



UNITARIAN UNIVERSALIST MINISTRY FOR EARTH

ENVIRONMENT & JUSTICE GREEN PAPER 4

ENVIRONMENTALLY- LINKED HEALTH ISSUES

Location! Location! Location!” The slogan bodes well for real estate buyers. Its ring is more ominous for people of color, those with low incomes, and members of other marginalized groups. Where we live, who we are, where we go to school, and how we support ourselves are inextricably tied to our risk for environmentally-linked health conditions.

The World Health Organization (WHO) estimates that one-fourth of all diseases at a global level have a major environmental component (World Health Organization, 2006: "Preventing disease through healthy environments: Towards an estimate of the environmental burden of disease." ¹ According to WHO, the U.S. has 19 disability years of life lost, compared with a range of 13 - 289 worldwide, and thirteen percent of the total burden of disease in the U.S. has been attributed to environmental factors. ²

Historically, calls for environmental justice have condemned the inequitable impact of human-created environmental problems and advocated that these problems not fall unfairly on any human group, usually defined by race or income. As our modern world becomes more complex and those complexities are illuminated by new discoveries in science, our Unitarian Universalist principles call us to not only continue this strong advocacy, but to expand our justice work to include all living beings on our planet, human and non-human, whose health, lives and habitat are put at unnecessary risk by greed, neglect, illegal activity and failure to implement existing prevention measures.

Our industrialized world releases increasing amounts of toxic compounds that can negatively affect everyone who is exposed, regardless of circumstances, but too often these dangerous substances are concentrated in areas inhabited by the poor. The lower one's income, the greater the risk of exposure to toxic substances at home and on the job. There is greater chance of acquiring a wide range of health conditions, from cancer to asthma, caused, triggered or exacerbated by environmental factors. In addition, healthy food is less accessible and less affordable, and it is less likely that there are safe outdoor spaces for exercise and recreation. These risks are even greater if one is a person of color or another of the most vulnerable among us – those without a voice, young children, the elderly, people whose immune systems are weakened, people with mental illness, immigrants, or people for whom English is not their

¹ http://www.who.int/quantifying_ehimpacts/publications/preventingdisease.pdf. Accessed 09/12/09.

² World Health Organization:
http://www.who.int/quantifying_ehimpacts/national/countryprofile/unitedstatesofamerica.pdf,
Accessed 09/12/09.

first language. To compound the inequity, these same populations generally have less access to comprehensive health care and to resources to promote healthy living.

As industrialization has burgeoned, the burden of polluted air, water and land, and exposure to industrial pollutants and agricultural chemicals, has fallen heavily on all of us, and, especially, upon those in our communities who have less power and fewer resources. People with low wage jobs, immigrants, and the undereducated face more dangerous working conditions. In addition, racism has long been linked to the siting of hazardous facilities.³ The people who endure the ill-effects of these operations have often had little input into the decision-making processes which placed these facilities in their communities. The issue of Mountaintop Coal Removal is an excellent example of many of these environmental injustices. The Unitarian Universalist Association's document, "The Environmental Injustice of Coal" describes the disproportionate burden, including inequitable health risks, that the poor and people of color bear from all phases of coal production and use.⁴

Exposure to environmental toxins can affect present and long term health, the growth and development of children and youth, reproductive health, and our ability to manage harmful organisms in the environment. Exposure to endocrine disruptors, some pesticides, polluted air, heavy metals, solvents, certain herbicides, and a variety of consumer products including plastic are implicated in a long list of illnesses and conditions.

Non-human species are also at risk from the effects of environmental degradation. They have no voice and cannot protect themselves from air pollution, land and water contamination, and the threats of pervasive toxic synthetic chemicals. Some wildlife species may be the most sensitive indicators of environmental pollution: male fish in the Potomac River have grown ovaries in connection with the contaminants there. Deformed frogs and amphibians are appearing in increasing numbers. The oyster and crab harvest in the Chesapeake Bay, one of our national treasures, are small fraction of their former levels.

" WE MUST PROTECT THE FORESTS FOR THOSE WHO CAN'T SPEAK FOR THEMSELVES SUCH AS THE BIRDS, ANIMALS, FISH AND TREES."

**- QWATSINAS
(HEREDITARY CHIEF EDWARD MOODY), NUXALKNATION**

AIR POLLUTION

Research conducted by the National Institute of Environmental Health Sciences has shown that long-term exposure to air pollutants increases the risk of cardiovascular disease and respiratory ailments such as allergies, asthma, chronic obstructive pulmonary disease, and lung cancer. Other research substantiates the impact of air pollution on the growth and development of children. The young and the elderly are particularly vulnerable to the health effects of ozone, fine particles, and other airborne toxicants.⁵

Asthma, triggered by unhealthy air, disproportionately affects people of color in our country.⁶ In 2004, African Americans were almost three times more likely to die from asthma related causes than the White population. From 2003-2005, African American children had a death rate seven times that of non-Hispanic White children. Children in poor families are more likely to ever have been diagnosed with asthma, to have increased number of hospitalizations, and increased mortality.⁷

