



# PLANETARY HEALTH WEEKLY

BRINGING YOU CURRENT NEWS ON GLOBAL HEALTH & ECOLOGICAL WELLNESS

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<https://planetaryhealthweekly.com>

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## PEOPLE IN RICH COUNTRIES ARE DYING OF LONELINESS

Sociologists have long been warning about the dangers of increased isolation thanks to aging populations, scattered families, and cultures that promote the individual over the collective. Now, new research analyzing previous studies suggests people who fall into the loneliness trap are 50% more likely to suffer an early death than those who remain socially connected. 148 studies representing more 300,000 participants, found that greater social connection was associated with a 50% reduced risk of dying early. With an increasing aging population, the effect on public health is only anticipated to increase. Indeed, many nations around the world now suggest we are facing a 'loneliness epidemic'. Such "epidemics," while not confined to rich countries, are linked to prominent features of affluent culture: longer life expectancy, decreasing marriage rates, people having fewer children, more people getting divorced, and more people living alone.

[Read More on Quartz](#)



## GLOBAL STUDY FINDS INTENSE URBAN FLOODING, DRIER RURAL AREAS

A global analysis of rainfall and rivers shows signs of a radical shift in streamflow patterns, with more intense flooding in cities and smaller catchments coupled with a drier countryside. Drier soils and reduced water flow in rural areas, but more intense rainfall that overwhelms infrastructure and causes flooding and storm water overflow in urban centres. That's the finding of a study of the world's river systems, based on data collected from more than 43,000 rainfall stations and 5,300 river monitoring sites across 160 countries. As expected, the study found warmer temperatures lead to more intense storms. A warming atmosphere means warmer air, and warmer air can store more moisture. So when the rains do come, there is a lot more water in the air to fall, and hence, rainfall is more intense. More evaporation from moist soils is causing them to become drier before any new rain occurs, and moist soils that are needed in rural areas to sustain vegetation and livestock.

[Read More on The Fifth Estate](#)



## ALSO IN THIS ISSUE:

|  |    |
|--|----|
| Older Adults With HIV: An Overlooked Population          |    |
| Understanding Malaria with Mathematics                   |    |
| Quality of Antenatal Care in African Countries           | 2  |
| -----  |    |
| The World May Have to Spend \$7 Trillion Per Year to     |    |
| Remove Carbon Dioxide From Air                           | 3  |
| Afforestation with Non-Native Trees Alters Soils         |    |
| Federal "State of the Climate" Report Buries Human Roles |    |
| -----  |    |
| Ideology, Obesity and the Social Determinants of Health  |    |
| Applying for Refugee Status in Canada                    |    |
| Third Girl in Suicide Pact Dies in Ontario First Nation  | 4  |
| -----  |    |
| Quote of the Week on Climate Change and Events           | 5  |
| -----  |    |
| FYI#1: Global Warming Scenarios As Temps Rise            | 6  |
| -----  |    |
| FYI#2: Fracking Poisons Groundwater Within 1 km          | 7  |
| -----  |    |
| FYI#3: Data Science Can Help Fight Human Trafficking     | 8  |
| -----  |    |
| FYI#4: Sadness After Children Die in Indian Hospital     | 9  |
| -----  |    |
| FYI#5: The Incredible Edible Garden Movement             | 10 |
| -----  |    |
| FYI#6: Understanding Peer Review and Publishing          | 11 |
| -----  |    |
| Backpage: Great Blue Whale in Quebec                     |    |



