

Exit Ramp

January/February 2011

RAMP organization dissolved

This is an unofficial final issue of what used to be RAMP Info, newsletter of Rochesterians Against the Misuse of Pesticides, now dissolved by a board majority. Without RAMP's 501(c)(3), the newsletter no longer has tax exempt and bulk mail advantage. A future version with a new name will be emailed. Paper copies of Exit Ramp will arrive by hand and by snail mail to those whose email addresses I do not have. Future issues containing articles relating to environmental issues will be emailed to those who send their email addresses to audreynewcomb@frontiernet.net

Hydraulic fracturing is the wrong way to bolster NY's economy

Hydraulic fracturing, or fracking (HF), involves high-pressure pumping of up to three million gallons of water per well more than a mile vertically underground and then bending pipes horizontally. The process uses huge amounts of water, some seriously toxic chemicals, and massive amounts of energy. Its parallel to deep water oil drilling has increased public skepticism. In December, then Gov. David Paterson issued an executive order imposing a partial moratorium on fracking until July 2011; but the order applies only to horizontal, not vertical wells, which were shown to contaminate water in Dimock, Pennsylvania and are still undergoing environmental review. Grassroots supporters celebrated at an Albany rally in December, at which actor/director Mark Ruffalo said: "We are the first state in the nation, the first nation in the world, to stand up against the dangers of hydrofracking. Millions of dollars came in against us and the hard work that we've been doing, and we still won. But it's the first game in the playoffs, alright? And we still got plenty of games ahead."

In 2001, having just taken office, George Bush created National Energy Policy Development Group chaired by Dick Cheney to "develop a national energy policy designed to help the private sector." An exemption to remove EPA from HF oversight was removed in 2003, preserving Safe Water Drinking Act (SWDA) protection; but in 2005 Sen. James Inhof (R-OK) put back in the exemption known as the "Halliburton Loophole." Removal of the only obstacle to natural gas drilling enabled the natural gas industry to move full speed ahead with HF operation, and without disclosing the chemicals. SWDA no longer regulated such toxins as arsenic, barium, and strontium that are found in water tests right after drilling. Although industry touts HF as a time-tested technology dating back 60 years, traditional gas-drilling technologies did not produce a million gallons of hazardous flowback that would strain the capacity of municipal water treatment facilities. The old technology did not use anywhere near the amount of pressure needed to get through to the gas, a process that literally cracks the earth apart. Traditional HF did not use invasive horizontal drilling techniques. Nor did it use the complexity of chemicals now required.

World-class scientist and endocrine disruptor expert Theo Colborn literally followed trucks containing these chemicals. She combed through MSDS sheets, collected samples, and compiled a partial list (now over 1,000) mostly composed of the same endocrine-disrupting industrial chemicals that cause the same symptoms found in people exposed to fracking in Wyoming, Colorado, Texas, and more recently Pennsylvania, where ethylbenzene and toluene were found in virtually every sample taken from Dimock Township water. Many other chemicals, including diesel fuel, carbon disulfide, naphthalene, zylene, solvents, petroleum distillates, aromatic hydrocarbons, reagents,

and surfactants are combined to reduce friction, eliminate algae growth, and perform other functions when water is pumped underground under pressure to fracture shale and release natural gas. Dr. Colborn estimates that 30-70% of liquids injected underground can resurface at any time, any place. Fracking problems go beyond lab experiments, she says, because no two places are geologically alike. She's also afraid the research will evolve into a process that brings in non-scientists to represent stakeholders. Coburn knows—that's what happened to the 1996 endocrine disruption panel. She's on the fracking panel, but may be outnumbered by industry reps (standard procedure on similar panels typically allows only one token distinguished scientist on a panel dominated by corporate advocates). HF has never been thoroughly investigated. DEC and counterparts from other states lack adequate budget and staff to inspect or monitor HF wells. Citizen complaints of contaminated well water are often disputed by agencies that side with industry and deny cause and effect. Desperate for clean water, citizens may have no other option than to sign no-disclosure agreements that provide them with no legal recourse.

