



PLANETARY HEALTH WEEKLY

BRINGING YOU CURRENT NEWS ON GLOBAL HEALTH & ECOLOGICAL WELLNESS

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Most of The World Doesn't Have Access to X-Rays

The World Health Organization estimates that two thirds of the planet does not have access to basic radiology services: simple x-rays. The global radiology gap is far less discussed than infectious-disease outbreaks and natural disasters, but its dangers to public health are every bit as urgent. It affects the whole entire global health care system. Without radiology most health care systems have serious gaps and can't provide any care. The ultimate goal is to improve the medical infrastructure in a country to the point where that infrastructure becomes the basis for the community's health care.

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Wind Solar Almost Half The Cost of New Coal Generators in South Africa

The cost of wind and solar energy has fallen so dramatically that wind and solar plants can now be built in South Africa at nearly half the cost of new coal plants. It's a standout result for South Africa, which unlike developed economies has a shortage of power rather than a surplus, so needs to build new capacity to meet the demands of its growing population and economy. South Africa has also brought down the cost of solar dramatically in five years since it began competitive tenders for large scale projects. The cost of wind energy has also fallen by 60 percent. But they also have implications for countries like Australia, which over the next two decades will need to replace much of its existing fossil fuel capacity. Solar and wind, which are following a similar trajectory in Australia, will present similar price advantages.

[Read More on Clean Technica](#)

[See also: Renewable Energy Capacity Overtakes Coal on BBC](#)





Global Progress on Reducing Child Deaths

Due to fewer cases of pneumonia, diarrhea, death during birth, malaria and measles, there is much global progress on reducing child deaths. Estimates for 2015 suggest that 5.9 million children worldwide died before reaching the age of five, including 2.7 million newborns. Globally, four million fewer child deaths occurred in 2015 than in 2000, mainly thanks to reductions in deaths from pneumonia, diarrhea, malaria and measles. However, progress on reducing newborn deaths has been slower meaning that as a whole the world failed to reach the Millennium Development Goal (MDG) target of reducing child deaths by two thirds between 1990 to 2015. Child survival has improved substantially since the Millennium Development Goals were set even though the target to reduce child deaths by two thirds was not achieved.

[Read More on Science Daily](#)

Violence Epidemiology and Measuring the Real Death Toll of the Iraq War

Dr. Lafta is an epidemiologist who focuses on violence and was one of the leading public health researchers who challenged the U.S. government claims of low civilian casualties from the 2003 Iraq War. Lafta and his colleagues did several surveys that showed that the U.S. invasion and ensuing occupation has caused hundreds of thousands of civilian deaths. Further, they hope to draw attention to the ongoing legacy of war, the persistent problems caused by destroyed or disrupted basic services such as for health care, water and shelter, the many orphaned children or widowed mothers, and other disruptions.

[Read More on Humansphere](#)



Importance of Universal Sanitation Underestimated in Efforts to Reduce Child Mortality

The value of sanitation in reducing child mortality in many low income countries has been substantially underestimated, according to recent research. The World Health Organization concludes that vital health benefits of access to sanitation facilities such as latrines will only be seen once a certain level of coverage across a community is achieved. The study suggests that the health benefits from better sanitation differ from other similar public health interventions such as improved drinking water in that the benefit is for the community not the individual user. Future studies should use community coverage with improved sanitation as a primary predictor, rather than personal access.

[Read More on Science Daily](#)



The Global Burden of Lead Toxicity Attributable to Informal Used Lead-Acid Battery Sites

Prior calculations of the burden of disease from environmental lead exposure in low and middle income countries have not included estimates of the burden from lead contaminated sites because of a lack of exposure data, resulting in an underestimation of a serious public health problem. Statistics and detailed site assessments model the number of informal used lead acid battery recyclers and the resulting exposures in 90 low and middle income countries. There are 10, 599 to 29, 241 processing sites where human health is at risk in the 90 countries reviewed. 6 to 16.8 million people are exposed to lead acid battery sites.

[Read More on Annals of Global Health](#)

Two Thirds of Wild Animals Will Be Gone by 2020

Biodiversity is being massively threatened. The number of wild animals living on Earth is set to fall by two thirds by 2020 part of a mass extinction that is destroying the natural world, upon which humanity depends. Scientific data found that the destruction of wild habitats, hunting and pollution were to blame. The creatures being lost range from mountains to forests to rivers and the seas and include well known endangered species such as elephants and gorillas and lesser known creatures such as vultures and salamanders.