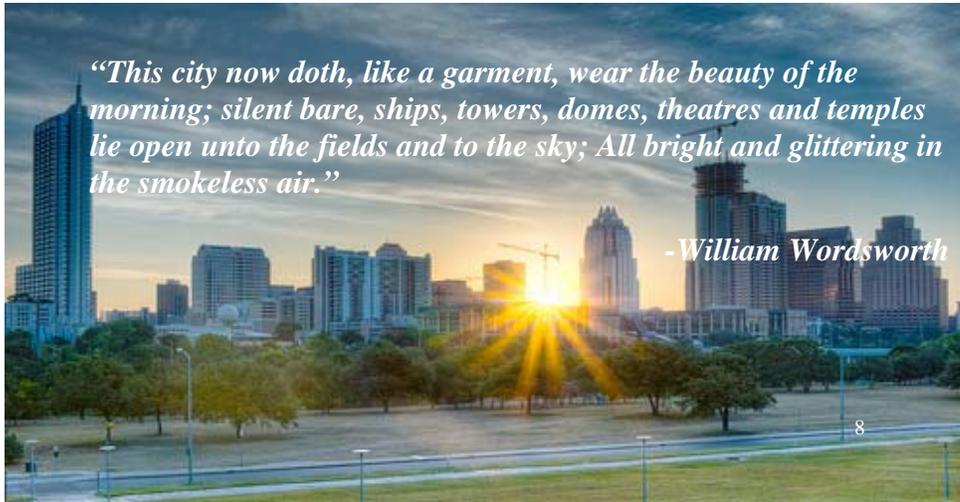
³ www.ucc.org/assets/pdfs/toxic20.pdf

⁴ www.uua.org/socialjustice/.../environmentaljustice/129413.shtml

⁵ <http://www.niehs.nih.gov/health/impacts/respiratory.cfm>

⁶ http://www.peri.umass.edu/fileadmin/pdf/dpe/ctip/justice_in_the_air.pdf

⁷ <http://www.omhrc.gov/templates/content.aspx?ID=6170>



Asthma is the third leading cause of hospitalization among children under 15 years and among the most common causes of school absenteeism. Lost school days impact graduation rates, subsequent employment options, and eventual earnings. From 2002 to 2005, 20 percent of adults in the US with current asthma reported being unable to carry out their usual activities because of their asthma symptoms during the previous month. These statistics are even more disturbing in face of the reality that asthma, when properly treated, can be controlled. Hence the disparities in death rates reflect lack of access to adequate health care as well as exposure to environmental pollutants.

Cardiac disease and chronic respiratory disease have a tremendous impact on the quality of one's life. They can limit activity. They may require medication that itself has serious long-term side effects. The personal and societal cost of these conditions is enormous.

While all of us are affected to some degree by air pollution and poor air quality, more people of color than whites live in communities that have failed to meet at least one of the Environmental Protection Agencies ambient air quality standards. The American Lung Association's report *The State of Lung Disease in Diverse Communities 2007*⁹ indicates that communities of color have greater exposure to poor quality air. They are more likely to live in counties that are violating air pollutions standards and more likely to live near near polluting industries, freeways and other heavily traveled routes.

In 2005, it was estimated that 122 million people in the United States lived in counties that did not meet air quality standards set by the U.S. Environmental Protection Agency (EPA). African Americans are disproportionately exposed to hazardous air pollution as a 2002 study that found that 71 percent of African Americans lived in counties that violated federal air pollution standards, compared to 58 percent of the White population. The study revealed that African Americans are 79 percent more likely than whites to live in neighborhoods where industrial pollution is suspected of posing the greatest health danger. The study revealed that in 19 states, blacks were more than twice as likely as whites to live in neighborhoods where air pollution seems to pose the greatest health danger.¹⁰ In 2004, more than 19 million (50%) of Hispanics lived in areas that violated the federal air pollution standard for ozone, one of the major triggers of asthma attacks.¹¹

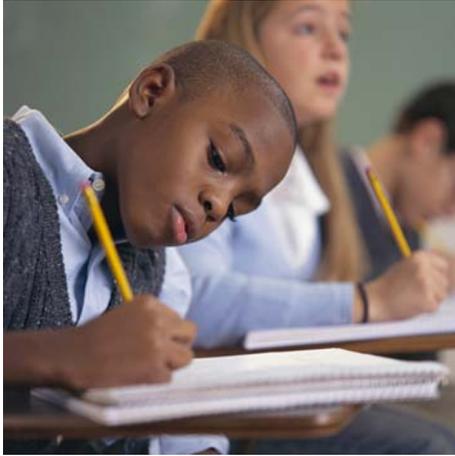
⁸ photo: Creative Commons licensing, by Definitive HDR

⁹ www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=308853

¹⁰ <http://hosted.ap.org/specials/interactives/archive/pollution/part1.html>

¹¹ <http://www.medicalnewstoday.com/articles/80843.php>

Recently, scientists linked prenatal exposure to urban air pollution to lower IQ scores in childhood. New research by the Columbia Center for Children's Environmental Health (CCCEH) at the Mailman School of Public Health ¹²



indicates that prenatal exposure to environmental pollutants known as polycyclic aromatic hydrocarbons (PAHs) can adversely affect a child's intelligence quotient or IQ. These chemicals are released into the air from the burning of coal, diesel, oil and gas, or other organic substances such as tobacco. In urban areas, motor vehicles are a major source of PAHs, which have effects similar to lead poisoning. Environmental health experts suggest these findings may help explain the differences academic performance among income levels.