ChesapeakeEnergy and StatoilHydro want to develop around 15,000 horizontal wells over 20 years, covering more than 32,000 leases in PA, NY, WV, and OH, then expand worldwide. Chevron and Exxon-Mobil are buying wells, too. It's clear that oil, natural gas, and coal industries use extreme, expensive, and dangerous technologies because the world is running out of cheap, easily obtainable oil, natural gas, and coal. They'll spend whatever it takes to extract the last drops of gas and oil and lumps of coal to plunder the planet. Instead of falling into their trap, it's time to stop propping up state and local economies with deep water oil drilling, mountaintop coal mining, and hydrofracking, and to insist instead on the acceleration of alternative energy processes.

Let's not wait until we're all standing out in the cold.

Koch millions wreak havoc

Charles and David Koch have donated millions of their giant fortunes to non-profit groups that support deregulation and low taxes for industry. Teams of Koch position paper writers fill the Cato Institute, founded in 1977 by the two brothers. Cato purports to be non-partisan so receives media respect, but its underlying message is corporate tax cuts, social service reduction, and environmental deregulation. Following a *New York Times* ad supporting Pres. Obama's policies to combat climate change, the Kochs denied the role played by human activity. Five independent inquiries have since exonerated the so-called climategate scandal researchers; nothing in their emails was found to dis-

credit scientific global warming consensus; but the controversy succeeded in making skeptics of a lot of people. This is a public relations strategy that corporations have used before, notably the tobacco industry, which avoided regulation for over a decade by questioning the science and fomenting doubt.

When EPA proposed reducing surface ozone in 1997, a top official from Mercatus Center, another Koch think tank, protested by arguing that removing smog would increase skin cancer. Two years later, a circuit court ruled 2-1 that that ozone was beneficial to health. The majority judges were found to have ties to the Kochs' Foundation for Research on Economics and the Environment. The Kochs have bankrolled dozens of organizations with greenwashed names: Citizens for the Environment called acid rain a myth; Citizens for a Sound Economy waged a successful campaign against President Clinton's BTU tax on energy by giving generously to candidates opposing the tax. Many anti-tax rallies have been sponsored by the Kochs to build public support for opposing regulation legislation.

All the while, two lawsuits named Koch Industries as the cause of more than 300 oil spills that released an estimated three million gallons of oil into lakes and rivers. In 1999 a jury found Koch Industries guilty of negligence and malice in the deaths of two Texas teen-agers in an explosion resulting from a leaky underground butane pipeline. A year later Koch Petroleum Group received a 97-count indictment for covering up a 91-ton benzene discharge from its Texas refinery. The company was forced to pay millions in fines, which most polluters accept as the cost of doing business (see Pfizer article in this issue).

Although the Kochs have influenced elections for two decades, hardly anyone had heard of them until their involvement with the Tea Party movement prompted Jane Mayer's August 30 *New Yorker* exposé. Although the brothers prefer to remain in the background, they take financial and organizing credit for the Tea Party phenomenon.

As a cancer survivor, David Koch joined the fight against cancer, donating to hospitals and joining National Cancer Society's advisory board, while at the same time he had been lobbying to prevent EPA from setting strict new measures to control formaldehyde, an EPA-designated human carcinogen.

Koch Industries produces over 2.2 billion pounds of formaldehyde a year. A Koch spokesman strongly protested the proposed regulation of formaldehyde to the National Institutes of Health while David Koch sat on its panel. Nor did he recuse himself or divest himself of company stock while his company was directly lobbying the government to keep formaldehyde on the market.

Although usually associated with embalming and laboratories, formaldehyde's multiple uses include particleboard, plywood, fiberboard, plastics, dyes, cosmetics, paint, paper, glues, adhesives, disinfectants, shampoos, conditioners, air fresheners, antiseptics, and carpet cleaners; it also offgases from gas stoves. Methanol oxidizes when formaldehyde is breathed or absorbed through skin by tobacco smoke or tailpipe emissions.

Health risks recently assessed under the Consumer Products Safety Act of 2008 revealed an unsuspected formaldehyde use—wrinkle-free fabrics. Unregulated and unlabeled formaldehyde levels are found in US clothing, much of which is imported. Wash-and-wear clothing containing formaldehyde can cause dermatitis, resulting in itchy skin, rashes, and blisters.

