

**WOMEN'S CONSULTATION MEETING ON HEALTH
AND THE ENVIRONMENT WITHIN THE GREAT
LAKES BASIN**

Goes in
Great
Lakes LR

May 28th and 29th, 1993
University of Guelph

Conference Report

Co-sponsored by:

**Great Lakes Health Effects Program
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&

Ontario Farm Women's Network

Prepared by

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This report reflects the views and comments made by participants at the consultation meeting, and does not reflect the official view of any one individual or organization.

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TABLE OF CONTENTS

1.0	INTRODUCTION AND OVERVIEW	1
2.0	PERCEPTIONS AND EXPECTATIONS	2
3.0	EXCHANGING INFORMATION ON HUMAN HEALTH AND ENVIRONMENTAL ISSUES	3
3.1	The Role of Science in Health and Environmental Action	3
3.2	The Food Chain and Food Consumption	4
3.3	Sustainable Agriculture	5
3.4	The Environment and Reproductive Health	7
3.5	Endometriosis: A Possible Role for Industrial Toxins	8
3.6	Nuclear Plants and Human Health Effects	9
3.7	Cancer Research and Findings	9
3.8	Environmental Sensitivities	10
4.0	DEFINING FUTURE ACTIONS	12
4.1	The Function and Purpose of the Women's Consultation	12
4.1.1	Public Awareness and Public Education	12
4.1.2	Recommendations for Action	12
4.2	The Next Meeting	13
4.2.1	The Planning Committee	13
4.2.2	Specific Suggestions	13
4.2.3	General Suggestions	13
4.3	The Role of Public Health Professionals	14
5.0	EVALUATION AND GENERAL COMMENTS	15

APPENDIX A: List of Participants

APPENDIX B: Criteria for Participants

APPENDIX C: Agenda

1.0 INTRODUCTION AND OVERVIEW

The Great Lakes Health Effects Program (GLHEP) and the Ontario Farm Women's Network (OFWN) sponsored a women's consultation meeting on human health and the environment on May 28th and 29th in Guelph, Ontario. In attendance were 25 participants representing a variety of environmental organizations, women's interest groups, community and health action groups, and other interest groups (see List of Participants - Appendix A). Participants were active in the Great Lakes Basin (see Criteria for Participants - Appendix B).

The objectives of the consultation meeting were:

- To increase knowledge and understanding of the critical link between the Great Lakes environment and human health.
- To foster information sharing between represented organizations and researchers.
- To discuss the level of public awareness and public perception of women's health and environment issues.
- To provide an opportunity for participants to network and to share resources.
- To define and determine actions, clarify positions and partnerships for the future.

The consultation meeting was uniquely designed to address the specific concerns and needs of various organizations involved in health and environmental issues as they affect women. In 1992-93, the Consultation Unit of the Great Lakes Health Effects Program identified and established a network of groups concerned about health and environmental issues as they affect women and set about to provide required information and follow-up partnership activities. That process and initial effort are captured in GLHEP's document entitled ***Results of Consultations on Women's Health and the Environment in the Great Lakes Basin***. On the basis of these earlier individual consultations, the agenda for the May meeting was focused on information exchange and generating future actions and partnerships (see Agenda - Appendix C).

The emerging recognition of the relationship between women's health and the environment is timely. Women are increasingly becoming more publicly active and mobilized around health and environmental issues. Concern over the effects of environmental contamination on women's health, and the health of children, is strong motivation for increased action. Women are increasingly involved in communication and education activities that create greater awareness and promote action on various health and environment issues.

This report presents the highlights of the women's consultation meeting.

2.0 PERCEPTIONS AND EXPECTATIONS

Following the introductions of each participant and their respective organization, a general group discussion of the expectations of the consultation meeting took place. Among the participants, some common perceptions, interests, and themes emerged:

- i. Overwhelming consensus regarding the refreshing and pleasant atmosphere of a women's consultation meeting was expressed. Participants emphasized the important networking opportunity that the meeting provided and expressed an openness to share and exchange knowledge, and an eagerness to learn.
- ii. Participants felt strongly about the urgent need to generate public awareness of health and environment issues. Getting information out to both the public and to other women's groups, were seen as key strategies in generating greater interest and action. Interest was expressed about how best to "get the messages out" to reach the public and the wide diversity of interest groups involved in health and environment issues. Public fear and denial were acknowledged as important impediments to mobilizing and empowering communities. Networking with local and provincial organizations was recognized as an important activity towards action.
- iii. The importance of promoting community involvement and action on health and environment issues was a shared concern among the participants. Communities have an increasing responsibility to create healthy ecosystems for their citizens so that health is protected. Empowered communities working on local initiatives help to share the burden of solving health and environmental problems with governments and with industry and create momentum for regional change.
- iv. Participants expressed a desire to keep women at the forefront of health and environment issues, as too often men are making decisions on health issues that affect women. Representing women's interest groups, and women from environmental groups, participants expressed an interest as to how best to empower other women. The unique style of communication between women was stressed as a strong asset in reaching out to other women. Participants acknowledged a need for women to strengthen their communication techniques, including public and media speaking skills. There was consensus for more and continued support from other women, as well as support for each other's efforts to facilitate change.
- v. The concept emerged that people not only need to protect their health in the short-term, but long-term protection of the environment must be ensured to protect future good health. Human health problems will not improve in a sick environment. Humans are part of the ecosystem and the need for clean air, water, and food is fundamental for good health. Participants shared a common definition of health as not just the absence of disease, but the complete social and mental well-being of individuals and society.
- vi. Participants shared a common perception that in recent years, the environment has been pushed off the Canadian political agenda by economic concerns. There is no choice to make between the environment and the economy, because good environmental choices make good economic sense.
- vii. The concept of 'small steps' and the power of the small decision emerged many times. Commitment to change begins with the action of one concerned citizen.

3.0 EXCHANGING INFORMATION ON HUMAN HEALTH AND ENVIRONMENTAL ISSUES

Presentations by different speakers provided a wealth of information on various environmental, health, and community issues and provoked interesting group discussions. The following section summarizes the topic areas and highlights key points.

3.1 The Role of Science in Health and Environmental Action Dr. Andrew Gilman, Great Lakes Health Effects Program, Health Canada

Scientific studies at GLHEP monitor the changing trends of contaminants in the environment and the impact of these contaminants on the health of Canadians. Science provides knowledge and promotes understanding, but science does not solve problems. People solve problems. Short-term work in communities and long-term global actions are required to continue the trends in declining contaminant levels and to combat increasing threats of global pollution.

- Environmental contaminants of concern include persistent chlorinated organics (e.g. PCB, HCB, mirex, DDT, dieldrin, chlordane, chlorinated dioxins, furans); volatile organics (chlorinated and unchlorinated) (VOCs) (e.g. trihalomethane, benzene); polyaromatic hydrocarbons (PAHs); organic and inorganic metals (e.g. mercury, cadmium, lead); radionuclides (e.g. radio-caesium, radio-strontium); and microbiological agents (e.g. bacteria, viruses, protozoan, fungi).
- 'Sources' of contaminants are where contaminants originate (industrial emissions, spills, etc.); 'pathways' are how contaminants reach an individual (food, air, water, soil, consumer products); and 'routes of exposure' are how contaminants enter the body (ingestion, inhalation, and skin absorption).
- Data indicated that the dietary intake by Canadians of DDT and some other pesticides (dieldrin, HCH) have decreased significantly over the past 20 years (1969-1988).*
- Nation-wide surveys of chlorinated hydrocarbon residues in human fat tissues, carried out in 1969, 1972, 1976, and 1985, indicate a downward trend in residue levels in each of the five regions of Canada (Atlantic Region, Quebec, Ontario, Manitoba and Saskatchewan, Alberta and British Columbia).*
- Data on pesticides (dieldrin, DDT, HCH) and PCBs in whole breast milk indicate that DDT levels have decreased dramatically between 1967 and 1986, and that PCB levels have decreased in recent years.*
- Comparative data of PCB residues in breast milk fat in several countries showed that Canada compares favourably with those reported in other Western nations (Germany, U.S.A., Sweden, and Great Britain).*
- As atmospheric lead levels have been decreasing dramatically across Canada since restrictions on leaded gasoline in 1972, so too have the blood-lead concentrations in children.*
- Trends in environmental radioactivity in air, precipitation, and cow's milk (containing caesium-137) indicate that levels have declined since 1960.*

(* Data found in *A Vital Link: Health and the Environment in Canada*, Health and Welfare Canada, 1992.)

Discussion:

In the ensuing discussion, participants raised many concerns related to the federal and provincial government recommendations and regulations regarding the permissible level and daily tolerable intake of various contaminants found in foods and drinking water. For example, concern was expressed over uranium and the quality of drinking water and concern was also expressed over the levels of dioxins allowed in foods sold in Canada. Participants expressed frustration over the difficulty in accessing information on testing and procedures (what contaminants are tested for and how often) and contaminant guidelines (what are the permissible levels and how are they arrived at). Participants felt that not only is there a lack of information available to the public, but the information that is provided (especially information on contaminant standards) is not easily interpreted.