## Older Adults with HIV; An Overlooked Population

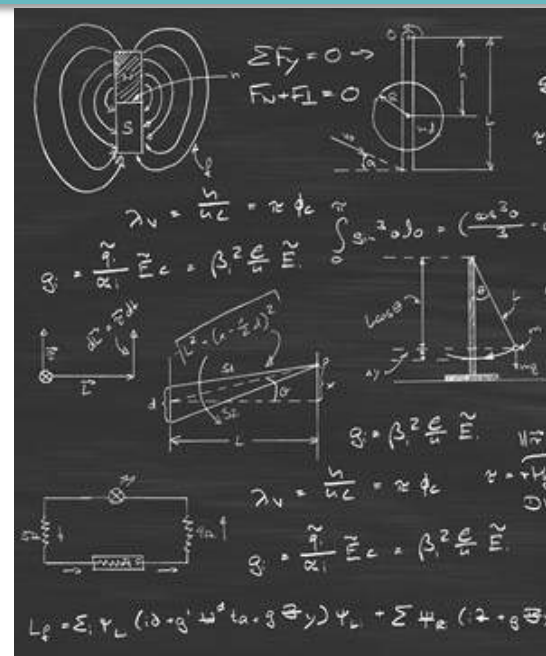
When it comes to HIV prevention and treatment, there is a growing population that is being overlooked, older adults, and implicit ageism is partially responsible for this neglect. "The lack of perceived HIV risk in late adulthood among older people themselves, as well as providers and society in general, inhibits investment in education, testing and programmatic responses to address HIV in an aging population," said presenter Mark Brennan-Ing, PhD, director for research and evaluation at ACRIA, a non-profit HIV/AIDS research organization in New York City. "Ageism perpetuates the invisibility of older adults, which renders current medical and social service systems unprepared to respond to the needs of people aging with HIV infection." There is an enduring misconception that HIV is a disease of the young, and in particular young gay and bisexual men, according to Brennan-Ing, but it is estimated that in developed countries with well-developed health care systems, almost half of all people living with HIV are 50 or older. In some countries, that number is expected to increase to 70 percent by 2020.

[Read More on Science Daily](#)

## Understanding Malaria with Mathematics

Mathematical formulas that model how deadly mosquito-borne diseases spread can help medical researchers accurately predict how real-life outbreaks develop and find countermeasures. For just over a century, epidemiologists have used increasingly complex and accurate mathematical models to try to predict how diseases such as malaria spread. Now, Malaysian computer scientists are designing a 'generic mosquito model' that promises to improve the way medical authorities can track the spread of many types of epidemics. The researchers liken what they call the 'random walks' of mosquito and human populations moving through space and time to a large-scale form of Brownian motion, a physics term that describes the random movement of tiny solid particles suspended in a fluid. The collection of formulas they used to model these random walks is described as a 'spatio-temporal' model because it incorporates the space- and time-related movements of mosquitos and humans. Using the formulas, the team modelled predictions of the spread and density of malaria over time in four districts in Sarawak, Malaysia. Mathematical models based on understandings of these time and space factors, and a disease's host and pathogens, can be used to forecast the spread and prevalence of infections.

[Read More on Science Daily](#)



## Quality of Antenatal Care Predicts Retention in Skilled Birth Attendance: A Multilevel Analysis of 28 African Countries

Across Africa, coverage of skilled birth attendance is lower than coverage for antenatal care, indicating mothers are not retained in the continuum between antenatal care and delivery. This paper explores predictors of retention of antenatal care clients in skilled birth attendance across Africa, including sociodemographic factors and quality of antenatal care received. Sub-Saharan Africa has the highest regional maternal mortality ratio in the world with 546 maternal deaths per 100,000 live births. The risk of maternal death peaks around the time of birth, when coverage of care is at its lowest. An effective continuum of skilled maternal care ensures that mothers receive essential health packages from pre-pregnancy to delivery, and postnatally, reducing the risk of maternal death. However, across Africa, the proportion of mothers that receive skilled birth attendance (51%) is lower than the proportion that receives any skilled antenatal care (78%). Where this difference is due to dropouts from skilled delivery care represents missed opportunities to reduce maternal mortality in Africa.