Head lice and bed bugs

An infestation of bed bugs or head lice is an unpleasant nuisance, to say the least. But there are good ways to get rid of them, and insecticide products are not among them. Bed bugs are not only often resistant to lindane, but lindane is very toxic to humans (A comprehensive review of the bed bug challenge can be found at beyondpesticides.org/bedbugs). The same housekeeping practices that Beyond Pesticides has been recommending for schools, hospitals, public buildings, and homes for the past decade apply to bed bugs: Eliminate points of entry, habitat, and sources of food and water attractive to unwanted rodents and insects; incorporate monitoring, sanitation, sealing, and heat treatments; caulk and seal crevices; eliminate clutter; vacuum and discard bag immediately afterwards; dislodge eggs in cracks and crevices with stiff brush; wash and dry clothing for a full cycle at hottest setting fabric can tolerate; use a mattress and box springs encasement, which will eventually kill all bed bugs inside. Steam and heat treatments reaching 120F kills bedbugs at all stages, best done by professionals. All chemical products to combat bed bugs contain insecticides that cause short- and long-term health-damaging effects. Bed bugs do not carry disease. They cause itching and inflammation that can be controlled by much less toxic remedies than pesticides.

Standard head lice treatments recommended by schools and pediatricians are often prescription drugs containing lindane or over-the-counter pyrethrin products. These chemicals are unsafe, and lice are resistant to them. Lindane, an organochloride similar to DDT, is neurotoxic, carcinogenic, an endocrine disruptor, and causes liver and kidney disease. EPA categorizes it as a persistent, bioaccumulative pollutant toxic to birds, bees, and fish, and banned it for agricultural use in 2006. It is banned outright by 50 countries and the Stockholm Convention on Persistent Organic Compounds, but the US still allows it for head lice. Toxic effects of permethrins are multiplied when combined with piperonyl butoxide, resulting in tremors, aggressive behavior, learning disabilities, and cancer. FDA needs to remove its over-the-counter designation for lice shampoo containing this dangerous mixture. Safe, effective head lice remedies are available without using these chemicals.

Once again, an integrated approach relies on a combination of different methods, beginning with a preventative no-share rule for hair accessories. An effective elimination method is hot air with a hand-held hair dryer. Applying it to sections of the head for 30 minutes has been found to kill 98% of nits (eggs) and 55% of adult lice. Also heated olive or coconut oil loosens nits using a nit comb. Lice have 24-hour life cycles, so hair, bedding, and clothes need washing at least that often. Vacuuming the house daily prevents reinfestation. Because of short lice life cycles, the 2-week waiting period before insecticide re-application poses a disadvantage because re-infection can occur before two weeks are up. Safe alternatives can be repeated daily.

California became the only state to ban lindane for head lice use because Los Angeles municipal treatment officials found lindane residues in waste water treatment plants escaping downstream into rivers, lakes, and oceans. Partnering with the grassroots National Pediculosis Association, they received an EPA research grant to educate the community about lindane hazards (pediculosis means infestation with lice). The program targeted institutions involved with lice treatment: hospitals, pharma-

cies, schools, day care centers, and prisons. It was the first major program to convince physicians to change the medications they prescribe, based on environmental concerns. The ban took effect in 2002, causing average lindane concentrations to drop 50% in the Long Beach and Burbank outreach areas within the first year. But a 2004 Assembly bill to ban pharmaceutical use of lindane was unsuccessful in New York State.

Resisting global destruction

“I’m continually stunned by how many seemingly sane people believe you can have infinite economic growth on a finite planet,” says Derrick Jensen, in *Orion* magazine’s February 2011 issue. Jensen, often dubbed poet-philosopher of the ecological movement, refers to people such as Pres. Obama’s former National Economic Council director Larry Summers, who has said that “the idea that we should put limits on growth because of some natural limit is a profound error.”

Others may acknowledge that physical limits exist, believing that at the same time we can overcome them with high-tech economies or green innovations. But an economic growth system must constantly increase production, which Jensen says “is the conversion of the living to the dead, of living forests into two-by-fours, living rivers into stagnant pools for generating hydroelectricity, and ultimately into money, which leads to colonizing an ever-wider swath of the planet and exploiting its inhabitants, inevitably leading to wars.”

In our own country, the bison massacre forced the Plains Indians to depend on the growth economy instead of the land. But growth economies are “essentially dead-end streets: once you’ve overshot your home’s carrying capacity, you have only two choices: keep living beyond the means of the planet until your culture collapses; or proactively elect to give up the benefits you gained from the conquest in order to save your culture.”

