

# PLANETARY HEALTH WEEKLY

**BRINGING YOU CURRENT NEWS ON GLOBAL HEALTH & ECOLOGICAL WELLNESS** 

June 29, 2017

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### THE GLOBAL INEQUALITY OF BLOOD SUPPLIES

Giving blood is more popular in rich countries, but not in all parts of the world. Nearly 30% of blood donations occur in Europe, which has about a tenth of the world's population. Sub-Saharan Africa, which has a larger share of the global population, accounts for less than 5% of blood supplies. An analysis shows that blood donations relative to a country's population are strongly correlated with wealth. But where a country is located matters a lot, too. Rates of blood-giving in rich Middle Eastern countries are two to three times lower than those in similarly wealthy European countries. Europeans are also keener blood donors than Latin Americans. In places where the practice is unpopular, most of the blood supply is usually from paid donors or relatives of those who need transfusions. By contrast, most of the countries with the highest blood donation rates are among those where all givers do so for free and simply to help strangers.

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**Read More on The Economist** 

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# WILDFIRES USED TO BE RARE IN THE GREAT PLAINS. THEY'VE MORE THAN TRIPLED IN 30 YEARS

The grasslands of U.S. Great Plains have seen one of the sharpest increases in large and dangerous wildfires in the past three decades, with their numbers more than tripling between 1985 and 2014. A new study, published in the journal *Geophysical Research Letters*, found that the average number of large Great Plains wildfires each year grew from about 33 to 117 over that time period, even as the area of land burned in these wildfires increased by 400 percent. "This is undocumented and unexpected for this region," said Victoria Donovan, the lead author of the study and a researcher at the University of Nebraska at Lincoln. "Most studies do document these shifts in large wildfires in forested areas, and this is one of the first that documents a shift, at this scale, in an area characterized as a grassland." In other parts of the globe, such as Africa's savannas, grassland fires are extremely common, and that used to be true for the Great Plains as well. But in the past century or more, Donovan explained, wildfire suppression techniques, such as rapidly catching fires and putting them out, had largely eradicated them from the region.

**Read More on The Washington Post** 



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#### India's Improving Economy Driving Diabetes Rise Among Urban Poor

Diabetes in India is undergoing a demographic transformation, shifting from largely afflicting the affluent to increasingly burdening the poor and middle income population. According to a new study, this metabolic disorder that is often brought on due to dietary practices and lifestyle behavior is increasingly affecting the urban poor in part due to the improving economy. The study, published in the *The Lancet Diabetes & Endocrinology* journal, is the largest nationally representative study of diabetes in India. On average, the study found that diabetes was twice as common in urban areas as rural, 11.2 percent and 5.2 percent respectively. And although the disease was still more common, it was actually higher among the urban poor in seven of the more economically advanced states. The global health community has become increasingly concerned in general about the vicious cycle in which poverty is contributing to rising rates of non-communicable diseases, but non-communicable diseases are also exacerbating poverty.

Read More on Humanosphere

### Projected Spread of Drug-Resistant Tuberculosis Threatens Elimination Targets

Drug-resistant tuberculosis is projected to spread over the next 20 years in four countries that already have a high burden of the disease: Russia, India, the Philippines and South Africa. The expected rise in cases jeopardizes elimination targets set by the World Health Organization (WHO). A new study by the U.S. Centers for Disease Control and Prevention projected that by 2040, one-third of tuberculosis (TB) cases in Russia will likely be drug-resistant. One in 10 cases in India and the Philippines will be drug-resistant as well, while one in 20 cases will be drug-resistant in South Africa. These four countries represent a wide range of epidemiological conditions, and nearly 40 percent of all drug-resistant TB already occurs within their borders, more than 230,000 cases in 2015. However, according to the study, the cases in Russia, India, the Philippines and South Africa will not steadily increase because of strains acquiring resistance to drugs. Instead, it will likely be due to an increase in person-to-person transmission of strains that are already either "multidrug-resistant", to more than one of the vital first-line drugs, or "extensively drug-resistant", to fluoroquinolones and at least one of the second-line injectable drugs as well.







