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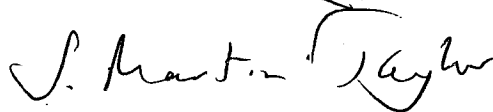
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Dear Sarah Miller,

Thank you for your participation in the IE&H Inaugural Workshop last November. Enclosed is a copy of the proceedings from the workshop, which we hope will be of interest to you. We would appreciate hearing any comments you may have about the report.

We look forward to your continuing association with the Institute.

Yours sincerely,

Frances Silverman
S. Martin Taylor

Encl.

in health
file

INSTITUTE OF ENVIRONMENT AND HEALTH
A joint venture of McMaster University and the University of Toronto

REPORT ON THE INAUGURAL WORKSHOP
"Setting Priorities in Environment and Health"

held on November 13th, 1991

at the
Canadian Centre for Inland Waters
Burlington, Ontario

Participants: University Faculty/Government Officials/
Interest Groups/Labour/Media/Community Groups

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I WELCOME

Ralph Daley (Environment Canada), Ron Childs (McMaster University), Richard Ten Cate (University of Toronto)

The workshop participants were welcomed and thanked in advance for their time and contribution to this important event. Each speaker remarked on the relevance and importance of the day's proceedings, noting that the effect of the environment on human health is a high and urgent priority on the public policy agenda. Further, this is an issue which the public at large perceives to be one of the most (if not the most) important issues of our time.

Each speaker endorsed the Institute's commitment to ensuring a healthy environment for Canadians and its interdisciplinary and intersectoral approach to the issue of environment and health. In addition, they supported the Institute's purpose to serve as a focus for activities on environment and health, forging links with other organizations (government, industry, labour, community groups and the media) to achieve its goals. The speakers urged the Institute to cross traditional working boundaries and bridge different sectors to deal fully with the issues.

Finally, the speakers emphasized that the Workshop was a beginning, and would be judged successful only if the ideas formulated throughout the day were developed collaboratively and turned into action.

II KEYNOTE ADDRESS

Clyde Hertzman

"Setting Priorities in Environment and Health"

Clyde Hertzman began his keynote address by identifying what he perceived to be the central unique feature that has emerged in the area of priority setting in environment and health. This is the issue of how to operate scientifically in a field dominated by an ethical/moral movement to "keep back from the edge" of environmental collapse. The concept of environmental collapse, or "society on the edge", has always bothered scientists. However, the situation in Eastern Europe is persuasive in that "keeping back from the edge" is a valid concern, given that several countries in that region are already confronted with serious environment and health problems. Although in the West this "movement" has so far prevented us from going over the edge, the danger of environmental collapse is also real for us, and should be acknowledged as such. Research in environment and health should therefore be guided by this. Valid academic priorities should be selected from those

activities whose purpose it is to support the continuous improvement of the physical environment.

The current era is one in which decreasing effluents, decreasing consumption, decreasing pollution and increasing cleanup are major priorities. This is an affirmative agenda which does not fit easily into a "critical appraisal" framework without careful thought. A special problem is that epidemiological studies are falling victim to "crowd control", where calls for research are disingenuous. It is therefore necessary to confine epidemiological studies to situations where positive and negative results are both meaningful and cannot be used to impede a worldwide agenda. Although theoretically there should be no boundaries in the selection of priorities, we must acknowledge that one boundary condition does in fact exist, namely the pollution problem of Eastern Europe versus the consumption problem of the West.

Presenting some of his own ideas for priority setting in environment and health, Clyde Hertzman admitted that his suggestions were mainly experiential and might be seen as somewhat self-serving.

Indicator research should be made a priority, given that this area is not very well understood. The approach should be to build on existing work, allowing for comparisons over space and time. A broader priority issue is information transfer and perception. It is all too easy for debates to become distorted: issues get broken down and the real focus of the problem can be lost. As an example, the Great Lakes water quality/breast feeding debate that ensued from statements regarding toxins in fresh water.

Lifestyle and social conditions can also influence environment and health as much as the physical environment. Although research may reveal certain problems, in some cases the issue is not how to solve them but how to get them recognized and acknowledged by the government. Cover-ups by government can frustrate those who wish to make changes for the better, as current experiences in Czechoslovakia illustrate.

As a summary statement, it was suggested that priority setting be a process of generating and organizing information in a form which can assist practical choices. For example, in the case of particulates versus sulphur dioxide, which is the more important? What is the environmental outcome and the impact cost? Or in the case of industrialization and pollution, does pollution decrease with decreasing industrialization? (Evidence suggests the answer is no---the more industrialized the nation, the less pollution there is). Only by properly compiling and organizing the information can the appropriate choices be made and the research funds targeted effectively.

Finally, for the future, we need innovative approaches such as more international regulations in the form of trade sanctions against environmental offenders and hopefully, research designs that work.

III INTRODUCTION TO THE INSTITUTE

Martin Taylor

In November 1989, a workshop was held by the University of Toronto and McMaster University to discuss environment and health issues and prospects for collaboration on these issues between the two institutions. At that Workshop it was agreed that an interdisciplinary approach was needed to deal effectively with environment and health problems, and that the two universities should enter into a joint venture by establishing the Institute of Environment and Health. The Institute would build on the existing strengths of the two universities and enhance these strengths through its achievements. In addition, the Institute would be committed to a long term view on the environment and health, and would be proactive, anticipating potential problems and helping to develop solutions.

