WN *Update*

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WN *Biocides*

Pesticide toxicity crisis in Brazil and worldwide

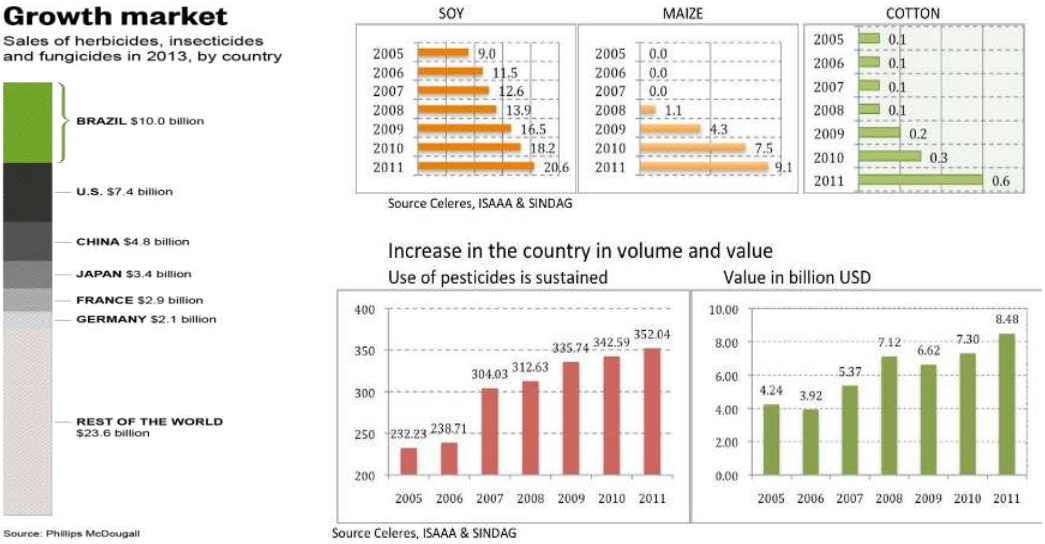


Corporations profit from pesticides, essential for intensive industrial agriculture. But there is a heavy social, health and environmental price to pay. The crisis is acute in Brazil, now the world's #1 user

Access February 2015 Arch Arg Pediat Bernardi et al pesticides as neurotoxins here
Access March 2015 International Agency for Research on Cancer on glyphosate here
Access March 2015 New York Times Ian Pollock on IARC and glyphosate here
Access April 2015 Reuters. Paulo Prada Brazil as world's biggest pesticide user here
Access this issue Feedback Hetty Einzig on Monsanto here

Brazil. Isabela Sattamini reports:

Biocides include herbicides, insecticides and pesticides. They are toxic. The danger to workers and consumers increases with the level of exposure. Leading organisations in Brazil and Argentina are now campaigning against pesticides. Acute intoxication suffered by farm workers and also ill-effects of chronic exposure are agitating public health researchers and activists, and in civil society as a whole. In April, the Brazilian National Cancer Institute (INCA) published a report on pesticides, focusing on them as causes of cancer. Argentinian researchers have identified genetic damage which can lead to cancer, in children exposed to pesticide spray in a soya producing region.



Above (left) shows the gross tonnage of pesticides used in Brazil. Sales at $US 10 billion a year are the highest in the world, well above the US and China. Pesticides are used systematically on genetically modified soya, corn (maize), and cotton, often sold as a deal with the pesticides. Overall use has increased by 50 per cent in 7 years (charts, right) and value to manufacturers has doubled

The position taken by INCA, a federal government agency, highlights the seriousness of pesticide overuse and abuse. Brazil authorises the use of substances forbidden in other countries, and is permissive with spraying, which spreads the poisons in water, soil and the environment. In Brazil the pesticide industry is also given tax breaks and financial incentives. Brazil *reached the number 1 position* as the world's with most use of pesticides in 2009. This is driven by use of genetic modified seeds, such as soya, maize (corn) and cotton (as shown above). Defenders of pesticides claim that genetically modified crops are free from pesticides. This is not so. While the issues of pesticides and of genetically modified organisms are technically different, in practice they are two sides of the same coin – intensive industrial agriculture.

The report published by INCA is welcomed and supported in Brazil by health professional and civil society organisations, and farm workers' and other social movements, and the fight against pesticides as now used is supported by independent media *in the UK, and the US* and *internationally,* .

Box 1

Go on enjoying fresh foods

Much consumer concern about pesticides is fcused on residues in fresh vegetables and fruits. But residues of various biocides and other toxic chemicals are found in grains, meat and milk, as well as on processed food products and ultra-processed products. Research should now focus on measuring and evaluating pesticides residues in processed food products and ultraprocessed products. The correct position is to fight for restriction and limitation and sometimes banning of the use of pesticides in general. In turn this means a return to sustainable methods of agriculture that require less or no pesticides. Consumers who are most concerned should consider choosing organic, biodynamic or other foods produced with little or no biocides.



A Brazilian farmer pours out pesticides that he will use on his crops. The risks to health include reproductive disorders, birth defects, cancer, failure of various vital organs, and ianability to work

It has displeased the manufacturers and the agricultural and other industries dependent on its use, who claim the 'safety' and 'well controlled and regulated' use of these toxic substances. The INCA report coincided with publication of a *report on organophosphate pesticides* by the World Health Organization's International Agency for Research on Cancer (IARC). This classifies the herbicide glyphosate, mostly used as the Monsanto product *Roundup*, as 'probably carcinogenic' in humans. In 2011 650,000 tonnes were used worldwide, accounting for 10% of Monsanto's profits.

Argentina is one of the biggest cultivators of genetically modified soybeans. There, the Physicians' Network of Sprayed Towns has been *mapping cancer incidence since 2010*. Co-ordinator Medardo Ávila-Vázquez, a paediatrician at the National University of Córdoba, in *February published a report* estimating that 30 per cent of deaths in the most intensive agricultural areas of the country are from cancer, compared to a national average of 20 per cent. He points that cancer death rates had increased since 2000. 'Significantly, the date coincides with the expansion in the use of glyphosate and other agrochemicals massively applied in those areas'. Studies of Brazilian farmers have also presented higher rates of cancer incidence and mortality.

So what next?