A perpetual-growth economy is based on the same conceit as more personal forms of abuse. According to therapist Lundy Bancroft, who counsels abusive men, “an abuser refuses to respect or abide by limits set by his victim. His belief in his own entitlement provides him with exclusive privileges that do not apply to his partner.” Similarly, a sense of entitlement grants humans exclusive rights to work our will on the world. Jensen says that “growth economies are essentially unchecked and will push past any boundaries set up by anyone other than the perpetrators: certainly the fact that indigenous cultures already are living on this or that piece of ground has never stopped those in power from expanding their economy; nor is the death of the oceans stopping their exploitation; nor is the heating of the planet stopping the exploitation; nor is the grinding poverty of the dispossessed.” Bancroft has found that a domestic abuser isn’t stopped by logic, religious conversion, sobriety, or guilt; only, and rarely, by being put into a situation where he has no other choice than to stop.

“How do we stop abusers who perpetrate perpetual-growth economies? Seeing oiled pelicans and burned sea turtles won’t stop them; nor will 100-degree days in Moscow. Making them feel guilty by appealing to them to do the right thing hasn’t worked. The only way to stop them is to make it so they have no other choice.” Figuring out how to accomplish such a feat is daunting but not impossible if we look at the situation we’re in, decide what we value most about living on earth, and set out to perform concrete actions to keep it from being destroyed.

Non-causes of effects

Gas prices that started to go up in 2003 reached their peak by summer 2008, causing great hardships for people around the world. Here in the US, politicians, government agencies, and media struggled to come up with reasons why gasoline and food prices were so high. Distracted by the presidential campaign, the press failed to dig deep for the answer, coming up only with partial or unspecific reasons such as “global oil demand,” (*New York Times*), “switch to pricier summer blends,” (*CNN*), or seeing the bright side because it “spurred people to make permanent lifestyle changes,” (*USA Today*).

But the real story, according to information researched in Matt Taibbi’s November book *Griftopia*, had to do with the penetration in 2003 of index market investors into commodities markets. Commodities markets (corn, wheat, cotton, etc.) have traditionally existed to balance supply and demand in the short term, and have performed to the advantage of farmers and suppliers partly because they do not widely fluctuate. When index speculators urged on by Goldman Sachs entered commodities markets, prices rose and fell the way they normally do in index markets, while causing disruption in the commodities market.

Taibbi says, “What really happened was that Wall Street had opened a new table in its casino. The new gaming table was called “commodity index trading.” And when it became the hottest new game in town, America suddenly got a very painful lesson in the glorious possibilities of taxation without representation. Wall Street turned gas prices into a gaming table, and when they hit a hot streak we ended up making exorbitant involuntary payments for a commodity that one simply cannot live without. Wall Street gambled, you paid the big number, and what they ended up doing with some of that money you lost is the most amazing thing of all. They got America—you, me—to pawn its bridges, highways, and airports they forced us to buy in the first place. Literally sell our sovereign territory.”

FDR’s congress passed the Commodity Exchange Act in 1936, designed to prevent speculators from interfering with everyday necessities like food and gasoline. That worked for about 50 years until 1991, when Goldman Sachs bought a commodities trading company and convinced the government oversight Commodity Futures Trading Commission (CFTC) to recognize that index traders were taking risks even as were farmers, and should be allowed to enter the commodities market. In 2003, CFTC granted an exemption to the Goldman subsidiary to speculate in the commodities market. In the years to follow, CFTC gradually granted exemptions to 16 other companies. By 2008, at least 80% of commodity exchange activity was speculative. The exemptions were given in secret, only discovered offhand at an Energy and Commerce committee hearing when a staffer mentioned them in passing. Officials investigated and found Goldman reluctant to produce the letters of exemption for the committee. These letters amounted to a massive subsidy to Goldman and other companies receiving them. The S&P GSCI, holding about 2/3 of the index-speculation market, tracks prices of 24 commodities; and DowAIG, which holds the other third, tracks the rest, mostly crude oil. Speculators do rate swaps, rolling, hedging, and other things many of us do not understand. But when index speculators buy commodities over time as investments, it destroys the concept of short term liquidity, which is what holds commodity markets together.