Prenatal exposure to air pollution has been linked, also, to genetic abnormalities that increase risks for cancer and for developmental disabilities. A 2007 study by the US Environmental Protection Agency ¹³ cites increasing evidence supporting a connection between environmental factors and autism, Attention Deficit with Hyperactivity Disorder (ADHD), asthma, and developmental problems. Such insults to normal childhood growth and development have profound and far-reaching justice, equity and societal implications.

Scientists suspect a connection between pollutants and the neurological disorder, autism. Findings of a recent study reported in the journal *Environmental Health Perspectives* suggest that "living in areas with higher ambient levels of hazardous air pollutants ... during pregnancy or early childhood, may be associated with a moderately increased risk of autism. ...". Elemental mercury -- which is released into the air from coal-burning power plants, chlorine factories and gold mines -- appears to be particularly hazardous

Air pollution of a different sort is of concern in more rural areas. Historically, industrialized farms have been disproportionately established in poorer, non- white, rural communities, exposing the inhabitants to both significant air and water pollution. ¹⁴ Those working on factory farms, often immigrants, and those living nearby are exposed to the pollutants that emanate continuously from these facilities. The gases contain significant toxic chemicals. In particular, hydrogen sulfide, released in large amounts by the manure lagoons, is dangerous even at low levels. Its serious, often irreversible effects, range from sore throats to seizures and other neurological disorders, comas and even death. Other health effects associated with the gases from factory farms include headaches, skin conditions, exacerbation of asthma, shortness of breath, wheezing, excessive coughing and diarrhea. ¹⁵

Pesticide drift (spray drift) exposes agricultural workers, children playing outside, and wildlife and its habitat to toxic substances. Drift can also contaminate home gardens or surrounding food crops, causing illegal pesticide residues and/or plant damage. ¹⁶ Parks and playgrounds are affected. Its impact includes acute poisonings, resulting in serious illness and, in rare cases, death. Exposure to pesticide drift may cause birth defects, cancer, asthma, developmental disabilities and other long-term health effects.

¹² <http://pediatrics.aappublications.org/current.dtl>

¹³ http://www.epa.gov/ncer/publications/research_results_synthesis/ceh_report_508.pdf

¹⁴ <http://www.unc.edu/news/archives/mar99/wing2.htm>

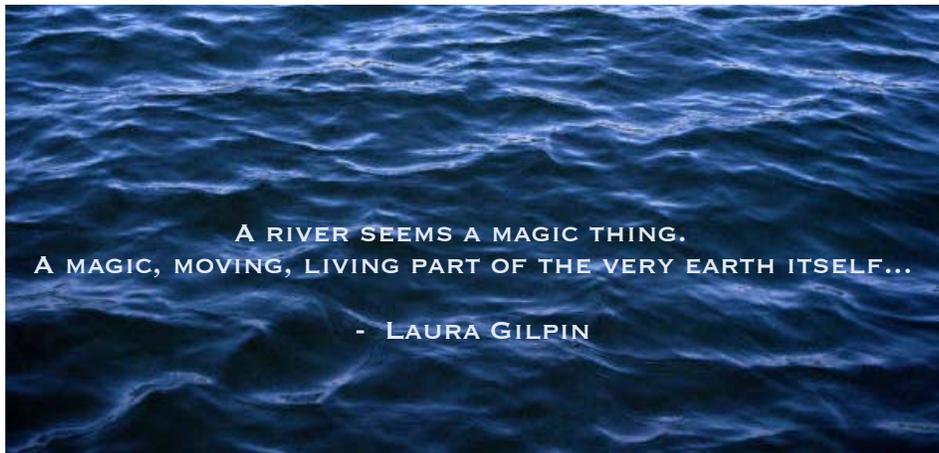
¹⁵ <http://www.nrdc.org/water/pollution/nspills.asp>

¹⁶ <http://www.epa.gov/opp00001/factsheets/spraydrift.htm#>

Pesticide drift can also harm the local environment by contaminating waterways, air, and soil and kill fish, birds and other wildlife.

Pesticide usage in suburban and urban areas is significant, at times exceeding application rates used in agriculture (United States Geological Survey: Pesticides in the Nation's Streams and Ground Water, 1992–2001. Circular 1291 Revised February 15, 2007.¹⁷ Pesticides and other contaminants in the air and soil have the potential to contaminate surface and ground water and food. Their impact extends throughout the entire independent web.