Agribusiness says pesticides are important in ensuring productivity needed to feed the growing world population. But agro-ecological farms can be and are as or more productive than industrial agriculture. In Brazil, the agro-ecology movement ensures farmers autonomy and health, as well as producing healthier and safer food. Some countries and cities have already banned glyphosate. In Brazil, more and more city authorities, including of the country's biggest city São Paulo, are buying only organic food for school meals. What path will the federal, state and municipal governments, along with civil society movements, take to confront the pesticide corporations?

*Isabela Sattamini. Pesticide toxicity crisis in Brazil and worldwide. [Biocides] [Update]. World Nutrition June 2015, **6**, 6, 452-454*



WN *Microbes*

Gut microbial biodiversity in Amazonia

Access April 2013 Michael Pollan, Jeff Leach on gut microbiota here



A Yanomami child, living in the reserved area of southern Venezuela and north-western Brazil. Gut microbial ecology of pre-industrial people is very different from that of populations that eat ultra-processed food products and regularly ingest and are exposed to antibiotics and other biocides. The vast implications for vulnerability to diseases especially of the gut are now starting to be grasped

Michael Purdy writes:

Scientists have found antibiotic resistance genes in the bacterial flora of a South American native community that never before had been exposed to antibiotic drugs. The findings suggest that bacteria in the human body have had the ability to resist antibiotics since long before such drugs were ever used to treat disease.

The research stems from the 2009 discovery of a tribe of Yanomami Amerindians in a remote mountainous area in southern Venezuela. Largely because the tribe had been isolated from other societies for more than 11,000 years, *[ed – but see Box 1 below]* its members were found to have among the most diverse populations of bacteria recorded in humans. Within that plethora of bacterial populations though, the researchers have identified species wired to resist antibiotics.

The study, *published in April in Science Advances*, reports that the microbial populations on the skin and in the mouths and intestines of the Yanomami people were much more diverse than those found in people from the United States and Europe. 'This was an ideal opportunity to study how the connections between microbes and humans evolve when free of modern society's influences,' says Gautam Dantas of Washington State University, one of the study's authors. 'Such influences include international travel and exposure to antibiotics.'



A Yanomami man. The study outlined here assumes that the Yanomami have lived in the same remote uplands for 10,000 years with no outside contacts. This is speculative and unlikely. Most free-living Latin American populations are descended from peoples driven inland by European invaders, and Amazonian communities are constantly harassed by rubber-tappers and prospectors

Study team member Erica Pehrsson searched for and found antibiotic resistance genes in bacteria on the skin and in the mouths and intestines of the Yanomami, long isolated from such outside influences. She says:

> These people had no exposure to modern antibiotics. Their only intake of antimicrobials could be through the ingestion of soil bacteria that make naturally occurring versions of these drugs. Yet we were able to identify several genes in bacteria from their fecal and oral samples that deactivate natural, semi-synthetic and synthetic drugs.

Thousands of years before people began using antibiotics to fight infections, soil bacteria began producing natural antibiotics to kill competitors. Similarly, microbes evolved defences to protect themselves from the antibiotics their bacterial competitors would make, likely by acquiring resistance genes from the producers themselves through a process known as horizontal gene transfer.

Overuse and abuse of antibiotics in medicine and agriculture has accelerated this process, stimulating the development and spread of genes that help bacteria survive exposure to antibiotics. Consequently, strains of human disease that are much harder to treat have emerged. 'We have already run out of drugs to treat some types of multidrug-resistant infections, many of which can be lethal, raising the bleak prospect of a post-antibiotic era' says Guatam Dantas.

Gut microbial diversity

The microbiomes of people in industrialised countries are about 40 percent less diverse than those of the Yanomami. Maria Dominguez-Bello, senior author of the study, says:

> Our results bolster a growing body of data suggesting a link between decreased bacterial diversity, industrialised diets and modern antibiotics, and immunological and metabolic diseases, such as obesity, asthma, allergies and diabetes, which have dramatically increased since the 1970s. There is something occurring in the environment in the past 30 years that has been driving these diseases, and we think the microbiome could be involved.

The research suggests a link between modern antibiotics, diets in industrialised parts of the world, and a greatly reduced diversity in the human microbiome – the populationa of bacteria that live in and on the body and that are increasingly being recognised as vital to good health.

Almost all human microbiome studies have focused on Western populations. Access to people unexposed to antibiotics and processed diets may shed light on how the human microbiome has changed in response to modern culture. In the Yanomami study, when the researchers exposed cultured bacterial species from the tribe to 23 different antibiotics, the drugs were able to kill all of the bacteria.

Box 1

Antibiotic resistance

Geoffrey Cannon comments: The study summarised here implies that a large number of diseases and disorders especially of the gut are consequences of urbanisation and industrialisation, and that populations living in nature are naturally protected.

Michael Pollan, with Jeff Leach, contributed a *commentary to WN in June 2013* which shows that there are systematic differences between the gut microbial ecology of people living in industrialised countries and settings, and pre-industrial populations. The dominant bacterial species in industrialised guts increase vulnerability to infections and other diseases, whereas dominant species in the guts of people who live close to nature are resistant to disease. Michael Pollan, who cultivates his garden, has gut biota like those of African peasants. The Yanomami study is an excellent addition to a substantial literature, whose vast implications for human disease, health and well-being are not yet fully comprehended.

The Yanomami are not alone

The meticulous study described here found bacterial species in the guts of the Yanomami people examined that were resistant to drugs. As said in Michael Purdy's story, they saw this as very remarkable, on the assumption that the community they studied and their ancestors had lived with no contact from outsiders for over 10,000 years. This assumption is unlikely. Most populations native to what is now Latin America that live in remote areas are descended from peoples who were driven inland by the invading Europeans – but of course long before the antibiotic era. Native populations living in reserved areas have usually been pushed into contact with other populations who regularly contact or live among people of European descent. More significant, remote Indian communities are constantly invaded and harassed by prospectors, tree fellers, bandits and other groups of whites who have used antibacterial and other drugs. So the conclusion in this important study that the drug resistant bacteria in the guts of the Yanomami are wholly endogenous, is not proved for sure. Bugs know few boundaries.