### Community Health Workers Feel Unrecognized and Undervalued

Community Health Workers (CHWs) feel unrecognised and undervalued by community leaders and health professionals. This was the central message from a major thematic discussion held on the Healthcare Information For All (HIFA) forums. More than 60 HIFA members contributed their experience and expertise to the discussion, including CHW programme managers, researchers and policymakers, as well as a large number of CHWs and ASHAs from India and Uganda. Other major concerns were: lack of training and supervision; access to healthcare information; remuneration; equipment, medicines, and need for mobile phones/computers. CHWs said they are asked to carry out a wide range and ever increasing number of tasks, but often without the appropriate facilities to enable this. CHWs feel unrecognised and undervalued by official health care providers which not only reduces morale but also creates a disjoint between perceived influence by community, and their actual influence, reducing their respect from the community. Furthermore, this lack of respect is reflected in their lack of training and supervision, and results in a paucity of avenues for them to voice their needs and concerns.

**Read More on HIFA** 

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### The Rapid Sinking of Louisiana's Coast Already Counts As a 'Worst Case Scenario'

It's common knowledge that the coast of Louisiana is quietly sinking into the balmy Gulf waters. But new research suggests we may have been underestimating how quickly it's happening. A new paper, in the Geological Society of America's bulletin *GSA Today*, includes an updated map of the Louisiana coastline and the rate at which it's sinking into the sea, a process scientists call "subsidence," which occurs in addition to the climate change-caused process of sea-level rise. The new map suggests that, on average, the Louisiana coast is sinking at a rate of about 9 millimeters, or just over a third of an inch, per year, a faster rate than previous studies have suggested. Scientists have long known that Louisiana is sinking. Subsidence is believed to be a natural process, which has likely been occurring in the region for thousands of years. But scientists believe the process has been enhanced by a variety of human activities in the Mississippi Delta over the past century, including oil and gas extraction, as well as the building of levees and other actions affecting the flow of the Mississippi River, which carries mud and sediment down toward the Gulf and helped build up the delta in the first place.

### A New Push for Coal Mining in Colorado Roadless Forest

Shortly after announcing a planned U.S. exit from the historic Paris climate agreement, Trump's administration pushed ahead with another senseless and destructive action: letting a potential 17 million tons of coal be mined out of 1,700 acres of roadless, wild public lands in Colorado's Gunnison National Forest. The mine expansion plan follows numerous other Trump actions embracing outmoded dirty coal. These include quashing rules that stop mines from dumping millions of tons of metal-laced waste rock and heavy-metal poisons into waterways, as well as rules limiting health-threatening air pollutants from coal-fired plants.



#### Read More on Biological Diversity



#### Latest Popemobile Is An Electric Car Made in Michigan

Francis, the current Pope, has a preference for small, simple, environmentally friendly cars, and largely does without the bulletproof glass enclosures found in some previous "Popemobiles." His latest vehicle is entirely electric and, perhaps to the surprise of some Europeans, it's made in Michigan. Specifically, it's an Opel Ampera-e, the rebadged and minimally restyled European sibling of the car known in North America as the Chevrolet Bolt EV. It fits neatly with Vatican City's goal of becoming the first country in the world to emit no carbon, through use of renewable energy sources and electric vehicles. Opel CEO Karl-Thomas Neumann presented the keys of a new Opel Ampera-e to Pope Francis during the conference "Laudato Sì: the Sustainability of Communication and Innovation." That event, which convened representatives of institutions, entrepreneurs, experts and opinion leaders, addressed key environmental sustainability issues. Among the discussions were the shape and carbon footprint of future mobility. As part of its contribution, the carmaker pledged to work with the Vatican and Italian energy company Enel on a program of sustainable mobility for the entire city-state. Opel notes that the Ampera-e is rated at 520 kilometers (323 miles) on the NEDC test cycle used in European Union countries.

