIGENOUS AUSTRALIANS

Many Indigenous people in Australia experience mild to moderate hearing loss and auditory processing difficulties from a very young age. They do so because of middle ear disease which is endemic in many Indigenous communities. The resulting communication problems often lead to the development of psycho-social difficulties which continue through adult life. Indigenous people with early onset hearing loss and auditory processing problems face verbal communication challenges and use a variety of strategies to cope. Hearing loss and auditory processing problems from endemic childhood ear disease contribute to communication problems that have communications as well as social and emotional consequences.

Read more at [Australian Indigenous HealthInfoNet](#).

See Also:

[EarHealthForLife: A National Approach to Monitoring Ear Health for Australian Indigenous](#)

*"Governor Brown has succeeded in highlighting the global momentum evident in addressing climate change, but also that there is so much more to be done to meet the goals of the Paris Agreement. With Lord Stern (from LSE) showing the US \$26 trillion in economic benefit on offer through bolder climate action, there shouldn't be anything holding us back. The Summit brought together a large number of investors who are demonstrating the healthy return to be found whilst also protecting the planet. This is a compelling formula which others will follow. Their actions will be reinforced by those world leaders who understand the economic and job creation benefits that a low-carbon economy provides."*

**Stephanie Pfeifer, CEO of the Institutional Investors Group on Climate Change (IIGCC) at the Global Climate Action Summit, San Francisco, CA**

[Read more at Medium.](#)



## EVENTSTABLE

DATES	CONFERENCE	LOCATION	REGISTER
Sept. 29th	7th Annual Action Global Health Network Conference	Ottawa Canada	Please e-mail <a href="mailto:aghn2017.research@gmail.com">aghn2017.research@gmail.com</a> for more information
Oct. 4th	Who are Refugees?	Toronto Canada	<a href="https://www.eventbrite.com/e/who-are-refugees-tickets-50573841722?ref=estw">https://www.eventbrite.com/e/who-are-refugees-tickets-50573841722?ref=estw</a>
Oct. 8th-12th	5th Global Symposium on Health Systems Research	Liverpool England	<a href="http://healthsystemsresearch.org/">http://healthsystemsresearch.org/</a>
Oct. 18th	Integrative Health Institute Conference	Edmonton Canada	<a href="https://www.ualberta.ca/integrative-health-institute">https://www.ualberta.ca/integrative-health-institute</a>
Oct. 25th- 26th	Global Conference on Primary Health Care	Astana Kazakhstan	<a href="http://www.who.int/primary-health/en/">http://www.who.int/primary-health/en/</a>
Nov. 6th-13th	Course announcement: The Struggle for Health	Savar Bangladesh	<a href="https://iphu.org/en/announcement/iphu-savar2018">https://iphu.org/en/announcement/iphu-savar2018</a>
Nov. 8th-9th	Workshop: Rules of the Road 2.0	Washington USA	<a href="https://www.cugh.org/events/workshop-rules-road-20">https://www.cugh.org/events/workshop-rules-road-20</a>
Nov. 15th-19th	4th People's Health Assembly	Dhaka Bangladesh	<a href="https://archive.phmovement.org/en/node/10805">https://archive.phmovement.org/en/node/10805</a>
Nov. 19th-21st	Canadian Conference on Global Health	Toronto Canada	<a href="https://archive.phmovement.org/en/node/10805">https://archive.phmovement.org/en/node/10805</a>
Mar. 8th-10th	10th annual CUGH Conference - Translation and Implementation for impact in Global Health	Chicago USA	Panel and Abstract proposal deadline - August 25, 2018





## SPOTLIGHT ON MEDIA: MEDIA BIAS/FACT CHECK: THE MOST COMPREHENSIVE MEDIA BIAS RESOURCE

### Media Bias Fact Check



Credit: Media Bias Fact Check

Media Bias/Fact Check (MBFC News), founded by Dave Van Zandt in 2015, is an independent online media outlet. MBFC News is dedicated to educating the public on media bias and deceptive news practices. Its aim is to inspire action and a rejection of overtly biased media. We want to return to an era of straight forward news reporting. Funding for MBFC News comes from site advertising, individual donors, and the pockets of our bias checkers. MBFC News follows a strict methodology for determining the biases of sources. It also provides occasional fact checks, original articles on media bias and breaking/important news stories, especially as it relates to USA politics.