Purdy M. Gut microbial diversity in Amazonia. [Microbes] [Update]. World Nutrition June 2015, ***6,*** *6,455-457*



WN *Big Food Watch. Expo Milan 2015*

Burning public money





Graphic mascot for the six months-long Expo Milan 2015 (above) and riots against Expo as corporate orgy (below). Both seem removed from the Expo motto 'Feeding the Planet, energy for life'

The Big Food Watch team reports:

The six-month long Expo Milan food fair opened on 1 May. Cheer-led by Italian prime minister Matteo Renzi, it plans to attract 20 million visitors and gain $US 10 billion in income, against expenditure so far of $US 15 billion. What is it, and who and what is it for? Pope Francis spoke by way of a televised link-up to the opening ceremony. He referred to the irony of a global mega-spectacle dependent on corporate sponsorship deals being apparently devoted to sustainable development and feeding the poor. He said: 'In certain ways, the Expo itself is part of this paradox of abundance. It obeys the culture of waste and does not contribute to a model of equitable and sustainable development'. The real protagonists of the event should be 'the men and women who are hungry, who fall ill and even die because of an insufficient or harmful diet'. The Vatican pavilion at Expo, themed 'not by bread alone' features fasting. The others typically focus on feasting, in the context of temporary architectural and design extravaganza. Expo has been called by some, Disney World for foodies.

Reasons for demonstrations

Others have been less polite. Pope Francis in effect explained the demonstrations taking place at the same time, with tens of thousands of students, anti-privatisation activists and environmentalists on the streets with 'No Expo' banners. 'Our generation does not want this corporate bullshit' a street activist told a news agency reporter. The protestors point out that Expo has relied on volunteer workers and yet is promoting and being promoted by corporations such as Coca-Cola and Pepsi-Co. Much public money spent on Expo which is needed in Italy for education, health care and child welfare, has been lost to corruption.

Box 1

'A machine for burning public money'

Extracted from a report in The Guardian of 12 May by Oliver Wainwright. As Expo Milan opened on May Day, thousands took to the streets to protest. Violent splinter groups smashed shopfronts and torched cars. 'Expo is a machine for burning public money', said one protester. 'It promised to bring jobs and boost the economy, but has wasted billions on pointless infrastructure.' Said another: 'It claims to be a celebration of slow food, local agriculture and healthy eating. Its official motto is *Feeding the Planet, Energy for Life*, but it's sponsored by corporate giants. The whole thing is beyond a joke.'

Expo 2015 has been plagued by escalating budgets, and has seen total expenditure balloon to around € 13bn, (roughly $US 15 billon) including the costs of building new transport infrastructure to service the site, 10 miles from the centre of town. It has suffered interminable construction delays, meaning € 1million has had to be spent on building camouflage structures to hide the unfinished pavilions for the opening. And, while being touted as a model of a cleaner, post-Berlusconi Italy, it has been damned by charges of corruption and bribery, seeing seven senior managers and former members of parliament arrested last year, and more indicted for bid rigging.

A € 224 million concrete slab

So what does the city have to show for its seven-year struggle? Visitors roam like herds of lobotomised oxen in search of nourishment. Most countries' exhibitions feel like a cross between a globalised supermarket advertisement and travel agents' propaganda – multimedia dioramas of bountiful produce and spectacular scenery, dotted with stalls selling craft trinkets and samples of cheese. It is a spectacular mess, but it's also fascinating to see national ambitions embodied, side by side, in a line-up of skin-deep architectural flourishes.

What will be left, and at what cost did it all come? Before the Expo arrived, this site was a place of overgrown, formerly agricultural land. The intention was to leave it in such a way that development could happen in a productive landscape, creating a new kind of high-density garden city once the tents were taken down. Such a bucolic idea was soon abandoned. For ease of development, the entire site has been covered with an enormous concrete foundation slab – at a cost of € 224 million, mysteriously up € 60 million from the original tender price.

Some 164 years on from the first such extravaganza, London's Great Exhibition of 1851, it seems clearer than ever that the format of the world exposition is well past its expiry date, leaving a trail of debt and destruction wherever it strikes.

The US pavilion



The Expo Milan US pavilion. The man shown is US celebrity chef James Beard (1903-1985), whose foundation, and the US State Department, and giant corporations, sponsored the pavilion

Taken and updated from the official Expo Milan website. The US pavilion, whose theme is 'American Food 2.0: United to Feed the Planet', marks a new magnet for conversation and collaboration to confront global food challenges. US Secretary of State John Kerry welcomes the initiative: 'As a global leader in advancing food security'. US Ambassador to Italy John Phillips says:

> American farmers produce one fourth of the world's food, but in order to supply the planet's growing population, we will need to increase global food production by 70% by 2050. Thanks to technology, innovation and entrepreneurship, America now produces more food - more consistently and more safely - and delivers it to more people at a more affordable price than ever before in history.

Public-private partnership

Featuring a fully-functioning vertical farm, the pavilion celebrates America's rich agricultural history and innovation-driven success with interactive exhibits and tastings to salons, workshops and innovation accelerators, created by contributions from private donors and partners. John Phillips again:

> We rely on public-private partnerships to manage the American participation here. I am proud of this approach. We are grateful to the companies who have made generous contributions towards the success of this Pavilion.

The pavilion is a collaboration between the James Beard Foundation and the American Chamber of Commerce in Italy. Sponsors include the US State Department, the American Chamber of Commerce, General Electric, DuPont, 3M, the International Culinary Center, the James Beard Foundation, McKinsey & Company, Microsoft and Fleischman-Hillard, and Pepsi-Co, Sweet Street Desserts, Giraudi Meats, Ocean Spray (smoothies), US Dairy Export Council, the US Poultry and Egg Export Council, and the US Rice Federation.

The Coca-Cola pavilion



The Coca-Cola implied pledges of Promotion of Well-Being, Protecting the Environment and Building Stronger Communities, is as audacious as the Expo Milan theme of Feeding The Planet, Energy for Life

Taken and updated from the official Expo Milan website.

Muhtar Kent, Chairman and Chief Executive Officer of The Coca-Cola Company**,** says:

> The scope and scale of today's global challenges require a model of cooperation based on what we call the golden triangle - the meeting point between institutions, private enterprises and civil society. That's why we are proud to be part of the Expo. It's an excellent opportunity to share possible solutions to the global challenges of food and environmental sustainability.