WATER POLLUTION



Freshwater pollution is caused by fecal waste from sewer overflow and run off from animal manure lagoons, chemicals, pesticides, petroleum, sediment, or even heated discharges. Polluted rivers and lakes are often unfit for swimming or fishing. Pollutants can leach into groundwater that feeds water wells, contaminating drinking water. Polluted water is unsafe to drink and poses serious health risks including gastroenteritis, salmonella infection, dysentery, shigellosis, hepatitis, and the parasitic disease, giardiasis.¹⁸

Several disease outbreaks related to drinking water have been traced to bacteria and viruses from waste from animal production farms.¹⁹ Nitrates, from animal waste, pesticides, and fertilizers, seep into groundwater. Drinking water contaminated with nitrates can increase the risk of potentially fatal blue baby syndrome, which decreases the oxygen carrying capacity of the blood. High levels of nitrates in drinking water near hog factories have also been linked to spontaneous abortions. These huge industrialized agricultural operations tend to be located in low-income areas with predominantly non-white populations.

Extensive agricultural use of antibiotics to promote food-animal growth and to reduce illness from severe overcrowding, raises significant concerns for humans, other species, and environmental health. These antibiotics enter the environment and the food chain in massive amounts contributing to the rise of antibiotic-resistant bacteria, making it harder to treat human and animal diseases. The uninsured, low income and those with chronic health conditions bear a disproportionate share of these negative

¹⁷ <http://pubs.usgs.gov/circ/2005/1291/pdf/circ1291.pdf> Accessed 09/12/09

¹⁸ <http://www.bae.ncsu.edu/programs/extension/publicat/wqwm/he393.html>

¹⁹ <http://www.nrdc.org/water/pollution/nspills.asp>

consequences as the number of effective antibiotic drugs decrease and their prices of the new ones increase.

Mercury contamination, much of which is generated by coal-fired power plants, has already affected many waterways in the United States. A dangerous neurotoxin, mercury causes injury to the brain and nervous system, resulting in conditions such as memory loss, speech difficulties, troubles with vision, and cardiovascular problems. Other toxic substances, especially heavy metals, are released also and present similar threats. Children are particularly vulnerable. Mercury contaminated fish consumption is especially harmful to children and women of child bearing age. Also at risk are those who fish routinely in urban and suburban waterways to augment their food budgets.

Human activity that contributes to water pollution has an impact on the beings of other species. Water pollution is particularly harmful to marine ecosystems. Sewage and other waste consume dissolved oxygen, decreasing the concentration available to fish. Polluted waters threaten wildlife habitat and biodiversity.

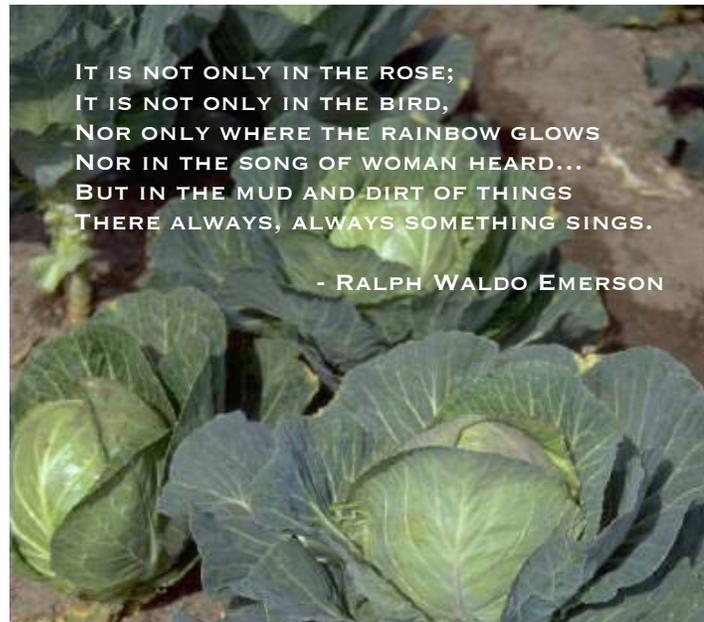
LAND AND SOIL POLLUTION

Dioxins are persistent and pervasive chemical compounds that eventually settle in soil and vegetation. The main sources of dioxins are waste incineration and the chemical industry. Highly insoluble in water, dioxins bind to soils or sediments, are resistant to leaching out, and degrade very

slowly.²⁰ They remain for decades.

Dioxins deposited onto grass can be ingested by livestock and enter the human food chain in milk and meat. Dioxins in aquatic sediments can enter the human food chain via fish. A wide range of toxicological effects have been observed in wildlife experimentally exposed to dioxins. They range from chronic to acute effects and include reduction in successful reproduction, growth defects, suppression

of the immune system and cancer. In humans, excessive exposure to dioxins may affect the heart, immune system, liver, skin, thyroid gland and the unborn child, and cause cancer.²¹



Soil contamination can arise from the rupture of underground storage tanks, application of pesticides, percolation of contaminated surface water to subsurface layer, oil and fuel dumping, leaching of wastes from landfills or direct discharge of industrial wastes to the soil. The most frequently implicated chemicals are petroleum hydrocarbons, solvents, pesticides, lead and other heavy metals. Soil contamination of this type is correlated with the degree and type of industrialization.