Read More on Green Car Reports

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### Lessons on Conservation From the 'Land of Eternal Mangroves'

People are still missing in Sri Lanka after devastating floods and landslides last month killed hundreds and displaced thousands on the island nation. But in communities all along the coastline of this island nation in the Indian Ocean, there are efforts to protect ecosystems that could in turn protect the country from rains and storms capable of wiping away entire towns. Sri Lanka is working on mangrove forest protection measures that have been praised as the first of their kind in the world. And while recent heavy rains may have destroyed seedlings, they have only strengthened the determination of the government and its partners to continue their work on mangrove conservation and restoration. "Weather events in Sri Lanka as elsewhere on the planet, have become more and more extreme and unpredictable. Communities with intact mangrove forests fare better during and in the aftermath of these events than those where mangroves have been destroyed," said Karen Peterson, who manages the Sri Lanka mangrove conservation project for Seacology, a California-based conservation organization that works with island communities. As the Sri Lankan mangrove conservation project enters its third year, Seacology has learned a few key lessons it can share with other projects.

**Read More on Devex** 

#### **SPOTLIGHT ON POLICY:**

#### China Pollution: Survey Finds 70% of Firms Break Regulations

An inspection of companies based around Beijing found more than 70% were violating air pollution regulations. Firms pumped out more emissions than allowed and operated without licences or had insufficient pollution control equipment. Checks were carried out at thousands of companies at 28 cities in and around the Beijing-Tianjin-Hebei region. Air pollution in Chinese cities is notoriously bad. The findings appear to confirm suspicions that companies ignore strict environmental protection policies and that officials do not enforce them, correspondents say. Inspections found that more than 13,000 companies had failed to meet environmental standards, the ministry of environmental protection said in a statement. China's government is under pressure to do more to address the sources of smog, including reducing reliance on coal-fired power plants, the country's primary source of electricity. Earlier this year, Beijing's mayor said a new team of environmental police would try to reduce smog levels by 30 percent by tackling local sources of air pollution, including open-air barbecues and dusty roads. **Read More on BBC News** 





#### SPOTLIGHT ON INDIGENOUS HEALTH:

### Fossil Fuel Projects at Odds with Actions on Climate and Indigenous Rights

This Briefing Paper evaluates the progress being made in Canada to reduce green-house gas (GHG) emissions in light of the goals set by the Paris climate conference. It examines how recently approved fossil fuel infra-structure projects are undermining mitigation efforts, and it explores mitigation efforts, and how Indigenous peoples and allied social movements are responding by mounting strong resistance to new fossil fuel extraction projects while striving to build low-carbon alternatives with particular reference to the expansion of the Kinder Morgan Trans Mountain pipeline.

**Download and Read More on Kairos Canada** 

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#### **QUOTE OF THE WEEK**

"Development economists are flying around the world to discuss and debate the challenge of creating jobs in the developing world. They will use automated check-in, both in the US and in developing countries. We cannot continue to ignore the obvious that technological progress is being driven in rich countries by distorted prices and availability of labor and is then inefficiently and uneconomically destroying jobs all over the world, making the dreams of billions around the world of escaping poverty and aghieving prosperity through productive work harder and harder to achieve

**Lant Pritchett** 

Senior Fellow at the Centre for Global Development

### EVENTSTART.

DATE	CONFERENCE	LOCATION	REGISTER	
July-Sept	Aboriginal Conferences	Canada	http://aboriginalconferences.ca/	
July 25-27	Pedagogy For The Anthropocene: Re-Rooting Academic Knowledge in Nature	Toronto Canada	http://docs.google.com/forms/d/ e/1FAIpQLSofqDbn3qR- F5XpU09k_mhfkPp6SOj3w4- vQsouYH1oVuYnQ/viewform?c=0&w=1	
0ct 29-31	Canadian Conference for Global Heath	Montreal Canada	http://www.ccgh-csih.ca/ccgh2015/index	
27-31		Ganada		









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### GLOBAL CATASTROPHIC RISKS 2017



The Global Challenges Foundation's annual report "Global Catastrophic Risks 2017" is based on the latest scientific research. It contains contributions from leading experts, and summarizes the current status of global efforts to manage catastrophic risks. The GCF has also commissioned an international survey, in which 8,000 members of the general public in eight countries have given their views on global risks and how to handle them. The annual report and the survey provide a background to the challenges ahead, and the risks addressed by the Global Challenges Prize 2017: A New Shape.