The Coca-Cola pavilion built celebrates the company's tradition, now based on the promotion of well-being, protecting the environment, and building stronger communities. The building, 12 meters high and 1000 square meters of surface area, is made of wood and glass, and water will create an iconic space

The outer walls recreate the Coca-Cola logo and the Contour silhouette of the historic glass Coca-Cola bottle, which will celebrate its 100th anniversary in 2015. The roof will be covered with plants suited to the climate in Milan, being maintenance-free and require limited irrigation, plus it will reduce overheating in the interior spaces and decrease the energy required for cooling. Visitors to the pavilion will be led along an interactive journey where they participate in the discovery of the Coca-Cola world, learning about the company's values in three different sections:

- Local presence. The Company is a global business that operates on a local scale, in every community where it does business. The Coca-Cola value chain supports the economies of the local communities. enabling also the economic empowerment of women.
- Energy balance . Coca-Cola's efforts to enhance personal well-being, offering low or no-calories beverage options in every market, providing transparent nutrition information, and helping get people moving by supporting physical activity programs.
- Ptotecting the environment - to raise awareness about the company's commitment to reducing the impact that its products have on climate change; from improving energy efficiency, to reducing the consumption of water, as well as recycling and treatment.

Box 2
Vandana Shiva on Expo Milan

Vandana Shiva, together with Amarta Sen and Jeremy Rifkin, is one of the 80 or so 'ambassadors' for Expo Milan, as posted on its website. Most are Italian, and the great majority are designers and architects, gastronomes and celebrity chefs, star athletes and models, and entrepreneurs. Interviewed last year for the site, she tactfully said, after the Expo Milan intrdoduction below:

She has campaigned for decades on issue like intellectual property rights, biodiversity, biotechnology, bioethics and genetic engineering. Known to the general public for her battles against the introduction of genetically modified organisms in India and globally, she is fighting to change the paradigms that govern today's agriculture and nutrition. In 1982 she founded the Research Foundation for Science, Technology and Natural Resource Policy, a research institute which she directs. She is one of the main leaders of the International Forum on Globalization.

Critical of the new models of exploitation of globalisation applied to the territory which alter the balance of the vital cycles of nature, she works to ensure that the vision of the West, which praises progress by measuring everything in terms of profit, does not cause the peasant communities of the third world to disappear permanently. In 1993 she received the Right Livelihood Award. She is vice-president of the Slow Food Movement. She says

The food system must be transformed

> We are going through a period of crisis that is intense and general. The choice of the theme *Feeding the Planet, Energy for Life* can be said to be visionary. It addresses key issues for the future of humanity. From North to South of the world, we need better food, more sustainable production, more attention to quality. Agriculture must not be reduced to monocultures, industrialisation and toxic chemicals. We must protect plants and biodiversity, create healthy and livable environments, and all feed ourselves in a more balanced way.
>
> The UN Food and Agriculture Organization has asked me to draw up a report on women in agriculture. I myself was surprised to discover that the majority of farmers in the world are women; the majority of farmers in India are women, and so in Africa, and even in the United States of America. Agriculture is a huge growth industry. There are many people returning to the land, choosing to dedicate themselves to cultivating crops, especially women. Then if we talk about transformation processes of food, even here women play a huge role in the whole food chain, not to mention the daily activity of going food shopping and cooking ... In fact, the food system is in the hands of women, and yet they are, on the whole, invisible. So my dream is that Expo Milan 2015 will focus on women and the search for solutions to the food crisis.
>
> I have wonderful memories of my grandmother, for whom cooking was a real joy. She would never have just said '"It's ready'. She'd say, 'Look at the *pacora*: it's singing! Look at the *chappati*: it's smiling.' She saw food as human, and I remember she cooked better than anyone else in the area! If we allowed space for the knowledge and wisdom of our grandmothers, many problems related to food would not exist.

The Big Food Warch team. Burning public money. Expo Milan 2015. [Big Food Watch] [Update]. World Nutrition June 2015, ***6,*** *6, 458-462*



WN Nourishment
GLiMMER™ glitter

Access June 2014 Update on Bill Clinton and Mark Hyman here
Access January-February 2015 Update David Katz on obesity here
Access January 2015 Greatist US Top 100 in health and fitness here



David Katz of Yale and Dan 'Blue Zone' Buettner (top), have brought together in GLiMMER™ 140 shakers and movers in public health and nutrition, including (in the next row) Barry Popkin, Walter Willett, Claus Leitzmann, Boyd Swinburn, Shiriki Kumanyika, Yoni Freedhoff, (then) Dean Ornish (with friend), Ilona Kickbusch, Deepak Chopra, Joel Fuhrman, Michele Simon, (then) Neal Bernard, David Satcher, Andrew Weil, Mehmet Oz, and Mark Hyman (with friend)

The Update team reports: Here (at top) are the two convenors and some of the 'council of directors' of what looks like the most auspicious coalition of personal and public health and nutrition shakers and movers ever formed in the US. *This is GLiMMER™,* created by David Katz of Yale, whose commentary on obesity was

published in WN, January-February issue, and Dan Buettner, author of *The Blue Zones.* The coalition is explained in the pledge in Box 1 below.

WN editorial family members and contributors feature among the GLiMMER™ council of directors. Six are in the top row of pictures above – Barry Popkin, Walter Willett, Claus Leitzmann (whose letter on our *Project Phoenix* is published this month), Boyd Swinburn, Shiriki Kumanyika, and Yoni Freedhoff.

A grand coalition

The 142-member council of directors is devised as the all-star A team. Of these 10 are above. *In the 2015 Greatist list* of the 100 most media-savvy influential US people in health and fitness, David Katz ranks #21 (see the 'G! on his picture above). These are Dean Ornish (Greatist #31, of the very low fat diet regimes, with naturopath Soram Khalsa), Ilona Kickbusch (whose call to public health action is in the *WN* March editorial), Deepak Chopra (#3, wellness guru), Michele Simon (her demolition of *Big Food* penetration of the nutrition profession is in *WN* October 2013), and Joel Fuhrman (#36, champion of radical fasting). Then Neal Bernard (anti-animal food advocate), David Satcher (former US surgeon-general), Andrew Weil (#15, wellness guru), Mehmet Oz (#2, superstar TV host), and Mark Hyman (#20, mastermind of Bill Clinton's slim-line). Others include Jennie Brand-Miller, Colin Campbell, Loren Cordain, Hans Diehl, Michael Jacobson, David Kessler, Dariush Mozaffarian, Joan Sabaté, Antonia Trichopoulou, and Derek Yach. Most have pull – *Huffpost* columnist, *TED* speaker, vast number social media followers, best-selling author, diet doctor to celebrities, regular contributor to high-impact journals, and so on.