The developing fetus is most sensitive to dioxin exposure. The newborn, with rapidly developing organ systems, may also be more vulnerable to certain effects. Some individuals or groups of individuals may

²⁰ www.epa.gov/dioxin

²¹ <http://www.who.int/mediacentre/factsheets/fs225/en/index.html>

be exposed to higher levels of dioxins because of their diets (e.g. high consumption of fish in certain parts of the world) or their occupations (e.g. pulp and paper industry, incineration plants and hazardous waste sites).²²

Location factors expose some groups more often than others to these toxins, increasing the risk of acute and chronic conditions that are environmentally linked. The poor in both urban and rural areas risk greater exposure. Landfill activity and waste discharge occur more often where populations wield less political power and there is less advocacy. Children, who engage in frequent hand-to-mouth activities, are especially vulnerable to pollution in the soil.

WORKING CONDITIONS



Photo: Creative Commons, Jason Alegria, Rally for the Coalition of Immokalee Workers

Substandard living and working conditions of workers in the agricultural industry and the cruel treatment of animals on factory farms is well documented. Many agricultural workers in the U.S. are immigrants. Conditions are hazardous and pay is low. Their jobs expose them to toxic chemicals and dangerous machines. The workers may not have proper training or adequate protective equipment for handling the toxic chemicals required in industrial farming.

People of color have a documented history of disproportionate exposure to hazardous substances in the workplace. They are over-represented among the workers in laundry and dry cleaning, tobacco manufacture, fabric mills, smelters, hospitals, and farmwork. These industries expose workers to pesticides, toxic chemicals, pathogens, heat, mechanical hazards, noise, and dust. These exposures are often heightened by economic challenges and poor medical care.

Over the last several decades, Navajo miners have extracted over 4,000,000 tons of uranium from mines in the southwest United States. Many miners acquired and died from radiation-related illnesses including cancer, kidney disease, and other chronic illnesses resulting from prolonged radon exposure. Many children of miners have birth defects and other conditions linked with uranium mining. Some miners, unknowingly, hauled contaminated rocks and materials from local mines and mills to build homes for their families. Radon has been detected in many of these houses and they are being demolished.²³

Industrial workers are often exposed to both toxic chemicals and radioactivity at work. Both men and women workers suffer from these exposures which are implicated in cancers, infertility and other reproductive dysfunction, certain pregnancy-related injuries such as spontaneous abortion and stillbirth, cancer in children of exposed workers, and various genetically-related disorders.

²² <http://www.who.int/mediacentre/factsheets/fs225/en/index.html>

²³ <http://www.nytimes.com/2009/07/27/us/27navajo.html>

Women exposed to certain chemicals and other toxic substances tend to have lower birth weight and/or premature babies, and infants with health and developmental problems. Without access to good quality prenatal care, the health risks increase.

Those who live at or below the poverty level and those who have no or inadequate health-insurance coverage, often have limited access to quality health care. For many, daily life is focused on provision of the basics - food, clothing and shelter. Prevention of a future illness may not be a high priority - or an economic possibility.²⁴

LIVING CONDITIONS



*“I long, as does every human being,
to be at home
wherever I find myself.”*

- Maya Angelou

Segregated neighborhoods, “gentrification” (which, in itself, creates exposure to dust, asbestos, lead and other heavy metals), and other social phenomena contribute to the lack of safe, affordable housing in many areas, urban and rural. People with mental illness may be “dumped”, without adequate services, in these unhealthy, unsafe areas after release from treatment. Families with reduced resources often double or triple up creating conditions that increase the risk of such diseases as tuberculosis and food borne illnesses. When available housing is older, the risk of exposure to lead and asbestos is significantly increased. The resultant conditions can go undetected for years. Often, there is a waiting period for remediation. Economic restraints often prevent a move from an unhealthy, or unsafe, neighborhood.

In urban locations, especially in older cities, the neighborhoods that people with lower incomes can afford, are often those with little “green space” and few parks for exercise, play or gatherings. Safety may be a concern.

²⁴ <http://academic.udayton.edu/health/01status/98newbur.htm>

“Where people live and the kinds of food available close to them is likely to affect their ability to have a healthy diet,” says the chief of general internal medicine at the Tulane University School of Medicine.²⁵ Obtaining good quality, healthy food can be a challenge in some neighborhoods, especially where people rely on public transportation. Often there are fewer comprehensive grocery stores per capita located in these neighborhoods, and residents must rely on “convenience” stores for their basic food purchases.