[Read More on Un Dispatch](#)



Senegal in Renewables Drive as New Solar Park Unveiled

Senegal put into service one of sub-Saharan Africa's largest solar energy projects as it pushes to become a regional player in renewables on a continent where the majority remain off-grid. The 20 megawatt Synergy 2 project in Bokhoi, close to the Mauritanian border, will service 160, 000 people with electricity, and will contribute to Senegal's target of service 20 percent of its energy needs with renewables by the end of 2017. The \$28 million project will prevent the emission of 23, 000 tonnes of carbon dioxide every year. Two more upcoming solar projects will add another 50 megawatts of power to the Senegalese grid by the end of January alone, boosting a current capacity of 850 megawatts. Senegal is pushing to become an example for renewables in west Africa, which lags behind other regions in its uptake of the technology.

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Research Underscores Importance of Increased Global Commitment to Early Childhood Development

An estimated 43 percent of children under five in low and middle income countries (249 million), are at an elevated risk of poor development due to extreme poverty and stunting, according to findings from *The Lancet's* new series, Advancing Early Childhood Development Interventions. These include nurturing care, health, nutrition, responsive care giving, security and safety, and early learning, and may cost as little as 50 cents per child per year, when combined with existing services such as health. The findings in this Series underscore the importance of increased global commitment to early childhood development. Early childhood development will not only benefit the children of today, but will have a direct impact on the stability and prosperity of nations in the future.

Three Tips to Design Tax Policies for Healthier Diets

When using taxes to promote healthier diets, policymakers are faced with considerations such as what products to tax, what type of tax to implement and what substitutes or market alternatives are available if consumers indeed stray from newly taxed items. Of the examples reviewed by the World Health Organization, in response to members states requests, a guide was provided to help them design their own tax policies to promote healthier food and beverage consumption. A smart tax policy promotes healthy diets, however it first requires a number of considerations. Policymakers must identify the right products to tax, have a better understanding of the different tax types and how they impact consumer behaviour, and ensure consumers are making healthier choices after the tax policy is implemented.

[Read More on Devex](#)



SPOTLIGHT ON INDIGENOUS HEALTH:

Understanding Mapuche-Williche Conceptions of Diabetes Mellitus and Arterial Hypertension from the Perspective of Intercultural Health

In order to create a culturally relevant health model, users from Mapuche-Williche's community of Chile's largest Indigenous population explained the cause of diabetes Mellitus and Hypertension. The Mapuche-Williche cultural system involves a therapeutic process during which traditional Mapuche-Williche medicine may complement, alternate with, or substitute for traditional Allopathic Medicine. Diabetes Mellitus and Hypertension are not recognized illnesses within traditional Mapuche-Williche medicine. This creates difficulties in terms of adherence to biomedical treatment. Patients substitute traditional healing for biomedicine. These considerations suggest the need to develop an intercultural health model within the commune of Rio Negro.

[Read More on Social Medicine](#)



QUOTE OF THE WEEK

Keith Ahsoon, in Ta'u Island, American Samoa, commenting on the recent installation of new solar panels, a microgrid and batteries by SolarCity and Tesla.

“This is part of making history. This project will help lessen the carbon footprint of the world. Living on an island, you experience global warming firsthand.

Beach erosions and other noticeable changes are a part of life here.

It's a serious problem, and this project will hopefully set a good example for everyone else to follow.”

[Read more on SolarDaily](#)


EVENTSTABLE

DATE	CONFERENCE	LOCATION	REGISTER
Nov. 21-24	9th Global Conference on Health Promotion	Shanghai, China	http://www.who.int/healthpromotion
April 6-9	2017 Annual CUGH Global Health Conference	Washington USA	http://www.cugh.org/events/2017-annual-cugh-global-health-conference
April 22-23	Global Health & Innovation Conference	Connecticut USA	http://www.uniteforsight.org/confernce/
May 4-6	International Conference on Healthcare in a Globalizing World	Pune India	http://symhealth.siu.edu.in/



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HIV ARRIVED IN THE U.S. LONG BEFORE 'PATIENT ZERO'



In the tortuous mythology of the AIDS epidemic, one legend never seems to die: Patient Zero, also known as, Gaétan Dugas, a globe-trotting, sexually insatiable French Canadian flight attendant who supposedly picked up HIV in Haiti or Africa and spread it to dozens, even hundreds, of men before his death in 1984.

Mr. Dugas was once blamed for setting off the entire American AIDS epidemic, which traumatized the nation in the 1980s and has since killed more than 500,000 Americans. The New York Post described him with the headline "The Man Who Gave Us AIDS."