Box 1

The GLiMMER™ 'True Health Coalition' pledge

These are the key points on the GLiMMER site that visitors are invited to sign up to:

The healthiest, longest-lived populations around the world (for example, The Blue Zones®) do not fixate on any particular theory, fad, book, food, nutrient, or ingredient, but rather practice the fundamentals of a health-promoting lifestyle. These practices include

- *A diet comprised mostly of minimally processed, generally plant-predominant foods in time-honored, balanced combinations (for example, traditional diets of certain Mediterranean populations, certain Asian populations)*
- *Routine physical activity at moderate intensity, frequency, and duration*
- *The avoidance of toxins, particularly tobacco and excess alcohol*
- *Sleep adequate in both quantity and quality*
- *The effective mitigation of psychological stress*
- *The cultivation of meaningful, supportive relationships and strong social bonds*

The above practices offer enormous potential benefits to the health of people and planet alike when contrasted to lifestyle and dietary practices that now prevail in modern and modernizing countries. The health benefits of this lifestyle and dietary pattern are clearly and consistently supported by an exceptionally strong body of evidence, and represent a global consensus among experts.

David Katz is a distinguished media-friendly senior university professor whose views on food, nutrition and health are like those of the *WN Food System* project, except he avoids the concept of ultra-processing. Dan Buettner is a journalist associated with *National Geographic*, the latest in a line of believers that it can be normal for humans to die in good health of old age when 100 or older. In the prospectus David Katz says:

> More than 120 of the world's leading experts representing 16 countries have united… to help demonstrate that… there is in fact overwhelming agreement among diverse experts worldwide about the theme of healthful eating and living. A basic goal of the initiative is to convey this consensus to the public and to replace the competing claims, changing views, and fad diets that now seem to prevail with reliable, actionable understanding. Other objectives include global reforms… related to lifestyle medicine; and support for efforts to foster health-promoting culture change, such as the Blue Zones Project®.

In other words, the alliance is between two successful health and wellness entrepreneurs, one 'in the box' and one 'out of the box', who evidently have decided that partnership between them will be synergistic, more powerful than working in parallel. Their initiative is amplified by the coalition they have created between many leaders of two up-to-now opposing armies. These are of insiders such as eminent researchers, professional organisation presidents, members of official committees, and former senior US government officials; and of outsiders such as naturopaths, homeopaths, advocates of palaeo-diets or fasting or Eastern philosophies of life, and New Age gurus. Will the coalition become an alliance, collectively more influential than any US official expert panel? The initiative is yet another sign that the more than half-century old official consensus nostrums about food, nutrition and personal and public health are being blown away, at least in the US.

More for those that have

This is not to say that all the prospects are now rosy. Of the 17 people shown above, 14 are from the US, as are well over three-quarters of the council, all of whom are from or work in high-income countries. 'Representing 16 countries' is a big stretch, as is claiming 'overwhelming agreement among diverse experts worldwide' on what are healthy diets. GLiMMER is aimed at resourced people able to look after themselves who spend money in the US, and elsewhere who emulate the US, as are the books, blogs, tours, clubs and so on created by the most energetic council members. There is so far no indication of attention being paid to the underlying and basic, social and environmental drivers of disability, disease and general ill-health. *WN* contributor Shiriki Kumanyika, current president of the American Public Health Association, told us that GLiMMER should include poverty and inequity in its work:

> I think those of us who have signed up to GLiMMER should challenge ourselves to address the structural factors that work against the achievement of healthful ways of living, to make sure that GLiMMER does not inadvertently widen the gap between those who can readily achieve its health goals through their own resources and actions in spite of an environment to the contrary, versus those who cannot.

Box 2

The verdict so far

The Update team writes: How many of the large number of GLiMMER™ 'council of directors' will guide the central direction of the initiative, remains to be seen. Those contacted by *WN* gave an impression of being signed up without much real engagement, but that may change.

Good things include relatively integrated attitude, span of knowledge of the people engaged, and a relatively non-medical approach. If a concerted and coherent campaign advocating a more concrete vision than so far set out is mounted, this could alter US national policies and programmes. Less good things include downplay of social, economic and political causes of disease, health and well-being; and thus focus on individual and community choices, with little reference to duties of government and impact of industry. It is for people able personally to follow its advice. Relevance outside the US and high-income countries is not yet clear.

GLiMMER is not novel. It is a return to age-old beliefs and practices that are a hallmark of most developed civilisations. It sets aside the 'quick fix' ideology of single causes and single diseases characterising conventional medicine and nutrition, in favour of advice on the good life well led. This is the cardinal principle of the natural philosophy of dietetics, devised and developed from thousands of years ago in many different civilisations. Dietetics became obscure only as from the 19th century in Europe and then elsewhere, as a result of materialism and industrialisation. This debt to history should be fully acknowledged.

The language of the initiative is up-beat. But it is only privileged individuals and communities in higher-income and relatively tranquil settings who can by themselves recover and gain health. Most people in the world are not privileged and many endure troubles beyond their ability to resolve. The main focus so far still is on avoiding diseases caused by pathogenic ways of life, rather than well-being. Plus as usual in the US, the forces that are driving mass disorders and diseases and thwarting whole well-being, remain in the shadows. Nevertheless, GLiMMER™ so far is impressive.



WN *Nourishment*

This story carries a new *WN* 'brand image' for *'Nourishment'*. Our interest is in relationships between foods, meals, dietary patterns and food culture, and mental, emotional, and spiritual as well as physical health and well-being. The visual equivalents of 'diet' or 'nutrition' are graphs, or extracts from dietary guidelines like the now-discredited US 'pyramid', or indiscriminate pictures of foods, or images connected with dieting regimes. Very dull. We propose to pay more attention to delight and to be less preoccupied with disease. Thus, *Nourishment.* 'branded' with images of whole food. Each *Nourishment* story will use a different image, starting with fruits – here, a papaya, and at the beginning, a pineapple.

