Breast Cancer: The Environmental Connection

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Today in the United States we live in the midst of a cancer epidemic. One out of every three people will get some form of cancer and one out of four will die from it. Cancer is currently the second leading cause of death; it is estimated that by the year 2000 it will become the primary cause of death. It is now more than two decades since the National Cancer Act was signed, yet the treatments offered to cancer patients are the same as those offered fifty years ago: surgery, radiation and chemotherapy (or slash, burn and poison, as they are called bitterly by both patients and increasingly disappointed professionals). And in spite of sporadic optimistic pronouncements from the cancer establishment, survival rates for the three main cancer killers—lung, breast and colo-rectal cancer—have remained virtually unchanged.

In the sixties and seventies environmental activists and a few scientists emphasized that cancer was linked to environmental contamination, and their concerns began to make an impact on public understanding of the disease. In the eighties and nineties, however, with an increasingly conservative political climate and concerted efforts on the part of industries...
try to play down the importance of chemicals as a cause of cancer, we are presented with a new image of the disease. Now it is portrayed as an individual problem which can only be overcome with the help of experts, and then only if one has the money and know-how to recruit them for one's personal survival efforts. This emphasis on personal responsibility and lifestyle factors has reached absurd proportions. People with cancer are asked "why they brought this disease on themselves" and why they don't work harder at "getting well."

While people with cancer should be encouraged not to fall into victim roles and to do everything possible to strengthen their immune system (our primary line of defense against cancer), it seems that the socio-political and economic dimensions of cancer have been pushed completely out of the picture. "Blaming the victim" is a convenient way to avoid looking at the larger environmental and social issues that frame individual experiences. Here we want to talk about environmental links to cancer in general and to breast cancer in particular, the kinds of research that should be going on, why it's not happening and the political strategies needed to turn things around.

Extensive evidence exists to indicate that cancer is an environmental disease. Even the most conservative scientists agree that approximately 80% of all cancers are in some way related to environmental factors. Support for this view relies on four lines of evidence: 1) the dramatic differences in the incidence of cancer between communities; i.e. incidence of cancer among people of a given age in different parts of the world can vary by a factor of ten to a hundred; 2) changes in the incidence of cancer (either lower or higher rates) in groups that migrate to a new country; 3) changes in the incidence of particular types of cancer over time; and 4) the actual identification of specific causes of certain cancers (like the case of beta-naphthylamine, responsible for an epidemic of bladder cancer among dye workers employed at du Pont factories). Other well-known environmentally linked cancers are lung cancer (linked to asbestos, arsenic, chromium, bischloromethyl ether, mustard gas, ionizing radiation, nickel, polycyclic hydrocarbons — in soot, tar and oil — and of course, smoking); endometrial cancer, linked to estrogen use; thyroid cancer, often the result of childhood exposure to irradiation; and liver cancer, linked to exposure to vinyl chloride.

The inescapable conclusion is that if cancer is largely environmental in origin, it is largely preventable.

Our Environment is a Health Hazard
"Environment" as we use it here includes not only air, water and soil, but also our diets, medical procedures, and living and working conditions. That means that the food we eat, the water we drink, the air we breathe, the radiation to which we are exposed, where we live, what kind of work we do and the stress that we suffer — these are responsible for at least 80% of all cancers. For instance, under current EPA regulations as many as 60 cancer-causing pesticides can legally be used in the most commonly eaten foods. Some of these foods are allowed to contain 20 or more carcinogens, making it impossible to measure how much of the substances a person actually consumes. The 1958 Delaney clause which banned the deliberate addition to foods of any level of carcinogens, was revoked in 1988, depriving consumer groups of the possibility for legal action. As Rachel Carson wrote in Silent Spring in 1962, "This piling up of chemicals from many different sources creates a total exposure that cannot be measured. It is meaningless, therefore, to talk about the 'safety' of any specific amount of residues". In other words, our everyday food is an environmental hazard to our health.

Recently, a study on the trends in cancer mortality in industrialized countries has revealed that while stomach cancer has been steadily declining, brain and other central-nervous-system cancers, breast cancer, multiple myeloma, kidney cancer, non-Hodgkins lymphoma, and melanoma have increased in persons aged 55 and older. Given this context, it is not extreme to suspect that breast cancer, which has reached epidemic proportions in the U.S., may be linked to environmental ills. In 1992, estimates are that 180,000 women will develop breast cancer, and 46,000 will die from it. In other words, in the coming year nearly as many women will die from breast cancer as there were American lives lost in the entire Vietnam War. Cancer is the leading cause of death among women ages 35-54, with about a third of these due to breast cancer. Breast cancer incidence data meet three of the four lines of reason...
Fortunately, it now appears that the study story that is a direct result of women’s activism and pressures from women’s health groups across the country.