[Read the Paper on BioMed Central](#)





## The World May Have to Spend As Much As \$7 Trillion Per Year to Remove Carbon Dioxide From the Air

New research led by James Hansen, a Columbia University professor, estimates that if the world were to delay reducing carbon emissions until a later date, it could cost as much as \$6.7 trillion per year for at least 80 years after that date to reign in the effect of those emissions on the climate. For comparison, all the countries in the world combined spend about \$2 trillion annually on defense. That fact makes “the war on climate change” an apt metaphor. To reach that number, Hansen and his fellow scientists looked at the amount of carbon dioxide in the atmosphere currently. Carbon-dioxide levels have increased from 280 parts per million (ppm) before the industrial revolution to about 400 ppm today, largely as a result of our increased use of fossil fuels. If we were to do nothing to decrease our emissions right now, by 2100 our atmosphere would have more than 500 ppm CO<sub>2</sub>. The predictions for what the world would look like then are dystopian. Even if we began to decrease our emissions by as much as 6% per year, an ambitious but possible target to try to hit goals set out in the Paris Agreement, the world would still not reach the safe CO<sub>2</sub> level of 350ppm. We’ve simply put too much CO<sub>2</sub> into the atmosphere.

[Read More on Quartz](#)

## Afforestation With Non-Native Trees Alters Island Soils

A healthy global debate has occurred concerning the benefits of using non-native trees for restoring some aspects of ecosystem function in degraded habitats. In many cases, the stresses associated with establishing seedlings disallow most native tree species from becoming successfully established in harsh planting sites. The tolerant non-native trees enable successes that would otherwise be unachievable. “Most of these sorts of government-sponsored projects that use non-native trees are very mindful of the issue of invasiveness,” said author Thomas Marler. “Non-native species that have proven restoration attributes are only used in restoration projects if they exhibit no signs of invasiveness.” According to Marler, the use of Acacia trees has been enticing because the species that have been used are adept at becoming established in the inhospitable sites. And their positive influence on erosion control has been proven throughout decades of projects. But no case studies have been conducted until now to shed light on what these non-native trees are doing to Guam’s soil traits. The results indicated the soil chemistry and root-zone nutrient budgets have been altered by the Acacia tree cover, and the trajectory of change is in a direction that does not conform to any of the naturally vegetated sites from Guam. This Guam research contributes to the ongoing global discussions about the role of afforestation for revegetating tropical degraded habitats.

[Read More on Science Daily](#)



## Federal “State of the Climate” Report Buries Human Role in Global Warming

The “State of the Climate” report, compiled by 450 scientists from more than 60 countries, officially declared 2016 the hottest year on record since scientists began tracking this data over 150 years ago. Concentrations of the planet-warming gas carbon dioxide are also now higher than they’ve ever been in recorded history. The report reads like a greatest hits list of the usual climate change findings and warnings. But while the report occasionally mentions that greenhouse gas emissions, which trap warmth inside our atmosphere, are largely caused by human activities like burning fossil fuels, it appears to largely downplay the scientific consensus surrounding humanity’s role in causing climate change.

[Read More on Vice News](#)