But after a new genetic analysis of stored blood samples, bolstered by some intriguing historical detective work at the University of Sherbrooke, scientists on Wednesday declared him innocent. The strain of H.I.V. responsible for almost all AIDS cases in the United States, which was carried from Zaire to Haiti around 1967, spread from there to New York City around 1971, researchers concluded in the journal *Nature*. From New York, it spread to San Francisco around 1976. The new analysis shows that Mr. Dugas's blood, sampled in 1983, contained a viral strain already infecting men in New York before he began visiting gay bars in the city after being hired by Air Canada in 1974.

Humanizing Mr. Dugas could help in the fight to end the epidemic, said Dr. Robert M. Grant, an AIDS researcher at the University of California, San Francisco. Even though the disease can now be prevented and controlled, many people, in San Francisco and in Africa, he said, resist getting tested for HIV. and fool themselves into believing they are not at risk because they fear being blamed by their social circle. "No one wants to be the Patient Zero of their village," he said. "But this may be helpful because it says, 'Just because you are the first to be diagnosed doesn't mean you started the epidemic.'"

[Read More on the New York Times](#)



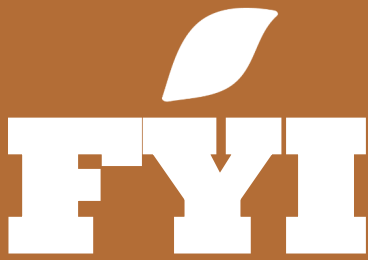
AMAZON FISHERY MANAGEMENT PROVIDES RARE WIN-WIN CHANCE FOR CONSERVATION AND POVERTY ALLEVIATION



A study into freshwater lake management along the Amazon's most meandering river has demonstrated astounding benefits to local livelihoods in replenishing vitally important fish stocks, a source of much-needed food and income. Eight years of data were used to measure how population sizes varied between managed, protected oxbow lakes and open-access lakes. The study demonstrated a dramatic rebound in arapaima populations that had been previously overfished in lakes under community-based management, concluding that these management programmes are a clear 'win-win' conservation solution, compatible with the socioeconomic reality of Amazonian countries. The study compares protected freshwater lakes along the Juruá River, a 3350-km long tributary of the Amazon, to 'high-interest savings accounts', vital for local food security. But efforts to protect these freshwater ecosystems are often hampered by conflicts with commercial fishing interests.

Community-based management of freshwater lakes can have profound impacts on conservation and local engagement. Local stewardship, in situ surveillance, full-time enforcement of resource access rights, and management of high-value fish stocks were the most important factors in boosting arapaima populations across a wide range of lakes, especially in close proximity to communities. Boosting these fish populations offers not only much-needed animal protein for the local community but also an unprecedented source of income. "Policy makers must focus greater attention on zoning resource use over entire river basins and include local communities in landscape, scale conservation planning, to ensure their continued success." There is a need to rethink how best to protect these freshwater ecosystems but efforts are hindered by political resistance to creating new or expanding existing protected areas. In fact there are likely to be severe setbacks in the total numbers or area of protected areas in many tropical countries, therefore decentralising conservation policies to communities and local stakeholders can be powerful and effective.

[Read More on Science Daily](#)



HOW SWEET IS IT: ARTIFICIAL SWEETENERS IN BLOOD



A recent study measured how much artificial sweetener is absorbed into the blood stream by children and adults after drinking a can of diet soda. The team measured the artificial sweeteners sucralose and acesulfame-potassium, which are found in a wide range of packaged foods and beverages. These artificial sweeteners, also including saccharin and aspartame, have received a lot of attention lately because it has been found that they are not inert chemicals with a sweet taste, but active substances that can affect the metabolism.

Despite their approval as food additives following the submission of detailed safety data to the United States Food and Drug Administration (FDA), concerns about their safety and especially about their long-term health effects remain. Artificial sweetener use is increasing worldwide because it is universally accepted that high sugar consumption promotes a variety of health problems, including obesity and diabetes. The food industry responds to the consumer demand, and increasingly replaces sugar with artificial sweeteners in order to provide tasty goods with lower sugar content. Most consumers expect that weight loss will result from switching to artificial sweeteners (because they contain no or fewer calories), but paradoxically the opposite may happen.

The findings of this study also highlight the fact that some people absorb relatively small amounts of artificial sweeteners and some exorbitantly high amounts. Overall, this study will help others with the design and interpretation of crucial future research to better understand what artificial sweeteners do to our health.