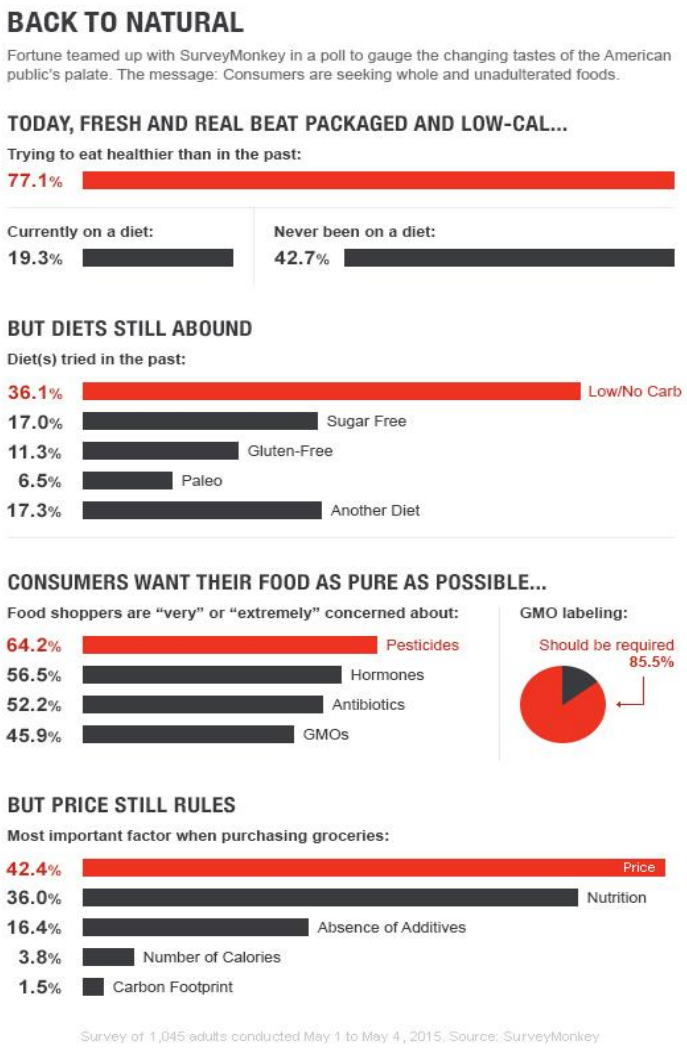
The Update team. Glimmer glitter. [Nourishment] [Update]. World Nutrition June 2015, ***6,*** *6, 463-466*



***WN** Big Food Watch*

US consumers tweak their junk food habits

Access April 2015 Update Tom Philpott on decline of junk food in US here
Access May 2015 Update on Jorge Paulo Lemann here



This graphic from Fortune magazine is meant to show a shift in the US away from ultra-processed products. But it is a change in the head, not in habits. As said, 'price still rules'. Sales of ultra-processed products in middle- and low-income countries continue to rocket.

The Big Food Watch team reports:

Stories from the trade and general media in the US continue to claim that *Big Food* is in crisis. One example was Tom Philpott's *Mother Jones* story (*Update*, April, access above). Another was a media blitz exclaiming on the drop in sales and profits of McDonald's. The latest is a long essay in the 1 June issue of *Fortune* magazine with the excited title 'The war on big food'.

The reformulation of jello

The essay includes striking quotes from the February Consumer Analyst Group of New York conference, the packaged-goods industry's premier annual gathering. Richard Smucker of Smucker's jellies said 'We look at our business and say, "How can we remake ourselves?' ". An executive from ConAgra, which owns 29 food brands that each bring in $US 100 million in annual retail sales, complained to Credit Suisse analyst Robert Moskow that 'big' had become 'bad'. Another noted a mounting distrust of Big Food.

Denise Morrison of Campbell's Soups said 'We understand that increasing numbers of consumers are seeking authentic, genuine food experiences, and we know that they are sceptical of the ability of large, long-established food companies to deliver them'. Credit Suisse find that the top 25 US food and beverage corporations have lost an equivalent of $US 18 billion in market share since 2009. Robert Moskow said 'I would think of them like melting icebergs'. Shoppers still value convenience, he says, 'but they have more and more questions about why this bread lasts 25 days without going stale.'

Fortune says: 'For each of the past two years, according to Bernstein research, the annual volume of packaged food sold in the US has fallen more than 1%. While that dip may seem small, it's a portent of a much larger, even seismic, shift in the stuffing-our-gullets business… Traditional packaged-food companies, however, aren't taking the assault lightly… Kraft Foods, for instance, is removing synthetic colours and artificial preservatives from its flagship cheese. Tyson has announced it is eliminating the use of human antibiotics in its chickens raised for meat. General Mills has cut sugar by 25% in its Yoplait yogurt. All of these developments have happened in the past half year'.

Don't say 'processing'!

At Campbell's, Denise Morrison is encouraging a new way to talk about the corporation's products. 'Executives now even talk a bit differently, infusing a more wholesome-sounding vocabulary in day-to-day conversation. The company "cooks" and "preserves" rather than "processes" and "manufactures"; employees follow "recipes" not "formulas." ' Says *Fortune*, indicating that Campbell's are not in deep trouble, 'Operating margins of canned soups are greater than 20%, which is significantly fatter than margins for most other packaged-foods categories'.

But, continues the *Fortune* essay, 'Americans… are not willing to say goodbye to chocolate and candy, which have resisted the declines felt in other parts of the packaged-food industry. Confectioneries have held up in part because there was never any confusion over whether they're an indulgence. The world's collective sweet tooth propelled Hershey, with $7.4 billion in 2014 sales, to the No. 2 spot on Credit Suisse's list of the fastest-growing big US food and beverage companies of the past five years. Sales are up from $5.3 billion in 2009'.

Big Food is booming

Like other recent prominent stories, the *Fortune* essay is wrong. The sales and profits of some US-based Big Food corporations are not as colossal as once projected – in the US. Correspondingly, the sales of some brands positioned as making anything between $US 100 million and $US 1 billion or more are not growing as fast as projected – in the US. As a result, affected companies are reformulating some of their products, usually to make or imply health claims – which remain unhealthy. Also, the market presence of some corporate giants, McDonald's as an example, is being somewhat eroded both by established corporations, or new companies offering variations on the 'classic' product – which remain unhealthy.