## Ideology, Obesity and the Social Determinants of Health: A Critical Analysis of the Obesity and Health Relationship

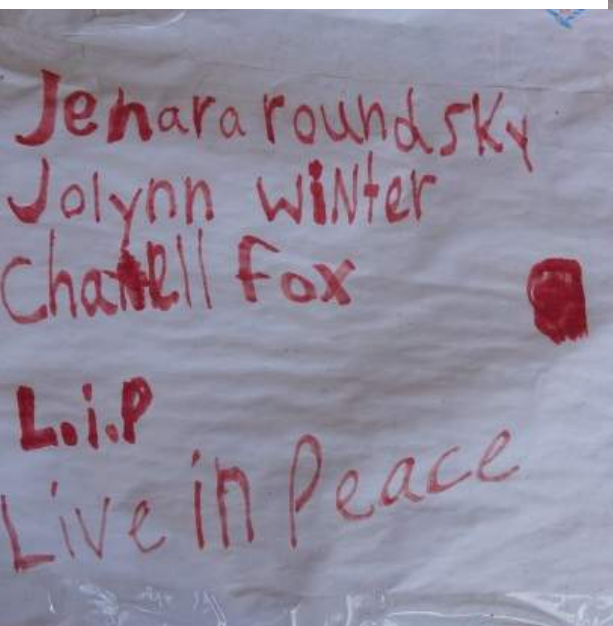
Based on a critical review of the obesity and health literature, five models depict a conceptual relationship between obesity and health. These models are applied to make sense of how recent Canadian public health reports and clinical practice guidelines conceptualize the issue of obesity, its causes and health effects, and appropriate responses. It shows how conformity to dominant models of the obesity and health relationship by health sciences researchers, public health workers, and the media lead to activities that rather than promoting health, actually threaten it. These dominant models, and the activities derived from them, do so by diverting attention from the far more important issues of the quality and distribution of the social determinants of health. These approaches also stigmatize heavy individuals, doing little to promote their health.

[Read the Full Report on Critical Public Health](#)

## SPOTLIGHT ON POLICY: BY AIR, SEA OR LAND: APPLYING FOR REFUGEE STATUS IN CANADA

You already know that Canada has a strong history of welcome refugees to the country, but do you know how asylum seekers apply for refugee in Canada? This flow chart shows you.

[View Flow Chart on UNHCR Canada](#)



## SPOTLIGHT ON INDIGENOUS HEALTH: THIRD GIRL INVOLVED IN SUICIDE PACT DIES IN REMOTE ONTARIO FIRST NATION

A suicide pact in Wapekeka First Nation in northern Ontario has resulted in the death by suicide of a third 12-year-old girl. Jenera Roundsky was declared dead after being discovered at the community hockey rink by another child. Roundsky was part of a suicide pact by young girls in Wapekeka discovered by community leaders last summer. Jolyn Winter and Chantel Fox, both 12 years old, took their own lives in January. Health Canada pledged \$380,000 for a local suicide prevention initiative after the deaths of Winter and Fox. The First Nation's proposal had initially been refused by Health Canada six months earlier when the suicide pact was discovered. Health Canada told CBC News last month that it would "continue to provide additional case management and mental health counselling supports for the months of May and June 2017." Emergency funding of \$95,000 forwarded by the government in February has now run out and no new money has arrived.

[Read More on CBC News](#)





## QUOTE OF THE WEEK

**"If given just one word to describe climate change, then 'unfairness' would be a good candidate. Raised levels of carbon dioxide in the atmosphere are expected to cause deadly heat waves for much of South Asia. Yet many of those living there have contributed little to climate change."**

**Professor Chris Huntingford, at the Centre for Ecology and Hydrology, Bailrigg, Lancaster (The UK's Centre of Excellence for integrated research in hydrology, terrestrial and freshwater ecosystems and their interaction with the atmosphere.)**