The testing of well water for toxic contaminants was of particular concern to some participants. It was argued that those who are dependent on well water as their drinking water supply should demand free testing and analysis of the water. Generally, citizens should get involved in the standard setting process for contaminant levels.

A suggestion was made that pesticide regulation should be managed by Health Canada rather than Agriculture Canada because of the possible adverse health impacts of pesticide use.

3.2 The Food Chain and Food Consumption

Joyce Mortimer, Great Lakes Health Effects Program, Health Canada

In the Great Lakes Basin, the major route of human exposure to persistent toxic chemicals is through the consumption of contaminated food, especially contaminated fish and wildlife. As part of the food chain, humans can be exposed to concentrations of toxic chemicals through the process of bioaccumulation. Studies conclude that individuals who eat large amounts of contaminated sports fish and wildlife from the Great Lakes Basin may be more highly exposed to toxic chemicals. Consequently, the government is involved in ongoing research studies and promotes various public protection strategies.

- Persistent toxic chemicals found in fish include chlorinated organic compounds (e.g. PCBs, mirex), dioxins, furans, hexachlorobenzene (HCBs), dieldrin, DDT, toxaphene, and heavy metals like mercury.
- Anglers and their families, native peoples, and certain immigrant groups (e.g. Asian) may have a higher risk of receiving excessive exposure to contaminants because these groups may be consuming large quantities of Great Lakes fish.
- Groups with greater sensitivity to these types of toxic chemicals may include fetuses (toxic chemicals can cross the placenta); neonates (breast milk contains a lot of fat where some toxic chemicals accumulate); and children (growing, smaller body burden).
- An ongoing study of the offspring of women who consumed large amounts of Lake Michigan fish indicates that contaminant exposures may have caused several health effects including decreased birth weight, gestational age, and head circumference, and also cognitive and motor deficits in infants. Research in this area is complicated because other factors (e.g. genetics, alcohol consumption, tobacco, maternal nutrition) also affect the health of babies.

- More research is needed to clarify the relationships between the levels of exposure and health effects, and to identify causative agents more definitively.
- The Great Lakes Basin Anglers Exposure Assessment Study, currently being conducted by Health Canada, is examining the relationship between Great Lakes sports fish consumption and levels of some environmental contaminants and biomarkers in blood, urine, and hair samples.
- The Rat Multigeneration Study, conducted by Health Canada, is assessing the multigenerational effects of mixtures of chemicals found in Great Lakes fish on reproduction, the immune system, birth defects, and behavioural development in rats fed Great Lakes fish.
- Health Canada states that the benefits of breast feeding (nutritional and immunological) outweigh the risks to infant health from environmental contaminants.
- To reduce exposure to toxic chemicals individuals are advised to follow the Ontario Ministry of the Environment and Energy's fish advisories contained in *The Guide to Eating Ontario Sports Fish*. This guide advises people on which species of fish to eat and from what locations, and on how best to prepare fish for consumption.
- The Great Lakes Health Effects Program (GLHEP) works to protect health and to promote a healthier environment. GLHEP supports community involvement in activities and collective actions that address environmental concerns and also is a resource for information (e.g. health and environment documents, fact sheets, technical documents).

Discussion:

Discussion following the presentation was focused upon the frustration experienced by many environmental activists who often clash with government agencies and industry over the messaging of environmental issues. Governments and industry are often perceived by activists as using science to glaze over environmental problems and to make it appear that improvements are being made. Activists maintain that government's "positive" messaging inaccurately portrays the severity of environmental problems and disempowers people. A distrust in science and research is prevalent.

Attempts were made to clarify the government's point of view. While programs like the Great Lakes Health Effects Program have to give messages of health protection, it does not mean that the government condones the underlying problem of environmental contamination. Scientific data provides knowledge of current issues and encourages continued inquiry. When communicating this knowledge, a fine line exists between scaring the public and encouraging them to take action.

It was acknowledged that future GLHEP presentations should place statistics on contaminant level declines into context. The Great Lakes Health Effects Program must emphasize the actions aimed at reducing and eliminating contaminant levels in the environment in order to protect health.

3.3 Sustainable Agriculture

Dona Stewardson, Ontario Federation of Agriculture (OFA)

The issues of food production and pesticide use by farmers are encompassed within the principles and practices of sustainable agriculture. Sustainable agriculture is defined by farmers as the balance between environmental stewardship and economic viability. Many recent initiatives and

innovative efforts have been made by Ontario farmers and other agencies to promote awareness of pesticide use and to adopt new habits.