Read the Annual Report on Global Challenges

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This month's Research Round-up focuses on the social dimensions of climate change communication and engagement, paying particular attention to the factors which make it difficult for people to talk about climate change, and presents our take on three recent articles.

The first study tested the claim that environmentalists are more likely to adopt highly visible environmental behaviours and anti-environmentalists are more likely to avoid those behaviours. The second study explored how people evaluate an individual who confronts someone who has made racist comments, compared with someone who confronts a person expressing disregard for climate change. And the final study looked at the impact of two issues, feeling confident about talking about climate change and believing that talking about climate change will create a positive impact - in motivating people to talk about the issue and break climate silence.

#### **Read More on Climate Reaction**



## OH, LOVELY: THE TICK THAT GIVES PEOPLE MEAT ALLERGIES IS SPEADING



First comes the unsrcatchable itching, and the angry blossoming of hives. Then stomach cramping, and, for the unluckiest few, difficulty breathing, passing out, and even death. In the last decade and a half, thousands of previously protein-loving Americans have developed a dangerous allergy to meat. And they all have one thing in common: the lone star tick.

Red meat, you might be surprised to know, isn't totally sugar-free. It contains a few protein-linked saccharides, including one called galactose-*alpha*-1,3-galactose, or alpha-gal, for short. More and more people are learning this the hard way, when they suddenly develop a life-threatening allergy to that pesky sugar molecule after a tick bite.

One bite from the lone star tick, which gets its name from the Texas-shaped splash of white on its back, is enough to reprogram your immune system to forever reject even the smallest nibble of perfectly crisped bacon. For years, physicians and researchers only reported the allergy in places the lone star tick calls home, namely the southeastern United States. But recently it's started to spread. The newest hot spots? Duluth, Minnesota, Hanover, New Hampshire, and the eastern tip of Long Island, where at least 100 cases have been reported in the last year. Scientists are racing to trace its spread, to understand if the lone star tick is expanding into new territories, or if other species of ticks are now causing the allergy.

#### **Read More on The Wired**

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Raging forest fires in central Portugal killed at least 62 people, many of them trapped in their cars as flames swept over a road, in what the prime minister on Sunday called "the biggest tragedy" the country has experienced in years.

Portugal has declared three days of national mourning for the victims in the blaze "which has caused an irreparable loss of human life," according to a government statement. Nearly 60 other people were injured, including four firefighters and a seriously injured minor, Interior Ministry official Jorge Gomes told state broadcaster RTP.

A lightning strike is believed to have sparked the blaze in the Pedrogao Grande area after investigators found a tree that was hit during a "dry thunderstorm," the head of the national judicial police told Portuguese media. Dry thunderstorms are frequent when falling water evaporates before reaching the ground because of high temperatures. Portugal, like most southern European countries, is prone to forest fires in the dry summer months. "This is a region that has had fires because of its forests, but we cannot remember a tragedy of these proportions," said Valdemar Alves, mayor of Pedrogao Grande. "I am completely stunned by the number of deaths."

A huge wall of thick smoke and bright red flames towered over the top of trees near houses in the wooded region. Local resident Isabel Brandao told The Associated Press that she had feared for her life. The European Union said it had activated its civil protection efforts responding to a call for assistance by Portuguese authorities. EU Commissioner for Humanitarian Aid and Crisis Management Christos Stylianides expressed his condolences for the victims in a statement, saying the "EU is fully ready to help."