**[Read More on the Guardian](#)**

## EVENTSTABLE

| DATE          | CONFERENCE  | LOCATION              | REGISTER  |
|---------------|---|-----------------------|---|
| June-Sept     | Aboriginal Conferences  | Canada                | <a href="http://aboriginalconferences.ca/">http://aboriginalconferences.ca/</a>   |
| Sept<br>25-27 | Canadian Association of Community Health Centres 2017 Conference                            | Calgary<br>Canada     | <a href="https://www.cachc.ca/2017conference/?utm_source=CACHC+e-News&amp;utm_campaign=95ef99308c-EMAIL_CAMPAIGN_2017_06_20&amp;utm_medium=email&amp;utm_term=0_78768ad0495ef99308c-306041945">https://www.cachc.ca/2017conference/?utm_source=CACHC+e-News&amp;utm_campaign=95ef99308c-EMAIL_CAMPAIGN_2017_06_20&amp;utm_medium=email&amp;utm_term=0_78768ad0495ef99308c-306041945</a> |
| Sept<br>29    | Governance of Pharmaceuticals Policy Workshop   | Toronto<br>Canada     | <a href="http://www.pharmacy.utoronto.ca/whocc">http://www.pharmacy.utoronto.ca/whocc</a>   |
| Sept<br>30    | The 6th Annual uOttawa Global Health Conference   | Ottawa<br>Canada      | <a href="http://www.aghnconference.com/">http://www.aghnconference.com/</a>   |
| Oct<br>11-14  | The 48th Union World Conference on Lung Health: Accelerating Toward Elimination             | Guadalajara<br>Mexico | <a href="http://guadalajara.worldlunghealth.org/about-us/welcome">http://guadalajara.worldlunghealth.org/about-us/welcome</a>   |
| Oct<br>12     | Reframing Risk and Accountability for Action to Zero TB                                     | Guadalajara<br>Mexico | <a href="http://globalhealth.org/event/reframing-risk-and-accountability-for-action/">http://globalhealth.org/event/reframing-risk-and-accountability-for-action/</a>   |
| Oct<br>12     | Women Leaders in Global Health Conference   | Stanford<br>USA       | <a href="https://www.wlghconference.org/">https://www.wlghconference.org/</a>   |
| Oct<br>29-31  | Canadian Conference for Global Health   | Ottawa<br>Canada      | <a href="http://www.csih.org/en/events/canadian-conference-global-health">http://www.csih.org/en/events/canadian-conference-global-health</a>   |
| Nov<br>13-17  | 4th Global Forum on Human Resources for Health: Building the Health Workforce of the Future | Dublin<br>Ireland     | <a href="http://hrhforum2017.ie/">http://hrhforum2017.ie/</a>   |



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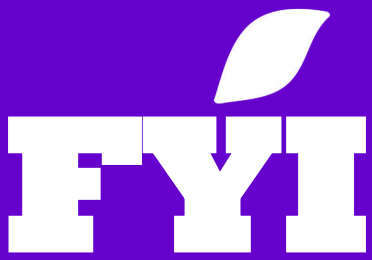


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## GLOBAL WARMING SCENARIOS WHEN TEMPERATURES RISE 1 TO 6 DEGREES CELSIUS

# 1 DEGREE



Extreme summers  
usher in Saharan-  
intensity heat  
waves.



Hundreds of  
thousands of  
people perish  
from heat stress.

Dire consequences await our home planet when global warming raises temperatures between one to six degrees Celsius. These are the projections and possible scenarios:

- Zero chance of avoiding one degree of global warming
- 93% chance of avoiding two degrees of global warming if greenhouse gas emissions are reduced by 60% over the next decade
- Poor chance of avoiding three degrees of global warming if rise breaches two degrees and triggers carbon cycle feedback
- Poor chance of avoiding four degrees of global warming if rise reaches three degrees and causes massive thaw of the permafrost
- Negligible chance of avoiding five degrees of global warming if rise reaches four degrees and releases trapped methane into the atmosphere

[Read More on Futurism](#)



## FRACKING SEEMS TO POISON GROUNDWATER WITHIN ONE KILOMETER



For almost a decade, residents of some Pennsylvania counties have complained that the natural gas prospectors nearby have contaminated their water. Locals say that after the fracking for gas began, the water made them sick, that it turned brown, even that it became flammable.

The industry fought back. Nevertheless, in 2016 the Agency for Toxic Substances and Disease Registry, part of the U.S. Department of Health and Human Services, found related heavy metals and chemicals in quantities high enough to pose health risks. And in December 2016, the Environmental Protection Agency concluded that there is indeed a connection between prospecting for shale gas and contaminated groundwater.