“...High-income and mostly white neighborhoods have fewer fast food outlets per square mile than lower income or mostly black neighborhoods.” The link between fast food restaurants and black and low-income neighborhoods may contribute to the understanding of environmental causes of the obesity epidemic in these populations.²⁶

Scientists have made a connection between obesity in adolescents and fast food outlets.²⁷ The closer fast food outlets are to high schools, the higher the rate of obesity. Latino and female students were the most likely to gain weight.

Diet contributes to the incidence of Type 2 Diabetes in people of color. The incidence is much higher for some non-white groups than for whites. African Americans are 1.6 times more likely to have diabetes than non-Hispanic whites.²⁸ Native Americans (12.2% for those over 19 years of age) and Alaska adult natives²⁹ and Latinos (10.4%)³⁰ have disproportionately high rates of the disease and its related complications, including coronary artery, kidney, and eye disease, and death.

Income level, as well as genetics, obesity and diet and exercise, is strongly associated with high diabetes rates. A January 2006 New York Times article documents the positive relationship between Type 2 diabetes and poverty, indicating that in some impoverished areas of New York City, the rate of this disease is 16% - 20%.³¹

Over the past several decades, diet and level of physical activity have changed for most Americans, further jeopardizing those in these high risk groups. Diets have moved from traditional, whole foods to those that are highly processed and higher in fat and calories. Physical activity has decreased as lifestyles have moved from active to sedentary.

Access to good medical care with appropriate cultural and language support can be limited. Until recently, racial and ethnic differences have not been heavily weighed when providing diabetes-related health services to these groups.³²

“I think the great Mexican cuisine is dying because there are fast foods now competing, because there are supermarkets, and supermarkets can't afford to keep in stock a lot of these very perishable products that are used for fine Mexican cooking. Women are working and real Mexican cooking requires enormous amounts of time.”

- Alma Guillermoprieto

²⁵ <http://www.newsr.com/newsletters/Physician-Law-Weekly/2004-11-24/112220043331091PLW.html>

²⁶ [http://www.ajpm-online.net/article/S0749-3797\(04\)00139-4/abstract](http://www.ajpm-online.net/article/S0749-3797(04)00139-4/abstract)

²⁷ http://berkeley.edu/news/media/releases/2009/03/04_obesity.shtml

²⁸ <http://www.diabetes.org/communityprograms-and-localevents/africanamericans.jsp>

²⁹ <http://vtakaliseji.tripod.com/Vtlakaliseji/id2.html>

³⁰ http://www.ndep.nih.gov/media/FS_HispLatino_Eng.pdf

³¹ <http://query.nytimes.com/gst/fullpage.html?sec=health&res=980DE1D81F30F933A25752C0A9609C8B63>

³² <http://www.ahrq.gov/research/diabdisp.htm>

ENVIRONMENTAL JUSTICE FOR ALL: PRODUCT SAFETY IN OUR DAILY LIVES

Good fortune, adequate income and a certain socioeconomic status do not exempt one from exposure to pervasive, toxic substances. Population growth, globalization, and mushrooming industrialization, have made these compounds ubiquitous. Too often untested and unregulated, they are prevalent throughout the environment, affecting the health and safety of millions of human and non-human animals.

More than 82,000 synthetic chemicals are registered for use in manufacturing and industry. Only ten percent of those chemicals have been tested for their effects on human health. Of these, approximately 2,800 are considered “high-production volume” chemicals, or those produced in amounts of 1 million pounds or more per year in the United States³³ A few of the more visible are noted below.



PHTHALATES

Several phthalate compounds have caused reduced sperm counts, testicular atrophy, and structural abnormalities in the reproductive systems of male test animals, and some studies also link phthalates to liver cancer, according to the U.S. Center for Disease Control’s 2005 National Report on Human Exposure to Environmental Chemicals. Though the CDC contends the health hazards of phthalates to humans have not been definitively established, for some years, the U.S. Environmental Protection Agency has regulated phthalates as water and air pollutants, for example, have been identified by scientists as disruptors of the endocrine

system.³⁴ Called “plasticizers,” this group of industrial chemicals makes plastic more flexible or resilient. They are nearly ubiquitous in modern society, found in toys, food packaging, hoses, raincoats, shower curtains, vinyl flooring, wall coverings, lubricants, adhesives, detergents, nail polish, hair spray and shampoo.

Di(2-ethylhexyl) phthalate (DEHP), used extensively in plastics and being studied by several government research groups. The National Institutes of Health has listed it as a substance “reasonably anticipated to be a human carcinogen” in their Eleventh Report on Carcinogens, published by the National Toxicology Program³⁵

ANTIBACTERIAL HOUSEHOLD PRODUCTS

Antibacterial products were developed and have been successfully used to prevent transmission of disease-causing microorganisms among patients, particularly in hospitals. Since the mid 1990s, hundreds of new products containing antibacterial agents have been produced, and very heavily marketed, for use in healthy households. Research indicates that they offer no health benefit.