- Ontario farmers have reduced the use of agricultural pesticides by about 25% over the past ten years, according to Ontario Ministry of Agriculture and Food statistics.
- Reduction in pesticide use in Ontario is due to better grower education on efficient pesticide use; the availability of newer, more target-specific pest control products; more widespread use of crop rotations and integrated pest management systems; and ongoing research.
- The OFA supports the goal of the Ontario Ministry of Agriculture and Food to reduce agricultural pesticide use by a further 50% by the year 2002.
- The Grower Pesticide Safety Course (GPSC), jointly administered by the Ontario Ministries of Environment and Energy, and Agriculture and Food, is a mandatory training program for farmers on the safe use, handling, and storage of agricultural pesticides.
- Farmers, through AGCare (Agricultural Groups Concerned About Resources and the Environment) have been partners in organizing a 1992 pilot project, and the 1993 Ontario Pesticide Container Recycling Program.
- Ontario farmers were partners in the province-wide 1992 Waste Agricultural Pesticides Disposal program to safely dispose of de-registered, unwanted, or otherwise unusable agricultural pesticides.
- Farmers are pressing for the implementation of reforms to Canada's pesticide registration system so that competitive access to newer, more environmentally benign and more thoroughly-tested pesticides is allowed.
- The document entitled *Our Farm Environmental Agenda*, released by the Ontario Farm Environmental Coalition, reflects Ontario farmers' analysis of 17 key environmental issues facing farmers and calls for every farm family in the province to complete an Environmental Farm Plan (EFP) by the year 2000.
- EFPs adopt a farmer-helping-farmer pro-active approach to good environmental stewardship and allow farmers to identify areas of potential environmental risk on their farms, and set realistic goals to minimize those risks.

Discussion:

Discussion following the presentation revolved around the broader economic, social, and ecological issues of pesticide use. In Canada, the use of pesticides in food production allows agriculture to be an economically viable and competitive activity. Many farmers feel that without pesticide use in agriculture, high production costs and low economic competitiveness would result. In comparison to other countries, Canada has stringent regulations governing pesticide use. The farm community is often perceived as being solely responsible for pesticide use. This is not the case. Chemical industries, enterprises involved in funding research, governments and consumers all contribute to our dependency on pesticide use.

Efforts in organic farming and ecological farming (e.g. crop rotation) were discussed. Farmers are dependent on government and consumer support for use of environmentally friendly products so that they can protect the environment as well as survive financially. However, the cost of this protection has to be accounted for in the cost of the food.

3.4 The Environment and Reproductive Health

Dr. Warren Foster, Environmental and Occupational Toxicology Division, Health Canada

Several persistent toxic substances considered to be human reproductive toxicants have been detected in human reproductive tissues. To address the question of whether or not environmental contaminants adversely affect human reproductive health, scientific studies have traditionally looked at the developmental effects and effects upon adults. It is important to look at the entire life cycle as there are numerous targets in the reproductive system that possess varying susceptibilities over time. Animal studies have indicated the need for science to examine the possible role of environmental contaminants on reproductive endpoints such as those used to measure a person's ability to conceive.

- Reproductive toxicology studies any adverse effect on fecundity (the ability of an individual or experimental animal to produce a live birth regardless of whether or not this potential has been fulfilled), fertility (the production of live births by a couple or breeding pair of experimental animals), lactation, and reproductive senescence.
- Developmental toxicology studies any adverse effect of chemical exposure on its developing fetus (e.g. death, morphological alterations, functional changes, delayed or precocious puberty) that appears from conception through to sexual maturity (e.g. effects caused by alcohol, tobacco, metals, polybrominated biphenyls, DDT, and polychlorinated biphenyls). It is important to recognize that developmental effects (anatomical or functional) may occur remote to the exposure thus making it difficult to establish cause and effect.
- Evidence supporting the role of environmental factors in impaired fertility comes from wildlife studies, reports of occupational exposures, epidemiological surveys, and animal experimentation.
- Wildlife studies, although tempered by different physiology and contaminant levels, provide a warning to humans as they suggest that reproductive function may be altered in humans by environmental contaminants.
- One Canadian study, conducted in three different cities, assessed human ovarian follicular fluid and semen for the presence of priority Great Lakes contaminants and determined the mean concentration of five organochlorines consistently found. PCB's were found in a high percentage of women from all three cities.
- Factors which affect contaminant residue levels include age, percentage body fat (leaner people show effects more readily), parity, milk fat composition (changes during course of year), and duration of lactation.
- Experimental rat studies indicate that the organochlorine HCB, and its major metabolite PCP, are able to alter ovarian progesterone production in rats, at relatively low concentrations.
- Scientific study concludes that the rate of infertility, around 10-15% in North America, has not increased significantly over the last 30 years in that the numbers are not increasing with each generation.
- American and European studies indicate that social change has been a factor in the cause for infertility as women are post-poning having children (as age increases, the ability to conceive decreases).
- Evidence exists to support the conclusion that occupational exposure to chemicals does indeed adversely affect human reproductive health.