But even if the high fat-breast cancer correlation is established, it is unlikely to fully explain how breast cancer develops. The breast is rich in adipose cells, and carcinogens that accumulate in these fat tissues may be responsible for inducing cancer rather than the fat itself, or the fat alone. Environmental contamination of human breast milk with PCBs, PBBs and DDE (a metabolite of the pesticide DDT) is a widely acknowledged phenomenon. These fat-soluble substances are poorly metabolized and have a long half-life in human tissue. They may also interact with one another creating an additive toxic effect, and they may carry what are called “incidental contaminants”: compounds like dibenzofurans, dioxins, etc, each with its own toxic properties. (The most infamous of the dioxins [2,3,7,8-tetrachlorodibenzo-p-dioxin or TCDD] for instance, is considered to be the most toxic synthetic chemical known to science.)

Among the established effects of these substances are: liver dysfunction, skin abnormalities, neurological and behavioral abnormalities, immunological aberrations, thyroid dysfunction, gastrointestinal disturbances, reproductive dysfunction, tumor growth and enzyme induction. Serious concerns have been raised about the risks that this contamination entails for infants who are breast-fed. But what is outrageous in the discussion about human breast milk poisoning is that little or no mention is made of the possible effects on the women themselves, particularly since it is known that most of these substances have estrogenic properties (that is, they behave like estrogen in the body). It is as if the women, whose breasts contain these carcinogens, do not exist. We witness the paradox of women being made invisible, even while their toxic breasts are put under the microscope.

The Pesticide Studies

Very recently some scientists have at last begun to look at the chemical-breast cancer connection. In 1990 two Israeli scientists from Hebrew University’s Hadassah School of Medicine, Elihu Richter and Jerry Westin, reported a surprising statistic. They found that Israel was the only country among 28 countries surveyed that registered a real drop in breast cancer mortality in the decade 1976-1986. This was happening in the face of a worsening of all...
known risk factors, such as fat intake and age at first pregnancy. As Westin noted, "All and all, we expected a rise in breast cancer mortality of approximately 20% overall, and what we found, was that there was an 8% drop, and in the youngest age group, the drop was 34%, as opposed to an expected 20% rise, so, if we put those two together, we are talking about a difference of about 50% which is enormous."

Westin and Richter could not account for the drop solely in terms of demographic changes or improved medical intervention. Instead, they suspect it may have been related to a 1978 ban on three carcinogenic pesticides (benzene hexachloride, lindane, and DDT) that heavily contaminated milk and milk products in Israel. Prior to 1978, Westin said, "...at least one of them (pesticides) was found in the milk here at a rate 100 times greater than it was in the US in the same period, and in the worst case, nearly a thousand times greater." This observation led them to hypothesize that there might be a connection between the decrease in exposure following the ban and the decrease in breast cancer mortality.

The pesticides that were contaminating Israeli milk are known as inducers of a superfamily of enzymes called the cytochrome P450 system. These enzymes can promote cancer growth, weaken the immune system, and destroy anti-cancer drugs. Westin and Richter believe that these induced enzymes could have increased the virulence of breast cancer in women and therefore increased the mortality rates. They speculated that when the pesticides were removed from the diet, there was a situation of much less virulent cancer and the mortality from breast cancer fell.

Westin and Richter are convinced that there is a critical need to increase awareness about environmental conditions and cancer. Health care clinicians, for example, could play an important role in the detection of potential exposures to toxic chemicals that might be missed in large studies. "It's a question of a mindset and of programming and training and activating the medical profession and the health professions to keep their eyes and ears open for such possible associations," said Richter. "This is not necessarily expensive. It's a question of awareness and professional commitment."

This is a refreshing view since it encourages individual physicians to ask questions about work environments, living quarters, dietary habits, etc., that could provide important clues about the cancer-environment connection. Epidemiological studies, as currently conducted, are not that sensitive in identifying low levels of risk, and the long latency periods of some cancers may not be adequately taken into consideration. Needless to say, the relevant questions are not usually asked of cancer patients.