Long-term investments make money for speculators when they rise, but this is not good for farmers or consumers or businesses selling these products. Goldman and others with letters of exemption took control and upset the delicate balance that had prevented the bubble for decades.

The market spike had nothing to do with oil—there was no US shortage. However, lacking a credible answer, politicians made up their own. Candidate Obama attributed it to greedy oil companies and wasteful gas-guzzlers. The shaky dollar may have been a minor factor, but increased demand from China's oil consumption was probably not. Over that 5-year period Chinese oil increases were modest compared to oil index speculator money entering commodities markets during that time. McCain blamed it on socialists like Obama refusing to permit immediate oil drilling off the coast of Florida.

Pension and trust funds had also traditionally been barred from risky speculative ventures prior to the Uniform Prudent Investor Act of 1994, which paved the way for the 2003 CFTC rule changes permitting investing pension funds in commodity futures. By the mid-to-late 2000s, stock, consumer credit, and housing markets had all either imploded or were about to implode. Looking for a safe, quality opportunity, investors were encouraged to switch to commodity futures.

In testimony before Congressional committees, Commodity Futures Trading Commission CFTC economist Jeffrey Harris said there was "little evidence to suggest that prices are being driven by market speculators, but by powerful fundamental economic forces and the laws of supply and demand evidenced by emerging market demand, weather or geopolitical events, and a weak dollar." Harris was so anxious to dismiss commodity oil trading as a cause that he tried to change the testimony of Fadel Gheit, energy analyst with Oppenheimer & Co. Inc. since 1994, among the few who had early on and correctly analyzed the situation. Gheit doesn't doubt that Goldman advised Harris to downplay commodity index trading as a major cause of the bubble.

Fluorescents may cause harm

Unless you get up at dawn, go to bed at sunset, and spend the time in between outdoors, the quality of artificial lighting you select for your home or is selected for you at school or workplace may affect your health and well being. Governments and green groups, in an effort to cut down on electricity usage, have encouraged the public to substitute compact fluorescent lights (CFLs) for conventional incandescent bulbs. Federal law now mandates an incandescent bulb phase-out that begins in 2012, and to be completed by 2014.

Ban proponents point to the amount of electricity needed to power an incandescent light bulb, which requires more coal power plant mercury emissions into the atmosphere than the amount of mercury released by a 10-times-more-efficient CFL. But achieving energy efficiency through fluorescent lighting may risk human health.

The push to mandate CFLs follows by about 70 years the introduction of fluorescent tube lights in public buildings at the 1939 New York World's Fair. By 1950, tube lights were common in schools, offices, hospitals, and factories. Exposure to these lights was allowed to become widespread without investigating health effects. Similarly, the coming mandate to add homes to the already fluorescently lighted schools and

work places is rarely questioned, except sometimes on quality-of-life or aesthetic grounds.

Broken fluorescents release mercury into the air; but so do intact ones, even "daylight" or "deluxe" versions. Virtually all are dominated by a spectrum containing sharp, intense radiation energy spikes concentrated in specific wave lengths.

Peter Aleff's interest in the subject was prompted by his own premature child's exposure and subsequent blindness following the over-use of fluorescent lights in the preemie hospital nursery. Aleff's curiosity about hospital lights led him to pursue further research into fluorescent lighting. Examining its role in early onset age-related macular degeneration (AMD), he noted a series of circumstantial clues suggesting that retinal damage from early and frequent exposure to fluorescent lights might be a factor in the current epidemic of accelerated blinding by AMD.

AMD now damages vision earlier than it did prior to about 1990, at which time its name was changed from senile macular degeneration to AMD, reflecting a gradually emerging reality that the disease was affecting people in their 50s and 60s, sometimes even earlier. In 2004, the US National Eye Institute included in its AMD survey anyone from age 40 up, which came to 7 million people with early stage AMD. The institute predicted the number of severe cases to increase to 1.3 million by 2020 (Lim, Jennifer, ed., "Age-Related Macular Degeneration," *Informa Healthcare USA*, NY 2008). Children exposed to fluorescent lights in schools between 1950-60, now in the 60-70 age bracket, are most likely to show early-stage AMD symptoms, and happen to be the first generation to grow up under fluorescent lights in their classrooms.