³³ <http://womenshealthandenvironment.info/article.php?list=type&type=69&printsafe=1>

³⁴ <http://www.ewg.org/chemindex/term/480>

³⁵ http://toxtown.nlm.nih.gov/text_version/chemicals.php?id=24

In fact, scientists report that the unnecessary use of these antibacterial agents has the potential to increase bacterial resistance and cause cross-organism resistance to antibiotics. The action of these antibacterial agents in the body can affect the immune system. Scientists suggest this might lead to a greater incidence of allergies in children. As with antibiotics, prudent use of these products is urged. Their designated purpose is to protect vulnerable patients.³⁶ Healthy households should avoid them.

In fact, use by the general population has created a dangerous public health threat. While antibiotics are critical to the treatment of bacterial infections, their random and unnecessary misuse have contributed to the creation of bacteria which have developed antibiotic resistance, creating a global health crisis.³⁷

CHEMICAL FRAGRANCES

The proliferation of synthetic chemicals in basic household cleaning agents and personal care products creates an additional health threats to vulnerable groups. Infants and children with immature immune systems and elders with weakened immune systems are particularly susceptible to harmful chemicals. In addition, people with asthma, allergies, migraines, compromised immune systems, and those who have been chemically injured, generally industrial workers, are particularly vulnerable. Many of these substances can be transmitted to the unborn, and some have been detected in breast milk.³⁸

Aggressive, compelling advertising campaigns attempt to convince us that these chemicals are both attractive - and essential - to a clean home and positive social relationships. Warnings about discomfort and illness associated to fragrance exposure are seldom forthcoming, putting chemically sensitive individuals at risk. Health problems associated with fragrance exposure for sensitive people can include asthma and other respiratory problems, debilitating head aches, neurological problems, and skin disorders. is unknown.³⁹ The long term environmental impact on water, habitat, and air quality is also unknown.

**WE ... COVENANT TO AFFIRM AND PROMOTE
THE INHERENT WORTH AND DIGNITY OF EVERY PERSON (AND BEING)
JUSTICE, EQUITY, AND COMPASSION IN HUMAN RELATIONS
THE GOAL OF WORLD COMMUNITY WITH PEACE, LIBERTY AND JUSTICE FOR ALL
AND
RESPECT FOR THE INTERDEPENDENT WEB OF WHICH WE ARE A PART**

Honoring the worth and dignity of each being on this planet, human and non-human, is the only way our interdependent web can sustain itself. As people of faith, Unitarian Universalists are called to work for the restoration of equity, compassion and balance among all the world's inhabitants. Those of us who have more resources or who, by virtue of who we are, benefit from our class or race, must commit ourselves to the work necessary to bring forth justice for the entire web of life. How fortunate we are to have our principles and purposes – and our consciences – to make this possible.

³⁶ http://www.cdc.gov/ncidod/eid/vol7no3_supp/levy.htm

³⁷ http://www.cdc.gov/ncidod/eid/vol7no3_supp/levy.htm

³⁸ <http://www.ewg.org/node/26272>

³⁹ www.epa.gov/iaq

QUESTIONS FOR REFLECTION AND DISCUSSION

- What changes, large or small, are you willing to make to create a healthier, more equitable home on Earth for all her inhabitants?
- What holds you back from going forward with these changes (habit, comfort, energy, fear, etc.)?
- What can your congregation offer as you begin to embrace these changes? And how can you help your congregation move forward?
- Are there environmental conditions in your community that pose health risks to specific groups? To specific species? To all in the area? In what ways can you or your congregation move to address them?

RESOURCES

In addition to the links provided in this green paper, a Greater Boston Physicians for Responsibility 2008 publication, "Environmental Threats to Healthy Aging" is available for free download at www.agehealthy.org. This is a good link to send to your local board of health commissioner. It could serve as a point for further communication about area environmental health and justice issues. The American Lung Association has excellent Fact Sheet information about air pollution and asthma, that they will allow you to pass on to officials. (Contact www.lungusa.org for permission.)

<http://www.ejrc.cau.edu/> Environmental Justice Resource Center at Clark Atlanta University, provides a variety of resources including links to several hundred wide-ranging groups working for environmental justice. Robert Bullard, long time environmental justice advocate is the director of the EJRC.

<http://www.epa.gov/oecaerth/environmentaljustice/> The EPA's site listing federal groups that work to develop, implement, and enforce environmental laws, regulations, and policies.

<http://www.greenamericatoday.org/> Green America works for a sustainable, just, and healthy world for all. Links here include environmental justice actions, sustainable practices, and healthy living information

<http://www.thegreenguide.com/> This National Geographic site offers information about healthy personal and environmental practices. Reviews cleaning products, air quality issues, risks from plastics and wide range of related topics.

<http://www.uusc.org/> The Unitarian Universalist Service Committee currently has campaigns that address water rights and climate change. Its work includes efforts toward environmental justice.

<http://nccecojustice.org/resources/> The National Council of Churches of Christ Eco-Justice Program site offers many excellent faith based resources that address a variety of eco-justice issues ranging from climate change to maintaining bodily health, from consumerism to saving wilderness areas.