Other studies are beginning to directly measure chemical residues in women who have breast cancer compared to those who don't. Dr. Mary Wolff, a chemist at New York's Mount Sinai School of Medicine recently completed a pilot study with Dr. Frank Falk (then at Hartford Hospital in Hartford, Connecticut) that has just been published in *The Archives of Environmental Health.* In this case-controlled study, Falk and Wolff found that several chemical residues from pesticides and PCBs were elevated in cases of malignant disease as compared to non-malignant cases.

The study involved 25 women with breast cancer and the same number of women who had biopsies but did not have breast cancer. The results showed differences significant enough to interest the National Institute for Environmental Health Sciences which will fund a larger study, a collaboration between Wolff and Dr. Paolo Toniolo, an epidemiologist at New York University School of Medicine and one of the authors of a study conducted in Italy on the role of diet in breast cancer.9 Wolff and Toniolo's new study will look at the level of DDT and its metabolites in the blood samples of 15,000 women attending a breast cancer screening clinic in New York, and it will take into consideration reproductive factors, dietary habits, family history, and hormone levels in the body. This study could provide valuable data clarifying any link to chemical exposures and stimulating further research.

In the U.S., levels of pesticide residues in adipose tissue have been decreasing since the 1970s (following the banning of DDT and decreased use of other carcinogenic pesticides) while the breast cancer rate continues to rise. This observation would seem to contradict the pesticide hypothesis. However, Toniolo points out that the chemicals could act differently at different exposure levels; they are unlikely to act alone; and time of exposure may be important. For example, if a child is exposed during early adolescence, when breast tissue is growing rapidly, the result may be different than exposure later in life.

**Radiation and Mammography**

Another area that demands urgent investigation is the role of radiation in breast cancer development. It is widely accepted that ionizing radiation causes breast cancer at high doses, while low doses are generally regarded as safe. Questions remain, however, regarding the shape of the dose-response curve, the length of the latency period and the importance of age at time of exposure. These questions are of great importance to women because of the emphasis on mammography for early detection. There is evidence that mammography screening reduces breast cancer deaths in women age 50 or older. However, Dr. Rosalie Bertell, (director of the International Institute of Concern for Public Health, author of *No Immediate Danger: Prognosis for a Radioactive World* (Book Publishing Co., TN, 1985) and well known critic of the nuclear establishment) raises serious questions about mammography screening.

In a paper entitled, "Comments on Ontario Mammography Program"10 Bertell criticized a breast cancer screening program planned by the Ontario Health Minister in 1989. Bertell argued that the program, which would potentially screen 300,000 women, was a plan to "reduce
breast cancer death by increasing breast cancer incidence." She presented an independent risk-benefit assessment of the program and concluded that even if breast cancer deaths were reduced, only a very small number of the lives saved would be exclusively due to the screening. The overwhelming majority of the cancers could have been detected by other means, including monthly self-examination. She added that a significant number of women (163) would have unnecessary breast surgery due to the program and a very high number (10,000) would have retests because of false positive mammographies. Despite these criticisms the program was put into place and is now ongoing.

Bertell's critique of mammography is supported by a recent multi-million dollar Canadian study on 90,000 women that looked at cancer rates between 1980 and 1988. The study has yet to be released, but preliminary results show that for women aged 40 to 49, mammograms have no benefits and may indeed harm them: 44 deaths were found in the group that received mammograms and 29 in the control group. The study also suggests that for women aged 50 to 69, many of the benefits attributed to mammography in earlier studies "may have been provided by the manual breast exams that accompanied the procedure and not by the mammography," as Bertell noted in her paper. Not surprisingly, the study has been mired in controversy. As study director Dr Anthony Miller remarked, "I've come up with an answer that people are not prepared to accept."

According to Bertell, the present breast cancer epidemic is a direct result of "above ground weapons testing" done in Nevada between 1951 and 1963, when two hundred nuclear bombs were set off and the fallout dispersed across the country. Because the latency period for breast cancer peaks at about 40 years, this is an entirely reasonable hypothesis.

Other studies have looked at the effect of "low-level" radiation on cancer development. A study investigating the incidence of leukemia in southeastern Massachusetts found a positive association with radiation released from the Pilgrim nuclear power plant. (The study was limited to cases first diagnosed between 1978 and 1986.) In adult cases diagnosed before 1984, the risk of leukemia was almost four times higher for individuals with the greatest potential for exposure to the emissions of the plant. Other types of cancer take a greater number of years to develop, and there is no reason to assume that excessive radiation emission was limited to the 1978-1986 time frame. In other words, it is entirely possible that as follow up studies continue, other cancers, (including breast cancer) will also show higher rates.