Fracking, when water, chemicals and sand are pumped at high pressure into the earth to shatter layers of shale rock, forcing them to release natural gas and oil, has helped remake the global energy market, lowering prices and turning the United States into a net oil exporter. Pennsylvania has been one of the largest beneficiaries. But there has been little research on the distance gas drillers should keep from sources of drinking water. A new paper addresses this research gap. It is also relevant to people living in urban areas, as gas drillers perfect horizontal drilling techniques — boring down and over to reach deposits, allowing them to operate in more densely populated areas.

Elaine Hill of the University of Rochester School of Medicine and Lala Ma, an economist at the University of Kentucky, look for a systematic connection between shale gas development and water quality in Pennsylvania. They pull together data on the quality of public drinking water measured at various distances from new gas wells. Drillers often open a number of new wells at the same time. The researchers describe new wells located within one acre of each other as “well pads” and then compare the earliest date of drilling for each well pad to drinking water samples collected for the Environmental Protection Agency. They ended up looking at 54,809 water samples taken over five years, all within 10 kilometers of one well pad. Controlling for temperature and rainfall around the locations where water is sampled, water-intake locations (where water enters the drinking supply), for time of day when the sample was collected, and for the laboratory where the sample was analyzed, Hill and Ma look for traces of chemicals linked to the fracking process.

[Read More on Journalist's Resource](#)





## DATA SCIENCE CAN HELP US FIGHT HUMAN TRAFFICKING



July 30 marked the United Nations' World Day Against Trafficking in Persons, a day focused on ending the criminal exploitation of children, women and men for forced labor or sex work. Between 27 and 45.8 million individuals worldwide are trapped in some form of modern-day slavery. The victims are forced into slavery as sex workers, beggars and child soldiers, or as domestic workers, factory workers and laborers in manufacturing, construction, mining, commercial fishing and other industries. Human trafficking occurs in every country in the world, including the U.S. It's a hugely profitable industry, generating an estimated US\$150 billion annually in illegal profits per year. In fact, it's one of the largest sources of profit for global organized crime, second only to illicit drugs.

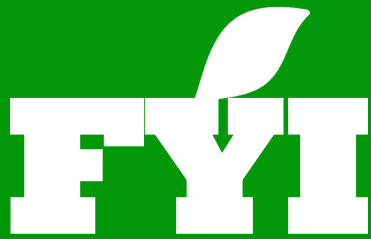
Analytics, the mathematical search for insights in data, could help law enforcement combat human trafficking. Human trafficking is essentially a supply chain in which the "supply" (human victims) moves through a network to meet "demand" (for cheap, vulnerable and illegal labor). Traffickers leave a data trail, however faint or broken, despite their efforts to operate off the grid and in the shadows. There is an opportunity, albeit a challenging one, to use the bits of information we can get on the distribution of victims, traffickers, buyers and exploiters, and disrupt the supply chain wherever and however we can. A recent study details how this might work.

A government, for example, may need to decide how best to fund or schedule labor inspectors to detect child labor in the manufacturing industry. An organization with limited resources may need insight into which prevention program to run, or what type of awareness campaign to implement. Data can be used to identify populations most at-risk and target prevention campaigns to those populations. Risk factors for being drawn into trafficking include poverty, unemployment, migration and escape from political conflict or war.

[Read the Full Essay on Scientific American](#)

[See Also: Human Trafficking: It's Much Closer Than You Think on BANGKOK POST](#)





## SHOCK AND SADNESS AFTER DOZENS OF CHILDREN DIE IN INDIAN HOSPITAL



State officials in New Delhi, India have suspended the director of a hospital where an estimated 60 children have died, including several young patients who died as oxygen supplies ran out after a billing dispute with a supplier.

Officials in the northern Indian state of Uttar Pradesh have suspended Rajeev Misra, the head of the government-run Baba Raghav Das Medical College hospital in Gorakhpur, where at least 30 children died after its supply of liquid oxygen was disrupted over an unpaid bill. A Home Ministry spokesman told the Press Trust of India, citing police reports, that 21 of the deaths were directly linked to a shortage of oxygen.