At the same time, companies whose products are claimed with more or less genuine reason to be healthy, 'natural', 'pure', 'organic', 'diet', 'light', 'reduced', 'no additives' and so forth, are gaining more sales and profits, but collectively are a small, 'niche' market for more health-conscious consumers willing and able to pay considerably more and often a whole lot more money for the 'premium' products.

These changes are not great – even in the US. What they signal, as repeated in the trade press, is that the market for ultra-processed products, now amounting to more than 60 per cent of the US food supply, is saturated. There comes a point, maybe true also of rates of overweight and obesity, that levels do not rise. But neither the overall amount of ultra-processed products, or of obesity, is dropping – in the US.

This is not the case in middle- and low-income countries where currently ultra-processed products amount to perhaps half or less of the levels in the US – and the UK and other saturated countries. In Asia, Latin America and Africa, the Big Food business of transnational corporations is booming, with 'double-digit' – over 10 per cent – annual sales increases. This is where the new big money is, as long-established food systems and cultures, and local farming and food industries, are coca-colonised and burgerised. Warren Buffett knows what he is doing. His opinions and actions, recorded in *WN Update* in April, are summarised here in Box 1, below.

Box 1

The Buffett effect

If the junk-food era is drawing to a close, no one has bothered to inform gazillionaire investment mogul Warren Buffett. 'I'm one quarter Coca-Cola,' Buffett recently told *Fortune*'s Patricia Sellers. 'If I eat 2,700 calories a day, a quarter of that is Coca-Cola. I drink at least five 12-ounce servings. I do it every day.' In addition to *being* one quarter Coke, Buffett literally owns 9 per cent of Coca-Cola, through his conglomerate, Berkshire Hathaway. And the cagey old investor apparently knows what he's doing. Even though soft-drink sales have been declining for years, Coke's share price has nearly doubled since 2011, borne up by financial engineering tricks like share buy-backs.

The Big Food Watch team. US consumers tweak their junk food habits [Update]. World Nutrition June 2015, ***6,*** *6, 467-469*



WN *Hot stuff*
Philanthropic colonialism

Access May 2015 Anne-Emanuelle Birn on the Gates Foundation here
Access this issue Anne-Emanuelle Birn on the Gates Foundation here



Peter Buffett (centre) is the son of multi-billionaire and philanthrocapitalist Warren Buffett (left). Given a $US 1 billion to set up a foundation, he has fundamental doubts about the value of charity

Peter Buffett writes:

I am a musician. In 2006 my father Warren Buffett, made good on his commitment to give nearly all of his accumulated wealth back to society. In addition to making several large donations, he added generously to the three foundations that my parents had created years earlier, one for each of their children to run.

Early on in our philanthropic journey, my wife and I became aware of something I started to call Philanthropic Colonialism. I noticed that a donor had the urge to 'save the day' in some fashion. People (including me) who had very little knowledge of a particular place would think that they could solve a local problem. Whether it involved farming methods, education practices, job training or business development, over and over I would hear people discuss transplanting what worked in one setting directly into another with little regard for culture, geography or societal norms.

Unintended ill-effects

Often the results of our decisions had unintended consequences. Distributing condoms to stop the spread of AIDS in a brothel area ended up creating a higher price for unprotected sex. But now something even more damaging is going on.

Because of who my father is, I've been able to occupy some seats I never expected to sit in. Inside any important philanthropy meeting, you witness heads of state meeting with investment managers and corporate leaders. All are searching for answers with their right hand to problems that others in the room have created with their left.

There are plenty of statistics that tell us that inequality is continually rising. At the same time, according to the Urban Institute, the nonprofit sector has been steadily growing. Between 2001 and 2011, the number of nonprofits increased 25 percent. Their growth rate now exceeds that of both the business and government sectors. It's a massive business, with approximately $316 billion given away in 2012 in the US alone and more than 9.4 million employed.

Conscience laundering

As more lives and communities are destroyed by the system that creates vast amounts of wealth for the few, the more heroic it sounds to 'give back.' It's what I call 'conscience laundering' – feeling better about accumulating more than any one person could possibly need to live on by sprinkling a little around as an act of charity.

But this just keeps the existing structure of inequality in place. The rich sleep better at night, while others get just enough to keep the pot from boiling over. Nearly every time someone feels better by doing good, on the other side of the world (or street), someone else is further locked into a system that will not allow the true flourishing of his or her nature or the opportunity to live a joyful and fulfilled life.

And with more business-minded folks getting into the act, business principles are trumpeted as an important element to add to the philanthropic sector. I now hear people ask, 'what's the ROI?' when it comes to alleviating human suffering, as if return on investment were the only measure of success. Micro-lending and financial literacy (now I'm going to upset people who are wonderful folks and a few dear friends) — what is this really about? People will certainly learn how to integrate into our system of debt and repayment with interest. People will rise above making $2 a day to enter our world of goods and services so they can buy more. But doesn't all this just feed the beast? I'm really not calling for an end to capitalism; I'm calling for humanism.

Often I hear people say, 'if only they had what we have' (clean water, access to health products and free markets, better education, safer living conditions). Yes, these are all important. But no 'charitable' intervention can solve any of these issues. It can only kick the can down the road.

We have a crisis of imagination. Albert Einstein said that you cannot solve a problem with the same mind-set that created it. Money should be spent trying out concepts that shatter current structures and systems that have turned much of the world into one vast market. Is progress really Wi-Fi on every street corner? No. It's when no 13-year-old girl on the planet gets sold for sex. But as long as most folks are patting themselves on the back for charitable acts, we've got a perpetual poverty machine.

Edited from an article in the New York Times

Buffett P. Philanthrophic colonialism [Big Food Watch] [Update]. World Nutrition June 2015, ***6,*** *6, 470-471*

***WN** Development*

Visions for this century (7)

Access November 2014 Visions for this century (1) here
Access December 2014 Visions for this century (2) here
Access January-February 2015 Visions for this century (3) here
Access March 2015 Visions for this century (4) here
Access April 2015 Visions for this century (5) here
Access May 2015 Visions for this century (6) here

Brooke Aksnes writes:

In the last six issues, *WN* editorial family members write about the state of the world now, and their visions for the future. See above. We are now publishing Visions in our *Update* section, with comments as letters in our *Feedback* section

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Stefanie Vandevijvere



Growing your own food and enjoying it in great company is inspiring and empowering. This delicious beautiful salad is a memory from volunteering at Suderbyn permaculture ecovillage in Sweden.