[Read more at Media Bias Fact Check.](#)

## THE BUSINESS OF VOLUNTOURISM: DO WESTERN DO-GOODERS ACTUALLY DO HARM?



Credit: Rex/Shutterstock

Every year, millions of people from wealthy nations travel to poor countries, hoping to do good. University students want to spend a school break or part of a summer giving back, perhaps even to improve their CV. All seek personal growth, connection to those less fortunate, and the satisfaction of making a difference. For many, the destination is an orphanage, where they aim to bring joy to needy children in the brief time they can spare. The aspiration to help the most vulnerable children is a noble one, but the booming business of “voluntourism” sustains practices and institutions that actually do harm. There is no such thing as a “good” orphanage, according to child development experts. Eighty years of research confirms that children do best in a family. They are far more likely to experience abuse, cruelty or neglect in an institution than in any other setting. Even in a well-run facility, children do not develop normally. In wealthy countries, the institutionalisation of children has almost completely stopped. Instead, governments offer services that can help families keep children with them; if that is not possible, they seek adoptive parents or foster families. These solutions are imperfect. Almost every poor country, by contrast, still puts children in institutions, even though the vast majority of those children have families. Wealthy countries, who consider orphanages harmful for their own children, nonetheless provide a stream of charitable giving that makes orphanages viable businesses abroad.

[Read more at The Guardian.](#)