- Regardless, at present there is no available scientific data to support the conclusion that human fertility or reproductive behaviour is impaired by exposure to chemicals that result in the body burdens reported in the literature for the general public.

- The body burdens reported in the literature does provide evidence for concern and supports the need for further studies.

Discussion:

Comments from participants focused on research activities in other area(s) of reproductive health. Participants were curious as to whether or not science was studying the effects of environmental contaminants on human semen, the effects of mixtures of toxic chemicals, how women excrete chemicals from their bodies, and the effects of contaminants on women who do not have babies. It was noted that scientific efforts are geared towards disproving that chemicals have an effect, rather than trying to prove that they do have an effect. The complexity of definitive findings in reproductive health research due to the presence of many other confounders was also noted. A discussion of the issue of breast cancer was generated in which many participants expressed their frustration over the lack of consistent scientific data and the lack of consensus in the health community over certain aspects of the disease (e.g. detection). While Canada leads in breast cancer management, it was noted that too often issues are publicly "hyped" and individuals depend on science for answers, and are then frustrated when they learn science doesn't have the answers.

3.5 Endometriosis: A Possible Role for Industrial Toxins

Barbara Mains, Endometriosis Association

Affecting women in their reproductive years, the disease endometriosis is the growth of endometrium tissue in locations outside of the uterus which can cause pain, infertility, and other problems. There is much uncertainty surrounding the disease, as specialists do not know the definitive cause of endometriosis, and there exists a need to find more effective methods of treatment. Studies have indicated a possible link between exposure to toxic chemicals and the presence of disease.

- Methods of medical treatment include the surgical removal of the ovaries and uterus, either physically or chemically.
- Problems associated with these treatments include side-effects, partial effectiveness of hormonal treatments, and the reoccurrence of disease.
- As the Endometriosis Association membership grew, there was a recognition that sufferers had other common syndromes and diseases, and suspicions arose of larger systemic problems such as an underlying systemic immunological disorder.
- Three separate research studies conducted with monkeys found the presence of disease in monkeys exposed to high doses of radiation, PCBs, and dioxin.
- While these studies are not conclusive in determining environmental contaminants as causes of endometriosis, they do show a high correlation between exposure to contaminants and severity of disease.

- There is still much to learn about endometriosis such as the relationship between immune and endome systems, exposure to fetuses, and intergenerational effects.

3.6 Nuclear Plants and Human Health Effects

Sherrill Willard, Ajax Save the Waterfront Committee

The city of Ajax, in the township of Pickering, is a community facing the grave problems of radioactive pollution. Thermal plumes carrying tritium (a radioactive form of hydrogen) from the Pickering Nuclear Generating Station flow eastwardly along the shoreline of Lake Ontario and past Ajax's water treatment plant. Found in the drinking water, tritium poses serious health threats to pregnant women and developing fetuses (tritium crosses the placenta). Conflicts of interest between community activists, concerned citizens, politicians, and the nuclear industry highlight the challenge of resolving community health concerns.

- Ajax experiences high rates of still births, neonatal mortality and infant mortality; high incidences of birth defects, including central nervous system defects and congenital heart defects; and, high rates of childhood leukaemia and Down's syndrome.
- Problems of industry leaks and accidents plague the community.
- Community concerns and frustrations include the low standards set on the acceptable level of tritium in drinking water (no threshold below which it is acceptable for fetuses), the misinformation and misreporting of industrial accidents and leaks, the lack of accessible information on drinking water quality, and frustration with the political process
- Community activists would like an advisory for pregnant women and would like to see the current standards of tritium reduced almost four times.

Discussion:

Participants discussed the nature of community dynamics around the issues. In Ajax, public pressure and community support for action, particularly from young concerned mothers, is increasing. Local public health units have enormous credibility, but the least amount of information; the media has the highest amount of information and the least credibility. Activists advocate the inclusion of health concerns in planning processes. A suggestion was made for the Ajax Save the Waterfront Committee to write down the lobbying process that the community has been involved in, so that other organizations can learn from the committee's experience.

3.7 Cancer Research and Findings

Dr. Andrew Gilman, Great Lakes Health Effects Program, Health Canada

Some aggregate cancer trends and distribution data indicate that the overall age adjusted cancer incidence and mortality is increasing globally, in Canada and in Ontario. Cancer research is a complex problem as there are many causes of cancer and particular groups of people are more sensitive to risk than others. Data on cancer trends is presented not to provoke fear, but rather to allow people to

become aware that a problem exists. The value of data on cancer trends is their potential for use in the development of hypotheses which can then be studied in detail to identify problems.