What mainly determines population well-being, health, and disease?

Environments that make healthy choices easy, and also the preferred choices among all groups of the population. The obesity epidemic has increased in parallel with the globalisation of the food supply. Nutrient-poor, energy-dense, ultra-processed food

products are increasingly available, inexpensive and heavily promoted by transnational food companies. We need communities where people can take ownership of their own health and well-being and where they do not lose sovereignty over their foods and meals (and ultimately their health) to transnational corporations. We also need communities where people are able and keen to grow their own foods and make time to prepare and enjoy their meals together with family and friends.

What mainly determines good population nutritional status?

Diets of minimally processed foods, predominantly plants, are now known to promote health and prevent disease. This seems simple, but people very often fail to convert this evidence into what they routinely do. The corporate and political determinants of nutritional health need to be addressed much more effectively in this century.

How useful are the current nutritional sciences?

Nutritional sciences have been very useful in many different ways. But they need to focus more on generating real solutions in this century, and try to answer some of the 'how' rather than the 'what' questions, especially since what to do to improve global nutrition and reduce nutrition-related inequalities is now well-known.

Some questions that now need answers are as follows. How can global progress on reducing obesity and diet-related chronic diseases be accelerated? How can the gap between science and decision-making be best reduced? How can governments be stimulated to create environments that enable people of all socio-economic groups to enjoy optimal nutritional health? How can the impact of corporations on the health of populations be reduced? How can citizens, communities and populations, be mobilised for healthier food? How can they regain sovereignty over their foods and meals, their environments, their health and their lives?

Are enough governments and official agencies making real progress?

Progress has been made to reduce under-nutrition in a many countries. But progress on reducing obesity and diet-related chronic diseases has been very patchy. This remains so despite the high level agreement on what needs to be done, as summarised in a vast number of documents produced as part of and following the World Health Organization's *Global Strategy on Diet, Physical Activity and Health* in 2004. Many countries have plans for reducing obesity and chronic diseases, but few of those are making much difference. Soft policies, such as education and social marketing, are almost always preferred over hard policies, such as regulations and taxes. Implementation of hard policies is often difficult due to opposition by vested interests, government ideology, and a lack of strong civil society groups (mostly due to low resources and lack of concerted action). Examples of ways in civil society to hold governments and manufacturers to account can be found in the second *Lancet* Obesity series recently published.

There are some examples of countries showing leadership and implementing some of strong policies. Examples include the junk food and soda tax in Mexico, and the implementation of a large scale systems-based approach to obesity prevention in Victoria, Australia. Examples are important as beacons. They can help improve advocacy from of civil society and increase the confidence of governments.

Are current dietary guidelines and nutrition education programmes effective?

Nutrition education programmes have not been very effective to date. But they are still preferred by governments to the stronger policies that are really needed to improve population nutrition. Current nutrition education programmes could be strengthened in several ways.

First, the focus should be on compulsory cooking lessons and nutrition education in schools in order to encourage children from young ages to cook for themselves and their families.

Second, marketing fresh fruits and vegetables through creative campaigns could be inspiring for the public. An example is the recently announced 'Brand FNV' campaign (www.fnv.com) to sell fruits and vegetables to moms and teens in the US. Are fruits and vegetables about to replace junk food on billboards?

Third, existing dietary guidelines could be improved by focusing beyond simply meeting nutrient reference values. The best dietary guidelines in the world to date are definitely those from Brazil. They focus on nourishment, promotion of traditional cuisines and eating cultures, and enjoying foods and meals in company. They also focus on reducing the amount of ultra-processed products in diets, which is crucial for disease prevention, the reduction of population sugar, salt and saturated fat consumption, and the resumption of sovereignty over local food systems.

What types of civil society groups are most responsive to the big issues?

I think social and ideological movements stand out when they get people to adopt and maintain important changes in their ways of life. These movements are often religious, or concerned with civil, animal, women's and other rights.

But it is difficult for people to resist pressures from the toxic environment that promote obesity through energy overconsumption and insufficient physical activity. One strategy to overcome this is for existing civil society organisations and social movements to network and collaborate with like-minded groups in allied fields such as sustainability, social justice, urban liveability, that share goals with those for obesity and chronic disease prevention and can be encouraged to include nutrition in their visions, missions and work.

Name up to three inspiring leaders likely to be active to 2030, with reasons

There are many inspiring people around. One is are Carlos Monteiro for his

leadership on the amazing and inspiring Brazilian dietary guidelines that were recently published. Another is David Stuckler for his big picture thinking and work on detailing the human cost of austerity. A third is Muhammad Yunus, the founder of the Grameen Bank. This said, I believe there is a leader in every one of us if we pursue our passions to create positive change and never give up hope.

Malcolm Gladwell states that to create tipping points, we need connectors, information specialists and persuaders. We need all sorts of 'leaders' really. We should always remember that very small changes accumulate to create big tipping points, and we can all contribute in our own capacities.

Identify up to three of your greatest fears, with reasons

My biggest fear is that all of us are not currently doing more than simply fiddling around the margins, and are stuck in our current ways of life. Problems such as obesity and climate change are complex, but too often this is used as an excuse to do nothing or very little. Corporations are displacing national and local food systems; and only radical changes will have a substantial impact. Creativity and patience are needed; but also, passion and hope. Many of the changes needed will increase the happiness and well-being of people and future generations.

Identify up to three of your greatest hopes, with reasons

I hope that new global movements will be created to reduce the impact of transnational corporations on everybody's meals, diets, health, environment and lives. I also hope that more and more societies will collaboratively re-experience living and eating convivially.

This may be the most powerful antidote to the current snacking and grazing culture imposed by corporations. This implies a re-thinking of how to live life and how to build and strengthen communities. Well-being is about nourishment and caring about each other, our culture, and environment, instead of about money and power. This is how to recover and regain what has been and is being lost.

Make any other remarks as you may wish

The urgency for action, using what is already known, is now much greater than the urge to continue the generation of more knowledge only. As Leonardo da Vinci stated: 'I have been impressed with the urgency of doing. Knowing is not enough; we must apply. Being willing is not enough; we must do.'

*Vandevjigvere S. Development. Visions for this century: 7 [Update]. World Nutrition June 2015, **6**, 6, 472-475*