As a result, a Spanish firefighting aircraft was already assisting on Sunday morning and another one was expected to arrive later in the day. France was also sending three aircraft. Prime Minister Antonio Costa said that firefighting crews were having difficulties in approaching the area because the fire was "very intense." The loss of life due to forest fire was the biggest in memory in Portugal. It has been over 50 years since 25 Portuguese soldiers perished fighting wildfires in 1966.

Read More on Global News See Also on Wikipedia

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In the wake of President Trump's decision to withdraw from the Paris agreement, a dozen states and more than 300 cities have pledged to reduce greenhouse-gas emissions in line with the Paris targets. The move suggests a possible future for climate change policy in the Trump era. States and cities are taking on the brunt of climate responsibility, building green energy capabilities and meeting ambitious climate targets in the process. There is no replacing the federal role in setting the larger climate agenda, without which the country is unlikely to meet more ambitious targets. But states and cities should still do all they can to fight for sensible climate policy in the absence of a sensible president. In many cases, that work is already underway and shows no signs of slowing.

Despite the president's focus on bolstering the coal industry, the sector faced persistent declines over the past decade. This is important for reducing greenhouse-gas emissions since coal produces more carbon dioxide than other common forms of energy and is one of the leading causes of global warming. States have been lured away from coal by cheaper alternatives and an abundance of cleaner natural gas, market forces that are not easily manipulated by Trump's policies. The rise of natural gas and decline of coal was partly responsible for falling CO2 emissions, 18 percent below projections made in 2008 by the Annual Energy Outlook.

Once prohibitively expensive, renewable energy is becoming increasingly affordable, especially in sunnier and windier parts of the country. The price of solar cells, for example, plummeted in recent years, allowing states like California — a role model for climate policy at the state level — to substantially increase investment in that technology. An analysis by the University of Texas Energy Institute found that for most of the country, natural gas and wind power are the cheapest forms of new energy capacity. But when other factor costs like health, availability of water and government regulations are factored in, solar, wind, nuclear and other greener energies prove even cheaper in some parts of the country. The institute based its findings on 2015 data, and some of those technologies are probably even more cost effective now.

Read More on New York Times

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To Gwen Beatty, a junior at the high school in this proud, struggling, Trump-supporting town, the new science teacher's lessons on climate change seemed explicitly designed to provoke her. So she provoked him back.

When the teacher, James Sutter, ascribed the recent warming of the Earth to heat-trapping gases released by burning fossil fuels like the coal her father had once mined, she asserted that it could be a result of other, natural causes. When he described the flooding, droughts and fierce storms that scientists predict within the century if such carbon emissions are not sharply reduced, she challenged him to prove it. "Scientists are wrong all the time," she said with a shrug, echoing those celebrating President Trump's announcement that the United States would withdraw from the Paris climate accord. When Mr. Sutter lamented that information about climate change had been removed from the White House website after Mr. Trump's inauguration, she rolled her eyes. "It's his website," she said.

For his part, Mr. Sutter occasionally fell short of his goal of providing Gwen, the most vocal of a raft of student climate skeptics, with calm, evidence-based responses. "Why would I lie to you?" he demanded one morning. "It's not like I'm making a lot of money here." She was, he knew, a straight-A student who would have no trouble comprehending the evidence, embedded in ancient tree rings, ice, leaves and shells, as well as sophisticated computer models, that atmospheric carbon dioxide is the chief culprit when it comes to warming the world. Or the graph he showed of how sharply it has spiked since the Industrial Revolution, when humans began pumping vast quantities of it into the air.

Thinking it a useful soothing device, Mr. Sutter assented to Gwen's request that she be allowed to sand the bark off the sections of wood he used to illustrate tree rings during class. When she did so with an energy that, classmates said, increased during discussion points with which she disagreed, he let it go. Gwen, 17, could not put her finger on why she found Mr. Sutter, whose biology class she had enjoyed, suddenly so insufferable. Mr. Sutter, sensing that his facts and figures were not helping, was at a loss. And the day she grew so agitated by a documentary he was showing that she bolted out of the school left them both shaken.

#### **Read More on New York Times**

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