In the last few years, questions have also arisen about the possible biological effects of electromagnetic fields. Studies looking at EMF and childhood leukemia are inconclusive, but two studies on telephone company and electrical workers have raised the possibility of a connection between EMF exposure and breast cancer in males. Genevieve Matanoski of Johns Hopkins University studied breast cancer rates in male New York Telephone employees between 1976 to 1980, and observed a dose-response relationship to cancer. There were two cases of breast cancer, a very high number for such a small group. Breast cancer in men is rare; in the U.S. the annual incidence is 1 in 100,000, as compared to 110 in 100,000 for women.

Another study, by Paul Demers and others at the Hutchinson Cancer Research Institute in Seattle, Washington, also found a strong correlation between male breast cancer and jobs that involved exposure to EMFs. They reported that "... men whose jobs involved some exposure to EMFs were nearly twice as likely to have breast cancer as men with no exposure, and men likely to have the highest exposures—electricians, utility linemen, and power plant workers — had six times the risk of developing breast cancer as men who worked in occupations with no EMF exposure," (as quoted by Dr. Robert Pool in Science). Individuals exposed at least 30 years prior to diagnosis and earlier than age 30 were at higher risk than other EMF-exposed workers. According to Dr. Robert Pool, EMFs can produce changes in the cellular metabolism, including changes in hormone production, protein synthesis and ion flow across cell membranes.

Ironically, most of the studies on EMF exposure have been done on men, while EMFs are generated by household appliances and video display terminals largely used by women.

The Surveillance Theory
Current theory supports the concept that cancerous mutations are a common phenomenon in the body of normal individuals and that the immune system intervenes before mutated cells can multiply. Known as the "surveillance" theory of cancer, the basic premise is that cancer can develop when the immune system fails to eliminate mutant cells. Carcinogenic mutations can be induced by radiation or chemicals, for instance, and if immunological competence is reduced at a critical time, the mutated cells can thrive and grow.

Given the apparent importance of the immune system in protecting us from cancer, we ought to be concerned not only with eliminating carcinogens in our environment, but also with making certain that our immune systems are not under attack. Recent evidence that ultraviolet radiation depresses the immune system is therefore particularly ominous. At a hearing on "Global Change Research: Ozone depletion and Its Impacts" held this past November by the Senate Committee on Commerce, Science, and Transportation, a panel of scientists reported that ozone depletion is even more serious than previously thought.

According to the data, the ozone layer over the U.S. is thinning at a rate of 3-5 percent per decade, resulting in increased ultraviolet radiation which "will reduce the quantity and quality of crops, increase skin cancer, suppress the immune system, and disrupt marine ecosystems" (our emphasis). (The report also states that a 10 percent decrease in ozone will lead to approximately 1.7 million additional cases
of cataracts per year, world-wide, and at least 250,000 additional cases of skin cancer. As the writers make chillingly clear, since this is happening literally over our heads, there is no place we can run.

Dioxin, (an extremely toxic substance that has been steadily building up in the environment since the growth of the chlorinated chemical industry following World War II) can disrupt the immune system.16 "Free radicals" created by exposure to low-level radiation can also cause immune system abnormalities.17 In other words, our basic mechanisms of defense against cancer are being weakened by the chemical soup in which we are immersed.

It follows that an intelligent and long range cancer prevention strategy would make a clean environment its number one priority. Prevention, however, has a low priority in our national cancer agenda. In 1991, only 17% (293 million) of the total budget of the NCI was spent on primary prevention. Research on the cellular mechanisms of cancer development, where much of the "prevention" effort goes, does not easily get translated into actual prevention strategies. With respect to breast cancer, of $92.7 million allotted in 1991 for breast cancer research, only $11 million was spent on prevention, a shockingly low figure for a disease that represents more than 15 percent of cancers diagnosed each year.18

In his 1989 exposé of the cancer establishment, The Cancer Industry, Ralph Moss writes that until the late '60s the cancer establishment presented the view that "cancer is ... widely believed to consist of a hereditary, and therefore genetic, problem." That line of thinking is still with us, but with added emphasis on the personal responsibility we each have for our cancers (smoking and diet), and little or no acknowledgment of the larger environmental context. In a chapter appropriately named "Preventing Prevention" Moss provides an inkling of why this is so.

The close ties between industry, the professional investors (bankers, stockbrokers, venture capitalists), Board members included top officials of drug companies — Squibb, Bristol-Myers, Merck — and influential members of the media — CBS, the New York Times, Warner's communications, and Reader's Digest — as well as leaders of the $55 billion cigarette industry.