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WHO Cancer Agency Asked Experts to Withhold Weedkiller Documents



The World Health Organization's cancer agency advised academic experts on one of its review panels not to disclose documents they were asked to release under United States freedom of information laws.

In a letter and an email seen by Reuters, officials from the International Agency for Research on Cancer (IARC) cautioned scientists who worked on a review in 2015 of the weedkiller glyphosate against releasing requested material.

Its critics, including in industry, say the way IARC evaluates whether substances might be carcinogenic can cause unnecessary health scares. IARC assesses the risk of a substance being carcinogenic without taking account of typical human exposure to it. Pressure has been growing on the experts who worked on IARC's glyphosate review in part because other regulators, including in the United States, Europe, Canada, Japan and New Zealand, say the weedkiller is unlikely to pose a cancer risk to humans.

The conflicting scientific assessments have delayed a decision on whether glyphosate should be relicensed for sale in Europe, and prompted senior U.S. lawmakers to question whether IARC should receive funding from U.S. taxpayers. IARC defends its methods as scientifically sound and says its monographs, the name it gives to its classifications of carcinogens, are "widely respected for their scientific rigor, standardized and transparent process and . . . freedom from conflicts of interest."

[Read More on the Reuters](#)



BREWERY WASTEWATER TRANSFORMED INTO ENERGY STORAGE

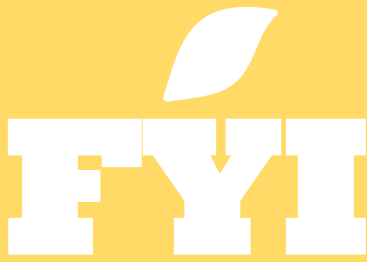


Engineers have developed an innovative bio-manufacturing process that uses a biological organism cultivated in brewery wastewater to create the carbon-based materials needed to make energy storage cells. This unique pairing of breweries and batteries could set up a win-win opportunity by reducing expensive wastewater treatment costs for beer makers while providing manufacturers with a more cost-effective means of creating renewable, naturally-derived fuel cell technologies.

The process of converting biological materials, or biomass, such as timber into carbon-based battery electrodes is currently used in some energy industry sectors. But, naturally-occurring biomass is inherently limited by its short supply, impact during extraction and intrinsic chemical makeup, rendering it expensive and difficult to optimize.

However, the CU Boulder researchers utilize the unsurpassed efficiency of biological systems to produce sophisticated structures and unique chemistries by cultivating a fast-growing fungus, *Neurospora crassa*, in the sugar-rich wastewater produced by a similarly fast-growing Colorado industry: breweries. By cultivating their feedstock in wastewater, the researchers were able to better dictate the fungus's chemical and physical processes from the start. They thereby created one of the most efficient naturally-derived lithium-ion battery electrodes known to date while cleaning the wastewater in the process. If the process were applied on a large scale, breweries could potentially reduce their municipal wastewater costs significantly while manufacturers would gain access to a cost-effective incubating medium for advanced battery technology components.

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HOW UNIVERSITIES ARE STEPPING UP TO THE CLIMATE CHALLENGE



Universities are being pushed to take a greater lead on clean energy investment to help offset their rising energy bills and greenhouse gas emissions. However, with emissions reduction becoming an increasing focus of universities' sustainability strategies, innovative approaches are already creating a buzz across campuses.

The Clean Energy Finance Corporation's recent market report "Clean energy opportunities for universities" estimates Australian universities are currently paying as much as \$700 million in energy costs each year and are responsible for annual emissions of more than one million tonnes of CO₂. The CEFC examined carbon emissions reporting, university energy and greenhouse gas reduction targets and university sector debt borrowings. It found compelling reasons for universities to increase their uptake of clean energy technologies and to consider the use of tailored debt finance to support these initiatives. The CEFC's involvement in the university sector includes: \$9.1 million in finance to the University of Melbourne for initiatives including voltage optimization, freezer upgrades, solar photovoltaics, solar thermal and micro-turbines; and the signing of a letter of interest regarding finance for Monash University's Transformative Energy Initiative, which includes new technologies and smart grids.

On average almost 70 per cent of university electricity use relates to heating, cooling and lighting. Large research facilities are particularly energy intensive. For example, the supercomputer in the National Computational Infrastructure Building at Australian National University guzzles 15 per cent of the university's energy. Many universities have installed rooftop or ground-mounted photovoltaic systems. According to the report, the University of Queensland has installed 5.6 megawatts of solar PV, more than 10 times as much as the next top solar university, Melbourne's Monash.

[Read More on the Fifth Estate](#)



Having such accessible and high quality health services is a great privilege often taken for granted.

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