- Data on age standardized incidence and mortality rates for all cancers in Canada indicate that the incidence (number of new cases) of cancer in men is increasing, as well as the mortality rate (death).*
- For women, the increase in incidence and mortality is less than for men; however, women have had more than a threefold increase in the death rate from lung cancer between 1970 and 1990.*
- Uterine and cervical cancer incidence in Ontario have been on the decline between 1969 and 1988.*
- Ovarian cancer incidence in Ontario (1969-1988) for all ages has fluctuated.*
- Mouth cancer incidence in Ontario (1969-1988) has fluctuated for both men and women of all ages.*
- Melanoma skin cancer incidence in Ontario (1969-1988) has been climbing rapidly at the same rate for both females and males, and is expected to continue on this trend (UV radiation exposure).*
- The incidence of non-melanoma skin cancers for Canadians of all ages is on the rise due to behaviour and exposure factors.
- Lung cancer incidence in Ontario (1969-1988) is levelling off for males, and continues to rise in females due to increasing cigarette consumption by women.*
- Breast cancer incidence and mortality in Ontario women (1969-1988) are the largest cancer outcomes for women.*
- Pancreatic cancer incidence in Ontario (1969-1988) is declining in men, but has fluctuated for women.*
- National atlases of cancer 'roll up' levels of research information and contain statistics of incidence and mortality, metropolitan incidence (according to census tracts), and the spatial organization of various cancer rates (according to regions, provinces).

(* Data found in *A Vital Link: Health and the Environment in Canada*, Health and Welfare Canada, 1992.)

3.8 Environmental Sensitivities

Betty Auslander, Allergy and Environmental Health Association of Canada (AEHA)

Environmental sensitivities are experienced by a growing number of people as adverse reactions to items such as food, pollen, and chemicals that are found in the individual's environment. Causes are common and an individual is often frequently exposed to them. The home environment has been targeted as a high exposure environment. The AEHA organization pools together sufferers who work towards influencing political and business decisions that will help in the prevention and treatment of environmental sensitivities.

- Symptoms include skin reactions (e.g. itching, blisters, hives); respiratory problems (e.g. shortness of breath, asthma); and reactions that resemble the common cold (nasal congestion, sneezing, sore, dry throat, watery eyes).

- When the reaction is very serious and chronic involving symptoms like extreme fatigue and inability to concentrate, it is called environmental hypersensitivity.
- Environmental sensitivity is a degenerative illness as the symptoms are liable to get more and more serious and the person will react to more and more substances unless they avoid the offending agents.
- Sensitivities can develop at any time in life and seem to be related to the total load of biological, chemical, physical, and psychological stresses that an individual experiences.
- 15% of the Canadian population is estimated to be chemically sensitive and this number is expected to keep increasing significantly as the variety and tonnage of chemicals are increased.
- Research indicates that people most likely to develop chemical sensitivities are those who work with chemicals, tight building occupants, contaminated communities, and individuals exposed to poor indoor air quality.
- The 'home' is a place of potential exposure to harmful chemical substances including volatile organic compounds (VOCs) (found in cleaning solvents, tobacco smoke, mothballs, and dry-cleaned clothes); formaldehyde (found in plywood, foam insulation, carpets, upholstery fabrics, paints, cosmetics, wallpaper); natural gas (found in stoves and furnaces); plastics (the more flexible and odorous, the more outgassing occurs); electro magnetic radiation (from video display terminals, televisions, and fluorescent lights).
- People can control their reactions by avoiding or minimizing their exposure to offending substances, adopting a rotary diversified diet, eliminating toxic and harmful substances from the house, and by exercising.
- Sufferers do not completely recover their good health and their environmental sensitivities will continue to constrain their lifestyle.
- Recommendations for government action include developing building codes that only allow the use of non-toxic materials, legislation for consumer protection from toxic ingredients in products, promotion of sustainable agriculture, and encouraging corporations to move to zero discharge of contaminants into the environment.

4.0 DEFINING FUTURE ACTIONS

Following the presentations, discussion was generated to clarify issues and define future actions of the participants.

4.1 The Function and Purpose of the Women's Consultation

Participants recognized the need to determine the future function and the purpose of an ongoing women's consultation group. Participants were interested in deciding how best to make a real difference and how to use effectively the group's potential clout. Subsequent discussion produced two areas of direction for the group. The poles of education and action were acknowledged and ideally the group would like to be involved in both kinds of activities.