Moss's research leaves little doubt about the allegiances of the cancer establishment. Actual cancer prevention would require a massive reorganization of industry, hardly in the interest of the industrial and financial elites. Instead of preventing the generation of carcinogenic and toxic waste, the strategy adopted by industry and government has been one of "management." But as Barry Commoner, director of the Center for the Biology of Natural Systems at Queens College, in Brooklyn, New York, put it rather succinctly, "The best way to stop toxic chemicals from entering the environment is to not produce them." 19

Instead, the latest "prevention" strategy for breast cancer moves in a completely different direction. A trial has been approved that will test the effect of a breast cancer drug (an anti-estrogen, tamoxifen) in a healthy population, with the hope that it will have a preventive effect. The trial will involve 16,000 women considered at high risk for breast cancer and will be divided into a control group and a tamoxifen group. The National Women's Health Network (a national public-interest organization dedicated solely to women and health) is unequivocal in its criticism of the trial. Adrienne Fugh-Berman, a member of the Network Board, wrote in their September/October 1991 newsletter, "In our view the trial is premature in its assumptions, weak in its hypothesis, questionable in its ethics, and misguided in its public health ramifications. The criticisms center around the fact that tamoxifen causes liver cancer in rats, liver changes in all species tested, and that a number of endometrial cancers have been reported among tamoxifen users. Berman points out that approving a potent, hormonal drug in healthy women and calling that "prevention" sets a dangerous precedent. This drug-oriented trial symbolizes, in a nutshell, the paradoxes of short-sighted cancer prevention strategies: they use more drugs to counteract the effect of previous exposures to drugs, chemicals or other carcinogenic agents. It is a vicious circle and one that will not be easily broken.

Grassroots Pressure is Essential

In the mid-eighties, women living on Long Island learned that Nassau and Suffolk county had a breast cancer rate 13-14% higher than the state average (since that time statistics indicate an even more dramatic "hot spot" for breast cancer in Nassau County). When journalist Joan Swirsky learned that a major study would be undertaken to look for associations, she was at first pleased, but in no time found herself in the role of activist, as she discovered flaws in the study design.

From her column in The Women's Record, Swirsky noted that the original study (a joint effort of the state Health Department and SUNY-Stoneybrook) "omitted at least two important environmental variables — the source of drinking water and proximity to toxic dumpsites."

Because of the questions she and other women raised, the study was redesigned twice. When it was finally released in 1991, it was inconclusive but indicated that environmental factors do not account for Long Island's high breast cancer incidence. Instead, residents were told, their cancers were probably attributable to affluence, or diet and that no further research was called for.

Partly in response to the study, a group of Long Island breast cancer survivors and their supporters formed a group called "One in Nine." (The name was based on Nassau County's breast cancer rate which has since become the national average.) Women were enraged at being told that this was "the end" of the issue and met several times with the NY Department of Health, pointing out that their counties are actually areas of mixed income, and at the same time, neighboring affluent counties have not been found to have particularly elevated breast cancer rates. Marie Quinn, founder of the group commented, "Is water studied enough?... Electromagnetic fields, dishes that take in TV and radio waves?...how about homes that have been built on top of waste dumps that have been closed...areas where there were factories years ago, [and] dumped..."
A Woman's Cancer Agenda
Demands to the NCI and the U.S. Government

The Women's Community Cancer Project of Boston/Cambridge, MA has compiled the following list of demands, to be presented to the National Cancer Institute and the U.S. government. Demands 1-4 refer to research; 5-10 refer to public policy.

1. Increase funding, through new allocations, for research on cancers of the female reproductive organs: breast, cervical, uterine, vaginal and ovarian, to whatever level is necessary to allow for meaningful research resulting in decreased incidence and decreased mortality among women of all races, ethnic groups and social classes. Increase funding, through new allocations, for research focused on identifying the causes of the recent 12 - 13% increase in childhood cancer incidence, which could be due to toxic exposures to either or both parents.

2. Fund research, through new allocations, on all other types of cancer with an emphasis on similarities and differences between men and women, and between women of different races, ethnic groups and social classes, in the causes and course of the disease and the effectiveness of treatment.

3. Develop an integrated and interdisciplinary approach to research that takes into account the whole individual and her social and political context, not just the cancer cells in her body. Study the interrelationship between the immune system, the neuroendocrine system, and cancer, and the importance of support networks in enhancing the length and quality of life.