<http://www.epa.state.il.us/medication-disposal/> Recommendations for environmentally safe (or less dangerous) disposal of pharmaceuticals.

http://www.ecofeminism.net/content/environmental_justice.htm Ecofeminism.net goes beyond gender to recommend books, authors, and environmental justice websites.

<http://www.cehn.org/cehn/resourceguide/molp.html> offers a resource guide on children's environmental health.

<http://www.iceh.org/> The Institute for Children's Environmental Health is working to ensure a healthy, just and sustainable future for all children. ICEH's primary mission is to foster collaborative initiatives to reduce and ultimately eliminate environmental exposures that can undermine the health of current and future generations. Resource page includes links to related articles and websites.

<http://www.womenshealthandenvironment.org/> Directed at women, this site offers ideas for reducing environmental contaminants and living a healthier lifestyle through changes at home and in the community.

<http://agehealthy.org> A Greater Boston Physicians for Responsibility 2008 publication, "Environmental Threats to Healthy Aging" is available for free download at www.agehealthy.org. This is a good link to send to your local board of health commissioner. It could serve as a point for further communication about area environmental health and justice issues.

www.lungusa.org The American Lung Association has excellent Fact Sheet information about air pollution and asthma.

<http://www.epa.gov/aging/resources/factsheets/weh/index.htm> Suggestions for reducing exposure to environmental pollutants are supplemented with a series of easy to read, downloadable fact sheets, available in 16 languages, and brochures. Additional links provided.

<http://www.nlm.nih.gov/medlineplus/nativeamericanhealth.html> The National Institutes of Health site that provides links to health issues, including environmental health risks, that affect Native Americans.

http://sis.nlm.nih.gov/pdf/APHA05_AfricanAmeri.pdf This NIH site provides information and resources specific to the environmental health issues that affect people who are African American.

<http://www.neefusa.org/health/pubs/index.htm> The National Environmental Education Foundation offers environmental health tools in Spanish (and English) at this site.

<http://www.nlm.nih.gov/medlineplus/hispanicamericanhealth.html> The NIH addresses health issues, including those that are environmentally linked. Additional useful links are provided.

<http://www.aahiinfo.org/english/asianAmericans.php> This site examines health issues of this diverse ethnic group and provides some links that address health disparities and environmentally linked health issues.

ACTIONS

Create a healthy and safe environment for the people who visit your congregation and for volunteers and staff. Church office workers face a variety of hazards. Sunday schools often use toxic art supplies that can be easily replaced. Sextons and landscape crews are frequently asked to work with hazardous substances. It's important for religious organizations to set a good example.

Examine the cleaning, personal hygiene and other products you routinely use at home. Dispose properly of those that are hazardous. Replace with safer products that minimize impact on health and the environment and that are not tested on animals. Dispose of unused medication properly.

Avoid home, church and commercial use of herbicides (weed killers) and pesticides.

Avoid routine home use of “antibacterial” products such as soaps, wipes, sprays, etc. Use them only as intended – to protect a physically compromised, vulnerable person from exposure to disease causing organisms.

Develop a fact sheet for your congregation to guide them in purchasing, using, and disposing of potentially toxic or hazardous materials. Contact your municipality or public health department for information about disposal procedures and sites in your area.

Encourage responsible contributions to shelters and pantries that minimize environmental toxins and pollutants.

Develop a religious education session(s) that addresses environmental justice.

Advocate for municipal hazardous waste education and collection for your locality.

Identify industries in your area that potentially place workers at undue risk. Contact unions, health centers, migrant organizations to find out how you can work with them to improve conditions.

Organize a walk through areas of your community that are locally labeled “wealthy”, “middle class”, “working class” and “poor”. Note differences in parks and green space, schools, lighting, and general atmosphere.

Compare the number of chain grocery stores in neighborhoods to number of “convenience” stores. Walk through the grocery stores and see the type and quality of foods there. Compare to convenience stores and to where you typically shop.

Establish a church policy that advocates cleaning products that minimize the introduction of toxic and potentially toxic substances into the environment.

Ask the church board to address the issue of chemical sensitivity for your congregation.

ADVOCATE FOR :

Better regulation for and monitoring of industrial agricultural operations, especially those that produce animals for food.

Stricter laws to address the issue of toxic pesticide drift.

Safe household water storage and monitoring

Better water resource management

Use of cleaner , safer fuels

Better management of toxic substances at home and in the workplace.

Better management of runoff and containment of sewage overflow.

ORGANIZE

People to speak at local and regional municipal hearings about securing a cleaner, safer environment for

the next generation.

Campaigns (phone, e-mail, US mail) to contact elected officials urging them to support legislation that promotes a cleaner, healthier environment,

Advocacy opportunities for improved regulation of industries that produce and emit toxic byproducts

**UU MINISTRY FOR EARTH THANKS VICKY TALBERT FOR SERVING AS THE EDITOR
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