Epidemiological and occupational safety studies have linked AMD to lifelong accumulation of retinal damage from light in the damaging blue and shorter wave lengths, resulting in destroyed photoreceptor buildup in the retina's most light-sensitive area. (Lerman, L: "An Experimental and Clinical Evaluation of Lens Transparency and Aging," *Journal of Gerontology*, 1983).

Children's eyes are not yet as yellowed with age as those of adults and therefore do not yet have the slowly acquired protection from harsh and retina-damaging blue-violet energy spikes. From birth through teens, children's eyes are more transparent to blue and shorter wavelengths than those of adults (Table of Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, 1997).

Virtually all fluorescent lights, including most CFLs, concentrate much of their energy in the mercury emission lines emitted in the ultraviolet region by the excitation of the mercury atoms inside the lamp. These spikes account for about 8-10% of the lamp's energy emissions. The emission spike at 435.8 nanometers is in the most retina-damaging region of the visible spectrum, as determined by laser safety researchers in experiments on a range of animals from mice to monkeys, and by examinations of human eye injuries from overexposures in welding accidents or from staring at the sun (Sperling, G. "Functional Changes and Cellular Damage Associated with Two Regimens of Moderately Intense Blue Light Exposure in Rhesus Monkey Retinae").

Exposure to sunlight can have the same effect, but people are less likely to stare at glaring sunlight without squinting or

averting their eyes. Fluorescent light intensity is usually not sufficient to cause them to look away, but its overall intensity is enough to reach the narrow spike in the most retina-damaging region, causing slow photochemical damage in their most light-sensitive area, the macula (Miller, David, "Clinical Light Damage to the Eye," Springer Verlag, NY, 1987).

The latency period between childhood exposure and middle age seems to "blind" medical professionals from recognizing the need to investigate AMD causes other than the most commonly suspected risk factors—genetics and sun exposure. Some doctors, alarmed by the steady rise of AMD, are recommending sunglasses for children at early ages. The sun has come to be feared as a cause of AMD in a similar way that sun exposure is regarded as the cause of melanoma. Little research has been done to prove or disprove the sun's role in these diseases, and an increasing body of evidence documents vitamin D deficiency as at least a partial cause (Holick, Michael MD, PhD, *The Vitamin D Solution*, Hudson Street Press, April, 2010). As with some equally elusive cancers or lung contamination diseases, the acute phase of AMD has a long latency period of gradual build-up and manifests itself many years after the initial injuries. This places it in the same category as DDT, vinyl, asbestos, lead, phthalates, tobacco, PCBs, and endocrine disruptors, all destroyers of health that were promoted and widely used by the public before steps were taken to prevent their harmful effects. Even today some of them are not adequately regulated.

Light emitting diodes (LED) are seen as the lighting of the future. They use 85% less electricity than incandescents and 45% less than CFLs. CFLs last 10 times longer than incandescents, but LEDs last 50 times as long, produce little heat, and contain no UV or mercury. LED lights are efficient for traffic signals, street lights and in computers and TVs, but the initial cost of a bulb is considered prohibitively high (although LEDs are cost effective following initial investment). In January 2010, the US Energy Department awarded over \$37 million in stimulus funds to lighting companies for research and development projects. The goal is to accelerate adoption of LEDs by improving quality and cost, while also encouraging production in the US. GE, the largest light bulb manufacturer worldwide and self-proclaimed "green" advocate, is among fund recipients, but more than half of GE factories are overseas. So—it's an open secret that CFLs are a transition technology. Perhaps they weren't 60 years ago when market tube fluorescents were marketed to public and private institutions. But how much did governments and green advocates know about health effects and transition technology before urging public purchase of CFLs for home use? And now that they do know, wasn't it disingenuous of the government to mandate future home use of CFLs and remove affordable alternatives without informing the public that CFLs are a temporary measure to put up with until a cheaper LED bulb is available?