4. We demand decision making power for women, minorities, and the poor, including those with cancer and at high risk for cancer, in all NCI decision-making bodies, especially the councils which decide research funding allocations.

5. Pass the Women's Health Equity Act (H.R. 1161, S. 514, 1991), a set of legislative initiatives drafted by the Congressional Caucus for Women's Issues concerned with research, services and prevention related to women's health.

6. Enact a comprehensive and universal national health plan that will allow access to conventional health care and alternatives for people of all socioeconomic groups. In the meantime, enact legislation to allow for health insurance coverage of experimental cancer treatments, and end insurance discrimination against people with cancer.

7. Enforce the Americans With Disabilities Act which was signed into law on July 13, 1990 as it pertains to employment discrimination against people with cancer.

8. Direct research to focus on prevention, the environmental causes of cancer and new, non-toxic therapies. Make the identification and removal of all carcinogens from our environment an all-time high priority. Ban the production and dumping of toxic wastes.

9. Ban cigarette advertising (as has been done in Canada, France and other countries). Ban the export of U.S. tobacco.

10. Implement the recommendations of a recent report from the Office of Technology Assessment, Congress of the United States, 1990 (Unconventional Cancer Treatments, G.P.O. #052-003-01207-3), describing unconventional cancer treatments, such as herbal substances, vitamins and dietary changes, and offering suggestions to the cancer establishment, such as providing funds and expertise for the evaluation of these treatments. The present highly polarized situation between mainstream and alternative treatments is not in the best interests of people with cancer.

toxic materials.... I don't think that these things have been examined closely enough."

Swirsky and members of One in Nine are now demanding that other unexplored variables (such as electromagnetic fields, actual chemical levels in drinking water, hormones in meat, observed "clusters" etc.) be considered. The State Dept. of Health recently "promised" to find a way to address these concerns. Swirsky's criticisms were instrumental in helping other women to speak out and to try to make public officials accountable for their actions.

Cancer, Poverty, Politics

It is ironic that women in Long Island are being told that their high breast cancer rates are due to their affluent lifestyle, when breast cancer is on the rise (both incidence and mortality) among African-American women, hardly an "affluent" population. The African American Breast Cancer Alliance of Minnesota, organized in October of 1990, has noted this steady increase and the limited efforts that have been made to reach African-Americans with information and prevention strategies. People of color often live in the most polluted areas of this country, where factories, incinerators, garbage and toxic waste are part of the landscape. Native American nations are particularly targeted by waste management companies that try to take advantage of the fact that "because
of the sovereign relationship many reservations have with the federal government, they are not bound by the same environmental laws as the states around them."

Poverty and pollution go hand in hand. The 1988 Greenpeace report Mortality and Toxics along the Mississippi River showed that the "total mortality rates and cancer mortality rates in the counties along the Mississippi River were significantly higher than in the rest of the nation's counties" and that "the areas of the river in which public health statistics are most troubling have populations which are disproportionately poor and black". These are also the areas that have the greatest number of toxic discharges. Louisiana has the dubious distinction of being the state with most reported toxic releases — 741.2 million pounds a year. Cancer rates in the Louisiana section of the "Chemical Corridor" (the highly industrialized stretch of river between Baton Rouge and New Orleans) are among the highest in the nation. Use of the Mississippi river as a drinking water source has been linked to very high rates of cancer in Louisiana. The rates of cancer of the colon, bladder, kidney, rectum and lung all exceed national averages.24

Louisiana Attorney General William J. Guste, Jr., has criticized state officials who claimed that people of color and the poor naturally have higher cancer rates. You can't "point out race and poverty as cancer factors" said Guste, "without asking if poor people or blacks... reside in less desirable areas more heavily impacted by industrial emissions."25

It follows that African-American women, living in the most contaminated areas of this country, would indeed be showing an disproportionate increase in breast cancer incidence.26 However, widespread epidemiological studies to chart such correlation have not been undertaken. For instance, given the evidence implicating pesticides in the development of breast cancer, it would seem imperative to study migrant (and other) farm workers who have been exposed to such chemicals.