4.1.1 Public Awareness and Public Education

The value and importance of an educational role was recognized. The participants expressed a desire to raise the level of awareness of the link between the environment and human health. The provision of information to the public is the first step to generating public awareness and action. Members felt confident in their role to facilitate the effective dissemination of health and environment information to their respective organizations, and to their publics. By improving channels of communication, an ongoing group could strive to foster community enthusiasm and action on health and environment issues.

Future issues to address under this educational role include the literacy level of public information materials. Participants recognized that development of effective information materials begins with identifying who the information is directed at, and the use of plain language, or "user-friendly language" when writing the material. The idea to develop videos and pamphlets for public information purposes was put forth as a future activity for the group. Members expressed an interest in designing pamphlets containing information on issues of prevention, facts, and relevant statistics to relay important messages. Participants felt that more resources should be devoted towards prevention, rather than protection.

Many participants expressed an individual need to be supplied with more and continued information and resources for communication purposes.

4.2.2 Recommendations for Action

Participants conveyed a strong desire for the consultation group to be action-oriented. The issuing of group statements and resolutions was discussed as fulfilling this desired action component. Some participants would like to see recommendations resulting from the consultation process, whether for legislative action or public education, so that the record would reflect women's concerns. A suggestion was made that future recommendations could be collected and issued in an effective pamphlet for distribution.

No formal resolutions were made; however, participants expressed an interest in making recommendations to the government after future consultation meetings. Two possible future recommendations for GLHEP were identified, but were deferred until the next meeting. These future recommendations are the following:

1. The group recommend to GLHEP that a representative of women's interests sit on the GLHEP Public Advisory Committee (PAC).
2. The group recommend to GLHEP that the program should discourage the cosmetic use of chemicals (e.g. for lawns).

4.2 The Next Meeting

While concern was expressed as to the future function and purpose of an ongoing coalition or task force on women's health and the environment, there was overwhelming consensus and support for a second meeting. Although no formal date for a next meeting was decided upon, a planning committee was chosen to begin the organization and co-ordination of an upcoming meeting.

4.2.1 The Planning Committee

The planning committee responsible for organizing the next meeting consists of Linda Norheim, Betty Auslander, and Lynn Andrews will provide additional organizational support.

Bonnie Walter was nominated to sit on the committee, but declined the nomination.

4.2.2 Specific Suggestions

Specific suggestions were put forth by various participants regarding structure and process for the next meeting. These include the following:

1. All group members be consulted prior to the next meeting for input and comment on the agenda.
2. The goals and objectives of the next meeting be set in advance of the meeting to provide guidance and improve the preparation of participants.
3. The next meeting be widely advertised to generate interest and possible new participants.
4. A strategy be devised, or criteria developed, to select future participants to make the second meeting more "representative" of all the concerned groups and interested women in the Great Lakes Basin.
5. Group members be informed in advance of other participants attending the meeting and brief descriptions of participants be provided.

4.2.3 General Suggestions

The following suggestions are a collection of ideas for future meetings:

- To provide quality information, set topic areas for discussion with guest speakers who are experts in the area.
- Include more women talking about specific human health issues and their link to the Great Lakes environment.

- Theo Colborn would be an excellent speaker.
- The topic of chlorine should be a future agenda topic, if not the entire focus for a future meeting.
- Presentations on skills development and successful public education strategies in health and environmental issues would be beneficial.
- Invite an organic farmer to the next meeting.
- Circulate resolutions or recommendations with brief background information before future meetings.

4.3 The Role of Public Health Professionals

Participants were enthusiastic and supportive of the emerging role of public health units and public health professionals in the communication of vital health and environmental information to educate the public. GLHEP is currently involved in integrative projects to increase the profile and involvement of health professionals in these issues. The Great Lakes Health Effects Program recognizes the fundamental needs of health professionals to be provided with information for themselves and their communities.

All participants were encouraged to send important information from their organizations to Public Health Units and District Health Councils. As well, the idea to initiate a meeting with health professionals for communication and networking purposes was put forth.

5.0 EVALUATION AND GENERAL COMMENTS

Participants felt that the meeting was a great opportunity to listen, discuss, and learn from a broad group of women interested and knowledgeable about important environmental and health issues. The range and depth of issues raised was stimulating and challenging. There was overwhelming consensus for the excellent opportunity provided for the participants to network. Many participants were pleased with the informal meeting style as it provided a good atmosphere for sharing and communicating ideas despite possible conflicts of interests. The group size was good for interaction and the communication was rewarding.