Flu vaccine ethics questioned

A June 2010 *British Medical Journal* and Bureau of Investigative Journalism joint report strongly questions the declaring of an H1N1 pandemic by the World Health Organization (WHO) in June 2009. The report also alleges conflict of interest, including financial ties between pharmaceutical

companies producing the vaccines and confidential WHO advisors. The report charges that the declaration decision exaggerated H1N1 dangers, triggering purchase of billions of dollars of hastily manufactured vaccines, some of them untested. Forty million expired US swine flu vaccine doses worth about \$260 million were incinerated in the summer of 2010. About 30 million more doses expired in the fall, for a total of 43% of the total US supply. Surpluses generally run around 10%. This year the figure was 25%. France, Germany, and the Netherlands are among countries that also experienced H1N1 surpluses. Finland and Australia banned H1N1 when harmful side effects deemed it necessary.

Evidence for H1N1's efficacy is not convincing. Double blind experiments have not been done. WHO gives no credible explanation as to why a dose containing double seasonal vaccine plus single H1N2 (making it into a triple) is advised for ages 6 months to 65 this year; or why seniors are urged to get quadruple vaccines. Some might ask if H1N1 shots are from leftover batches; or question whether evidence exists that flu shots of any kind really work; or if multiple doses are safe, especially in light of reports that the new combinations will not be tested until shots have already been administered. It is shocking that vaccine questions such as these are rarely asked or answered in the mainstream media. Scientists continue searching for new vaccines, each one of which is a bonanza for the pharmaceutical industry, as pharma-financed medical research grants come up with endless vaccines for endless diseases.

Public health is not well served by pretending that combating infectious diseases by vaccination keeps us healthy, not only because vaccinations are harmful to some, but also because this drumbeat encourages the unproven belief that vaccines strengthen the immune system.

Environmentally caused disease prevention, on the other hand, is almost never a worthy public health agency consideration. The estimated 90% of environmentally caused cancers, for example, is not seen as a public health problem because prevention and treatment measures are handled by medical practitioners. However, environmentally caused diseases are not, for the most part, prevented by the medical community. They may be detected sooner by machines and sometimes treated successfully. But the only way to prevent environmentally caused disease is to clean up environments where people live and breathe. The vast financial resources required to make that a worldwide priority are hard to come by. But that may be because our priorities are askew.

Some sales receipts contain BPA

In an effort to press for a federal ban on food packaging made with the synthetic estrogen disruptor bisphenol A (BPA), Environmental Working Group (EWG) was shocked to find even larger amounts in sales receipts from major retailers, grocery and fast food chains, gas stations, post offices, and ATMs. Testing commissioned by EWG on heat-activated paper found 2/5ths of receipts tested to be nearly 3% BPA by weight. Wipe tests conducted with damp lab paper easily picked up a portion of the paper's BPA coating, indicating that it would stick to the skin of those handling the papers. Research findings exist that show BPA transfers readily from receipts to skin and penetrates skin deep enough that it can't

be wiped off, thus entering the bloodstream (Biedermann 2010, Kaddar 2008). Current studies will find the extent of BPA's oral and dermal routes into the body. University of Missouri's Biological Sciences lab investigated receipt content and found the total mass of BPA on a receipt is 250 to 1,000 times greater than the amount of BPA typically found in a can of food or baby formula, or leaching from a BPA-based plastic baby bottle into its contents. Animal testing has found that BPA can induce abnormal reproductive development, diminished intellectual capacity, and behavior abnormalities that can set the stage for cancer, obesity, diabetes, early puberty, asthma, and cardiovascular disorders. Moreover, BPA alters genes in ways that can be passed on to the next generation. Thermal paper is widely used for point-of-sale receipts. Thermal printers use paper coated with dye and developer sometimes containing BPA. The good news is that stores can ask their suppliers to use the alternative! Although anyone who shops should minimize paper receipt exposure, retail workers are most at risk, carrying 30% more bodily BPA than other adults. They handle BPA-laden receipts 100s of times a day with as yet unknown health consequences. The two largest US occupations in May 2009 were retail salespersons and cashiers—10 million Americans.