Like One in Nine, other women's groups around the country have started organizing to fight the breast cancer epidemic. A National Breast Cancer Coalition was founded in 1991. Its agenda is threefold: to increase the funding for research, organize and educate. All the recently organized groups consider prevention a priority, and one of their tasks will undoubtedly entail defining what effective prevention really means. In Massachusetts, the Women's Community Cancer Project, which defines itself as a "grassroots organization created to facilitate changes in the current medical, social, and political approaches to cancer, particularly as they affect women," has developed a Women's Cancer Agenda to be presented to the federal government and the NCI (see box). Several of its demands address prevention and identification of the causes of cancer. The group will be asking for endorsements of its agenda from organizations and individuals working in the areas of environmental health, women's rights and health care reform. This effort will provide a networking and organizing tool bringing together different constituencies in an all out effort to stop the cancer epidemic.

Cancer is and needs to be seen as a political issue. The women's health movement of the '70s made that strikingly clear and gave us a roadmap to the politics of women's health. In the '80s, AIDS activists have shown the power of direct action to influence research priorities and treatment deliveries. In the '90s, an effective cancer prevention strategy demands that we challenge the present industrial practices of the corporate world, based solely on economic gains for the already powerful, and that we insist on an end to the toxic discharges that the government sanctions under the guise of "protecting our security." According to Lenny Siegel, research director of the Military Toxic Network, the Pentagon has produced more toxic waste in recent years than the five largest multinational chemical companies combined, between 400,000 and 500,000 tons annually.

Indeed, if we want to stop not just breast cancer, but all cancers, we need to think in global terms and build a movement that will link together groups that previously worked at a respectful distance. At a world-wide level, the Women's World Congress for a Healthy Planet that met in Miami this past November (attended by over 1500 women from 92 countries from many different backgrounds and perspectives), drafted a position paper, Agenda D1, that will be presented at the 1992 United Nations Earth Summit conference in Brazil.27 It articulates women's positions on the environment and sustainable development that stress pollution prevention, economic justice and an end to conflict resolution through war and weapons pro-

Many thanks to the women of the Women's Community Cancer Project in Cambridge for their help and support. Rita Arditti is a biologist, a woman with breast cancer, and a founding member of the Project. She is also an editor of Issues in Reproductive and Genetic Engineering — A Journal of International Feminist Analysis. Tatiana Schreiber is the editor of the Resist newsletter and a freelance journalist. We welcome comments from our readers, news about grassroots groups organizing against cancer and ideas on how to build and strengthen the movement. Please write to us c/o Resist.

ENDNOTES


Workers’ Superfund to guarantee income and training for workers in transition from nuclear and fossil fuels to renewables. Greens brought these goals into official Sun Day events when possible, or organized counter-events.

Greens also planned actions at nuclear power plants, uranium mines, nuclear waste transportation routes and dump sites and state energy offices on the anniversary of the Chernobyl disaster. Resist’s recent grant was used to support outreach and coordination for the Solar Power through Community Power events planned by the Greens.


9. Toniolo Paolo, Elio Riboli, Fulvia Prota, Martine Charrel and Alberto P.M. Cappa, “Calorie Providing Nutrients and Risk of Breast Cancer.” Journal of the National Cancer Institute 81:278-286, 1989. This study linked animal fat to the incidence of breast cancer. This finding could support the pesticide link in fact the pesticides have concentrated in the animal fat.

10. The paper can be obtained by writing to Dr. Rosalie Bertell, President, International Institute of Concern for Public Health, 830 Bathurst Street, Toronto, Ontario, Canada, MSR 3G1.


13. The NCI grouped the following cancers according to how closely their incidence was associated with exposure to radiation: Group I: leukemia, multiple myeloma, Hodgkin’s disease; Group II: breast and lung cancer and Group III: bone, brain and liver cancer, lymphomas. With respect to latency, the NCI presented the following time chart: possible leukemia, after two years; possible leukemia and other cancers, after ten years. Commentary by the Duxbury Nuclear Affairs Committee presented to the Duxbury Board of Selectmen relative to the Department of Public Health Recommendations regarding the Southeastern Massachusetts Health Study.


18. Figures were obtained from the budget office of the National Cancer Institute.


20. Quoted in Greenpeace Toxics, non-dated two page article entitled “US Industry’s Toxic Chemical Dependency: Causes, Effects and the Cure.” For more information, write to: Greenpeace, 1436 U Street, NW, Washington DC 20000, Tel (202) 462-1177.


26. For Black women under the age of 50 there has been a 22.7% increase in the period 1973 - 1987 as compared with a 10.4% increase for white women. After the age of 50, the increases are roughly similar, 30.2% for white women and 29.1% for Black women. Cancer Statistics Review, 1937-1987. Editors: Ries L.A., Hankey B.F. and Edwards B.K., US Dept. of Health and Human Services. NIH Pub.# 90-2789.