“We saw children dying around us,” said the father of one victim, who gave his name only as Vijay. “Obviously, it’s the hospital’s fault. So many children have died because of them. My son was fine until nighttime, then something wrong happened.”

The state’s health minister and hospital officials have denied charges that the deaths were caused by the oxygen bill dispute, and the state’s chief minister, Yogi Adityanath, blamed unsanitary conditions and the spread of the mosquito-borne disease encephalitis, which afflicts many children in India during the monsoon season. Adityanath told reporters at a hospital visit Sunday that the investigation was ongoing. “We will know whether it was because of an oxygen shortage or due to a lack of proper treatment,” he said. “Those found guilty will not be spared.” Parents of the victims described feelings of anger and bewilderment over the incident, saying they were struggling with guilt over not being able to save their children.

The deaths provoked widespread outrage and condemnation across the political spectrum and on social media, where a political cartoon spread that showed the babies as little angels hovering in the sky as an Indian government official tries without success to reach them.

[Read More on The Washington Post](#)



## THE INCREDIBLE EDIBLE GARDEN MOVEMENT, WITH SALARIED STAFF



Plans for “sustainable cities” often miss out a key element of human habitation, food, which is a major source of greenhouse gas emissions. But there is an increasing number of urban projects globally, run by volunteers and sometimes such as in Germany, funded by local government, that are helping to rectify this problem.

According to Gunhild Stordalen, an amazing woman from the EAT Forum in Sweden, food is the main issue around which coalesces all the other threats: climate change (food growing alone is responsible for 24 per cent of global greenhouse gas emissions), poor health, social inequality, soil loss, and biodiversity loss. “Food is the biggest driver of climate change. As two billion more people will be added to the planet this century and more people become affluent, more will eat meat and there is no scientific consensus on solving these interconnected problems. We need action to change this and to end the disconnect between consumption and production.”

It was started by geocologist Lutz Kosack, who works in the city planning office on urban land conservation measures, and the horticulture engineer Heike Boomgaarden, who developed what Kosack calls a “sustainable building kit system for municipal green space planning, whereby ecological, economic and social aspects were integrated into an overall concept”. Agriculture was transplanted literally into urban green space to make healthy food produce accessible to everyone, harvested by the citizens, free of charge. Fruit and vegetable beds were planted around the castle ruins in the centre of town, with the motto: “picking allowed” instead of “entering forbidden.” Meeting with great success, the idea subsequently expanded into a 14-hectare periurban permaculture facility and a wide range of activities, to make public green spaces more creative and to promote urban biodiversity despite “a difficult budgetary situation.”

There are many spin-off benefits: the green spaces and projects create meeting places, people are healthier and brownfields are transformed into bee pastures. The long-term unemployed are supported to take part, to gain skills and qualifications. The permaculture holding offers employment, including to refugees, generates revenues from sales of meat, and creates a market for regional products.

[Read More on The Fifth Estate](#)





# UNDERSTANDING THE PEER REVIEW AND PUBLICATION PROCESS



Publishing is an important part of sharing the outcomes of research, but the publication process and requirements may sometimes feel like a closed book. Health Systems Global (HSG) and BioMed Central, publisher of *BioMed Central (BMC) Health Services Research* which is affiliated with HSG, have partnered to deliver a series of five webinars to open up the peer review and publication processes. Aimed at researchers at a variety of career stages, the series covered: how to prepare an article and choose the right journal, what happens during peer review, publishing models and open access, research and publication ethics and how to be a peer reviewer.

This series now finished, but you can find out more information on the full series of webinars below, including the recordings and slides of all of the webinars.

[Watch the Webinars on Health Systems Global](#)

**Last Glimpse of the Largest Animal Ever**  
**The Endangered Great Blue Whale**  
**St. Lawrence River Estuary**  
**Near Tadoussac, Quebec**  
**August 18, 2017**



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