Participants felt the consultation meeting could have been more focused as the purpose of the meeting was unclear until members came together and shared common threads of concern. Useful suggestions for structural and process changes were made and are included in sections 4.1.2 and 4.2.2. Some members felt that there were too many presentations from government representatives and encouraged more presentations from women participants focusing on community activities. Some participants would have liked to have been more involved in brainstorming activities conducted in smaller groups.

The Great Lakes Health Effects Program felt that the consultation meeting was very successful in terms of exploring the needs and interests of women regarding environment and health issues, in providing supportive networking, and in better defining the likely areas of collaboration with the Great Lakes Health Effects Program.

APPENDIX A

LIST OF PARTICIPANTS TO WOMEN'S CONSULTATION MEETING ON HEALTH AND THE ENVIRONMENT MAY 28, 29/1993

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APPENDIX B

CRITERIA FOR PARTICIPANTS

- (1) To have had previous contact and consultations with the Great Lakes Health Effects Program and to have received and reviewed the follow-up document entitled **Results of Consultations on Women's Health and the Environment in the Great Lakes Basin**.
- (2) To be located on the Canadian side of the Great Lakes Basin.
- (3) To be able to participate in the dissemination of information materials and/or messages on human health and environment issues.
- (4) To be geographically concerned and representative of an area within the Great Lakes basin.

APPENDIX C

AGENDA

WOMEN'S CONSULTATION MEETING ON HEALTH AND THE ENVIRONMENT John Eccles Centre, South Ring Road, University of Guelph

Friday, May 28th

- 1:30 pm. Registration & Set up Information Tables
- 2:00 pm. **Welcome, Opening Remarks**
- 2:30 pm. **Introductions and Expectations**
- What is your groups already doing?
 - current initiatives and actions on environment & health issues
 - Expectations of the meeting
- 4:00 pm. Networking and information tables
- 5:00 pm. **DINNER - provided on site in meeting room**
- 7:00 pm. **Dr. Andrew Gilman**
Great Lakes Health Effects Program
- The Role of Science in Health and Environmental Action
 - Contaminants of Concern - persistent toxic chemicals, volatile organics, metals, microbiologicals and radio nuclides:
 - Sources, pathways and routes of exposure
 - Point source and non-point sources
 - Food, air, water, soil, consumer products
 - Breathing, skin contact, ingestion
- 7:30 pm. **Joyce Mortimer**
Great Lakes Health Effects Program
- The Food Chain and Fish Consumption
- 7:45 pm. **Dona Stewardson**
Second Vice Pres.
Ontario Federation of Agriculture
- Food and Pesticide Use
- 8:15 pm. Questions
- 8:45 pm. Videos
- 9:00 pm. Snacks and Networking

Saturday, May 29th

- 8:00 am. CONTINENTAL BREAKFAST - provided on site
- 8:30 am. **Dr. Warren Foster**
Head, Reproductive Toxicology
Environmental and Occupational Toxicology Division
Health Canada
- The Environment and Reproductive Health
- 9:00 am. **Barbara Mains**
Director of Canadian Projects
Endometriosis Association
- Endometriosis: A Possible Role for Industrial Toxins
- 9:20 am. **Sherrill Willard**
Ajax Save the Waterfront Committee
- Nuclear Plants and Health Effects
- 9:40 am. Questions
- 10:00 am. **Dr. Andrew Gilman**
Great Lakes Health Effects Program
- Cancer Research and Findings:
 - current mapping efforts
 - time trends in Ontario for cancer incidence
 - regional/use associations
- 10:20 am. Questions
- 10:30 am. BREAK
- 10:45 am. **Joyce Mortimer**
Great Lakes Health Effects Program
- Air Pollution and Your Health
- 11:00 am. **Betty Auslander**
Allergy and Environmental Health Assoc. of
Canada
- Environmental Sensitivities
- 11:15 am. Questions

Saturday May 29th
(continued)

11:30 am.

Small Groups

- Brainstorm some goals & objectives to promote and protect the health of people who live in the Great Lakes Basin in relation to environmental contaminants.

12:15 pm.

LUNCH - provided on site

1:30 pm.

Report Back from Small Groups

2:00 pm.

Small Groups - Collective and Individual Actions

- How Best to Reach Goals?
 - response capacity of various groups?
 - what is practical, achievable?
 - specific actions to match above goals?
 - what resources are needed to achieve goals?

2:30 pm.

Report Back from Small Groups

3:00 pm.

Future of this Consultation Group

- where do we go from here, what needs to be done?
- calendar mapping - who is doing what & when?
- how to keep from duplicating work or conflicting reports, etc.?
- piggybacking on other women's networks?
- further meetings necessary?

3:30 pm.

Evaluation and Closing Remarks

3:45 pm.