27. For a copy of this document write the Women’s Environment and Development Organization. 845 Third Avenue, 15th floor, New York, NY, 10022. Tel. (212) 759-7982. Ask for the Official Report of the Congress. $5 per copy, bulk rates available.

28. For a copy of this statement, write to Samuel S. Epstein, M.D. Professor of Occupational and Environmental Medicine, School of Public Health, University of Illinois, Chicago, Illinois, 60680.
In each issue of the newsletter we highlight a few recent grants made to groups around the country. In this issue we include grants made for health and environmental projects. The information in these brief reports is provided to us by the groups themselves. For more details, please write to them at the addresses included here.

Women and Cancer Walk, 3543 18th St., Box 1, San Francisco, CA 94110.

The Women and Cancer Walk (which took place May 9th, 1992, after this issue went to press - we hope it was great!!) was organized in the San Francisco area by a coalition of community groups representing Asian, Latina, African-American, and Native American women, as well as low-income women and lesbians. The groups had been providing advocacy and support services for women with cancer and other health problems, but realized there was no public vehicle for raising funds and awareness about the social and political issues surrounding women’s health. Building on media interest in breast cancer, an ad hoc group came together to discuss a walk. To cut down on overhead costs and take advantage of prior experience, the group decided to organize as a contingent within the already existing Human Race, a 10K walk-a-thon for non-profit groups, sponsored by The Volunteer Center. (Participants can run, walk, or wheel...) The Women and Cancer Walk was conceived of as a way to raise money and visibility for community-based health organizations serving underfunded and underserved populations of women. The focus on women and cancer was chosen because, given the incidence of cancer, and the death toll, insufficient attention has been focused on women’s research, education, prevention, and treatment needs. For example, many women’s cervical and uterine cancers go undetected because of lack of access to pap tests and exams, and lack of information. Biases of gender, race, class and sexual orientation are often to blame. The coalition sponsoring the walk wants to see political changes that would influence research priorities.

The coalition (including the Bay Area Black Women’s Health Project, the National Latina Health Organization, and the Women’s Cancer Resource Center) supports access to detection and treatment services for all women, and supports abortion rights, disability rights, and lesbian and gay rights. Resist’s recent grant was used to publicize the event and sign up walkers.

The Greens/Green Party USA, P.O. Box 30208, Kansas City, MO 64112.

The Greens, founded in 1984, work to support the organization of strong community-based groups oriented toward an independent politics based on ecology, grassroots democracy, social justice and peace. In 1991, the Greens decided to move from being a loose network of local groups to a national independent political organization with national policies, actions, and a structure for follow-through. The new name (Greens/Green Party USA) reflects a commitment to a movement-building politics of grassroots organization, public education and direct action. The Greens now have 28 members elected to local offices, but most Green action remains “extra-electoral,” from demanding a shift from military to social spending to fighting trash incinerators. There are now 312 local Green groups, and a national Green Action Plan for 1992. The Action Plan focuses on three projects: Solar Power through Community Power, Detroit Summer, and 500 Years of Dignity and Resistance.

Detroit Summer will bring young people in Detroit and around the country together to work on social and ecological reconstruction projects (as defined by community groups in Detroit). The goals of the project are to focus attention on the challenge of rebuilding cities, to give support to community groups struggling to meet this challenge, and to engage young people of diverse backgrounds in this work. Young people will spend two weeks in Detroit working with citizen organizations to rebuild homes, attend workshops and cultural events, plant urban gardens, restore neighborhoods, and learn more about Detroit’s rich cultural and ethnic history.

The 500 Years project consists of support to Native American groups as they respond to the 500th anniversary of Columbus’ “discovery” and the European invasion. A national focus is supporting the Peace Pilgrimages that will converge on October 12th at the Nevada Test Site at the invitation of the Western Shoshone Nation calling for a Comprehensive Test Ban and an end to nuclear war on native peoples around the world.

The Solar Power through Community Power project involved nationally coordinated actions on Sun Day/Earth Day (April 22nd) and the Chernobyl Anniversary (April 25-26th). The basic message the Greens planned to convey is that our country’s energy policy must be turned toward efficient use of solar-based renewables. Citizens need to take power away from the global energy corporations, private utilities, and autocratic government agencies and place it in the people’s hands through ownership and control of energy resources, utilities, planning and policy. Greens supported “official” Sun Day goals but planned to add the concepts of: No Nukes, Democratic Public Power, and a...