Pesticide-contaminated water

In a talk given at the April 2010 Beyond Pesticides National Forum, Indiana University School of Medicine's Paul Winchester said that seasonal pesticide and nitrate runoff periods on corn fields coincide with conception dates for children having lower scores on math and language tests. Fertilizer/herbicide runoff from corn fields into surface waters is also highest during summer months. High levels of nitrate and the widely used insecticide atrazine are suspected of derailing the normal production of thyroid hormones known for their crucial impact on intellectual development. The earliest stages of pregnancy are the most susceptible to outside disruption of developmental processes. "Exposure to pesticides and nitrates can alter the hormonal milieu of the developing fetal brain," says Dr. Winchester, who also looked at agricultural contaminant levels in water associated with premature birth and birth defect incidence. "US preterm births vary month to month in a recurrent and seasonal manner. Pesticides and nitrates similarly vary seasonally in surface water and can disrupt endocrine hormones and nitric oxide pathways in the developing fetus." He studied data from 27 million births from 1996 to 2002 to identify these correlations. Premature births were 12% for June conception (highest for the year) compared to 10.4% for September conception (the lowest month). Amounts of fertilizers and herbicides applied to corn crops have been even greater since 2002 due to increased ethanol production. Winchester says every newborn baby in the US has a mixture of contaminants, as does every river and stream. Animal models show that a fetus forms an imprint that sets the stage for life. If damaged during that window of time by pesticides, nitrates, plasticizers, PCBs, BPA, flame retardants, lead, mercury, and protein/vitamin deficiencies, the imprint not only alters its own life but also the lives of its descendants.

Fines don't faze Pfizer

Public Citizen's Sidney Wolfe reported December 17 on *Democracy Now* that for each of the past three years pharma has overtaken defense as the top government defrauder, having had the most civil and criminal penalty claims made against it

under the False Claims Act. In 2009, Pfizer paid \$1.2 billion for off-label uses, the largest criminal fine ever for anything in the US. Other fines are for Medicare and Medicaid overcharges. In spite of these outrageous penalty numbers, no one from the pharmaceutical industry has ever gone to jail as a result. Pfizer, GlaxoSmithKline, and others simply pay the fine; it's chicken feed to them. Their profits are so enormous that paying fines does not punish them. A top FDA lawyer, Eric Blumberg, in a speech before industry and FDA lawyers three months ago, said the only way to stop them from violating the law and endangering peoples' lives is to greatly increase fine amounts and start putting those guilty of these crimes in jail. Saying this took a certain amount of courage, and his remarks angered pharma. Blumberg is well aware of the fact that pharma directly finances FDA through cash payments, which this past year amounted to \$8 million. Pharma pays for 2/3 of drug reviews, legal under a 1992 law, in addition to the \$200 million paid out to lobby not only Congress but also FDA itself.

Pulitzer Prize-winning authors James Steele and Don Bartlett write in *Vanity Fair* (January 2011) that pharma has dramatically increased drug testing outsourcing, shifting most trials to China and India. FDA's will to monitor these trials and its resources to do so have been inadequate, even when conducted in the US, but the prohibitive expense of overseas monitoring gives pharma free rein. Moreover, a clinical trials industry is emerging that transfers overseas operations from medical institutions to pharmaceutical companies, who hire local doctors and staff who then report back to the companies. Pharma can decide not to report negative results not only to the government but also to other researchers and drug companies working in the same field. Trial subjects are often poor and vulnerable, often signing up with an X. More US deaths occur annually from prescription drugs than from diabetes.

HHS finally figures out fluoride

In a remarkable turnabout, US health officials (CDC, HHS) have recommended a reduction of fluoride levels in drinking water from 1.2 ppm to .7 ppm. For the first time in over 50 years the US has reviewed the science and found that excessive fluoride is not only causing the most visible result of fluoride poisoning—fluorosis (spots on the teeth)—in two out of five adolescents, but also other, more serious health problems. The government first began urging municipal water systems to add fluoride in the early 1950s. Since then, it has been added to toothpaste, mouthwash, soda, and bottled water, increasing fluoridation doses that already vary according to the amount of water consumed and added to concentrates. EPA's newly released research review found that high fluoride intake can increase risk of brittle bones, fractures, and crippling bone abnormalities. A 2006 National Academy of Sciences report recommended lowering its maximum allowable level in drinking water. The report also warned that severe fluorosis could occur at 2 ppm and that a lifetime of drinking water with fluoride at 4 ppm or higher could raise risk of broken bones. Another EPA 2005 report urged reducing the permissible level of fluoride in water to zero, citing research suggesting it can cause cancer. Zero sounds about right; but the proposed reduction will help save face for all the dentists, government agencies, and a myriad of other authorities that have pushed this questionable measure for so long, and ridiculed anyone who disagreed with its lack of scientific vetting more than a half century ago.