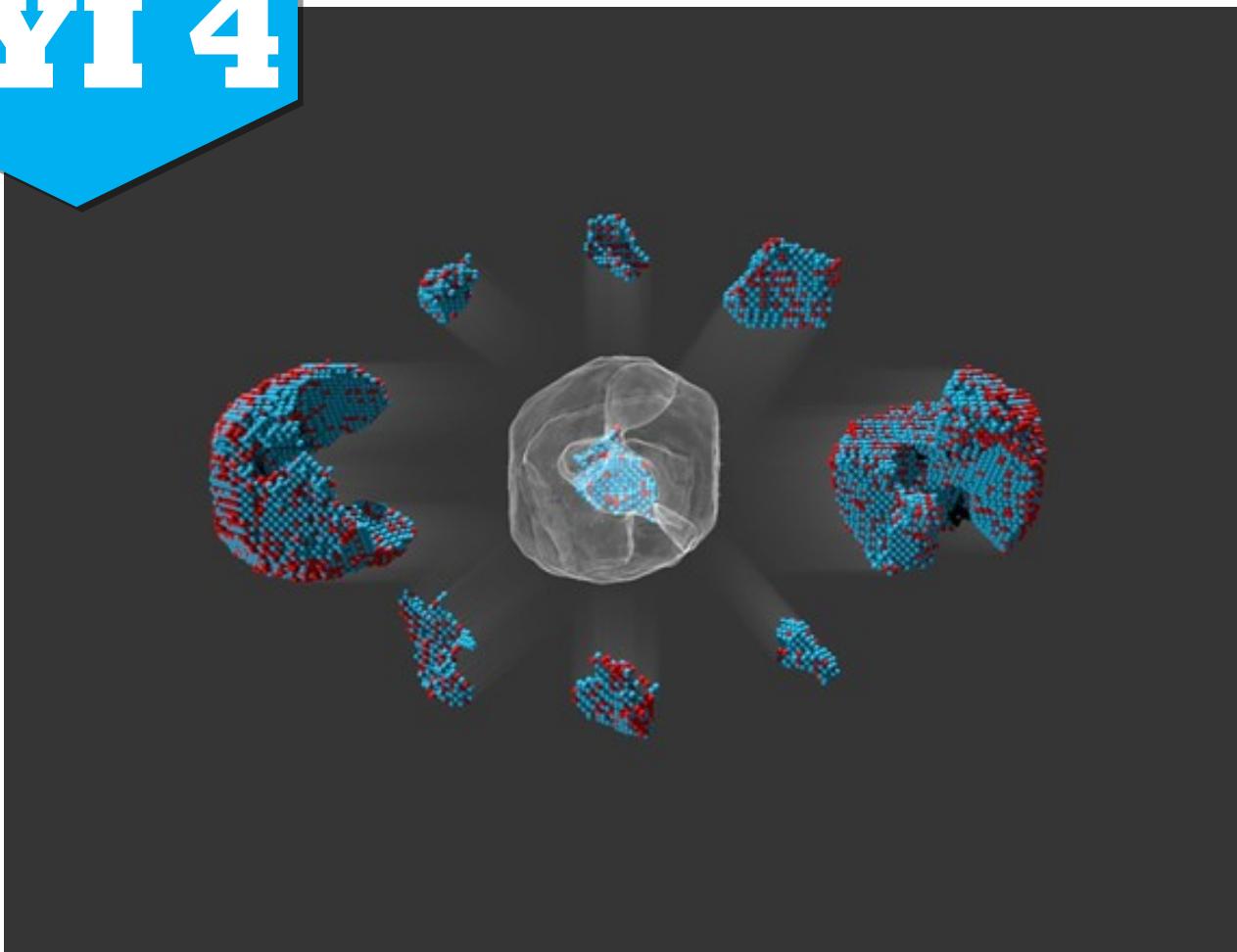
Credit: C.D. Miller, USGS

There are five things that may surprise you about salt water, the most common substance on the surface of Earth.

1. Salt water carries the electrical signals that make life possible
2. Salt water acts as a conveyor belt to carry heat around the planet
3. Salt water can be used to suck carbon dioxide out of the air
4. Using salt water to build batteries could solve energy storage problems
5. We are unable to predict the simplest properties of salt water

Read more at [The Conversation](#).

## NEW MICROSCOPE SHOWS THE QUANTUM WORLD IN CRAZY DETAIL



Credit: Colin Ophus

The new transmission electron microscope was designed to break records. Using its beam of electrons, scientists have glimpsed many types of viruses for the first time. They've used it to study parts of biological cells like ribosomes and mitochondria. You can see individual atoms with it; a new record has been set. Publishing in *Nature* this July, they used their scope to take the highest resolution images to date. To do this, they had to create special lenses to better focus the electrons, sort of like "glasses" for the microscope. They also developed a super-sensitive camera, capable of quickly registering single electrons. Their new images show a razor-thin layer, just two atoms thick, of molybdenum and sulfur atoms bonded together. Not only could they distinguish between individual atoms, they could even see them when they were about only 0.4 angstroms apart, half the length of a chemical bond. They even could spot a gap where a sulfur atom was missing in the material's otherwise repeating pattern. In particular is a study of thin materials, one to two atoms thick, that exhibit unusual properties. Physicists recently discovered that one type of thin material, when layered in a certain way, becomes superconducting. The microscope may help reveal the underlying mechanisms behind such properties.

Read more at [WIRED](#).

## FULL-FAT DAIRY MIGHT NOT BE AS UNHEALTHY AS FEARED. BUT DON'T LOAD UP ON CHEESE YET.



Credit: iStock

Full-fat milk, also known as whole milk, has a bad reputation because it contains saturated fat, and saturated fat raises LDL — or “bad” — cholesterol. However, when looking at associations between actual dairy fat and health, results are mixed. That’s why, despite continuing to recommend limiting saturated fat, the US Dietary Guidelines Advisory Committee in 2015 called for more research examining the effects of saturated fats from different food sources, because they may affect cholesterol and health differently. Consider a recent study, published in July in the American Journal of Clinical Nutrition. It measured blood levels of three fatty acids known to correspond with dairy fat intake in 2,907 adults ages 65 and older. Researchers took samples at baseline, then six and 13 years later. All participants were free from cardiovascular disease at the start of the study. Over 22 years of follow-up, 2,228 participants died from various causes, but researchers found no significant links between long-term intake of dairy fat and any cause of death, including from heart disease or stroke. In fact, one type of saturated fatty acid in dairy was associated with lower risk of stroke-related death. This study lends support to the general findings of long-term observational studies that dairy foods either reduce risk of cardiovascular disease and diabetes or simply have no effect. That includes higher fat as well as lower fat dairy.

[Read more at The Washington Post.](#)

# FYI 6

## EDUCATORS BELIEVE EDUCATIONAL TECHNOLOGY CAN PERSONALIZE LEARNING—AND WANT ADDITIONAL SUPPORT IN TRAINING AND PROFESSIONAL DEVELOPMENT



Credit: Dreamstime.com

DreamBox Learning® and PBS, in partnership with the Education Week Research Center, surveyed teachers and administrators on IF educational technology can be an effective tool for differentiation to improve student outcomes. The white paper explores:

- Key findings that explore the value of personalized learning to educators
- Current challenges for teachers using educational technology
- How the right support can meet the needs of educators

Read more at [DreamBox Learning](#).

First Hints of Autumn  
Whitefish Lake, Ontario  
September 25, 2018



Credit: David Zakus

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