IV INTRODUCTION TO THE WORKSHOP

Frances Silverman

The workshop was designed as the first major step outside the Universities to welcome broad participation and involvement in a process that began over two years ago. The primary purpose was to initiate a dialogue for developing intersectoral collaboration and partnerships which future environment and health activities could be built upon.

To facilitate discussion, workshop participants were split up into small working groups. Each one represented a cross-section of sectors, and was given an open agenda. The design was to allow for a free and full exchange of ideas about the identification and prioritization of environment and health issues, taking into account the varied perspectives present. The absence of a predefined set of issues was deliberate in order to accommodate all the views expressed.

The charge for the morning session (Session 1) was to generate a list of issues clearly identified as giving cause for concern both from an environmental and from a health point of view. This list would then be used by that same group in the afternoon session (Session 2) to develop criteria for prioritising the issues. Some suggestions were offered for consideration, namely: strengths and gaps in the evidence, resources, urgency of the problem and the need for interdisciplinary and intersectoral approaches.

V SYNOPSIS OF SESSION 1

Andrew Gilman

Three main types of issue were identified:

1. Philosophy/Approach issues
2. Methodology/Process issues
3. Research/Hazard issues

1. PHILOSOPHY/APPROACH ISSUES

A. Science driven vs. Policy driven

Should decision making be science driven or policy driven? The two schools are quite different: science is reactive and operates on the principle that one needs sufficient data to draw conclusions; proponents of science always want more depth, more information. The public, however, may interpret this as a delaying tactic. Policy driven decision making, on the other hand, is proactive, based on a willingness to act regardless of the completeness of the data.

B. Results of decision making

Some results are easier to understand than others. Economic results for example have a great deal of certainty and are immediate. A plant closure is well understood and its implications are clear. Environmental health results are more difficult to comprehend since they are less predictive at present, have less certainty about them and it usually takes a considerable amount of time to demonstrate an effect, an example being the increased risk of skin cancer due to the increasing size of the hole in the ozone layer.

C. Standards of Evidence

This issue raises the question of acceptable standards of evidence for data collection and review. IE&H can be an important player in establishing a body that will help set uniform standards in environment and health.

D. Equity in terms of decision making

Those making decisions are not always involved in the results of the decision. Communication is needed between the decision makers and those who are directly affected by the decision. There is a need to foster and push for a "product stewardship" approach to decision making.

E. Focusing of problem or issue

Health issues must always be a part of any IE&H research, whether it be ecosystem based, globally based or purely based on a human health problem alone.

F. Interdisciplinary integration of approaches

There is a clear need for an interdisciplinary, integrated, intersectoral approach to all environment and health issues. For example, the physical/technological approach, the social/behavioral approach, and the sociopolitical approach should be combined.

G. Development of approaches

The process of developing approaches/philosophies, as well as designing research, is important if the research is to succeed. One approach is to ask a series of cascading questions such as : Why do we need to change? How do we agree on change? How do we implement change? How do we evaluate success or progress?

H. Health Promotion versus disease prevention

As an Institute concerned with health effects, IE&H should foster and promote health, as opposed to dealing solely with the effects of ill health. The Institute should be careful however to take the inequities of the community into account at all times.

I. Position of trust

IE&H will be in a position of trust with the public and scientific community and therefore must be careful to disseminate credible information. Inherent in this principle is the importance of being an effective communicator with all parties.

2. METHODOLOGY/PROCESS ISSUES

A. Communication

It will be important for IE&H to learn and use a common language if it wishes to communicate effectively with groups from varied backgrounds and fields of expertise. There must be better communication with the public: IE&H must listen as well as talk. Traditionally, universities have not done this well. There should also be better communication with the press.

B. Meta analysis

More emphasis should be placed on meta analysis. Layers of information should be gathered from different sources to generate the "big picture"

C. Producing evidence

There is a need for a systematic approach to problem solving in environment and health. Currently there is no agreement on whether research should be policy directed or academically directed.

D. Community based research

If the community is left out of the process, the efforts of IE&H will not be successful. Public support is crucial. The needs of the public must be recognized, and they should be allowed ownership of the projects that affect them.

E. Epidemiologic data

The cause/effect model presently used is inadequate. The civil law approach should be used, i.e. more likely versus less likely. This is preferable to using 95% confidence interval statistics to show cause/effect relationships.

F. Controls, Legislation, Prevention Measures

The effectiveness of controls, legislation and preventive measures should be evaluated. Suggestions included: an environmental auditor whose job it would be to determine whether or not targets were being met, progress was being made, etc.; implementation of a sunset clause to enforce evaluation of regulations; evaluation of legislation to determine its adequacy and usage.

G. Conceptual Framework

As a first step for IE&H, a conceptual framework is needed to guide and direct research and decision making.

H. Education

The population needs to become more educated in the issues of environment and health at an early age. Multi-media, multidisciplinary training is necessary, and environmental successes and failures should be part of the learning cycle used in the education process.

3. RESEARCH/HAZARD ISSUES

A. Workplace

The workplace, and thus workers' health, should be considered part of the environment for IE&H. These environmental areas should not be excluded or confined to other institutions specializing in occupational health and safety.

B. Personal environment

This should be examined by looking at lifestyle factors and indoor air quality issues

C. Indicators

Effective tools should be developed to measure human exposure. The goal should be total exposure assessment in an efficient and non-invasive manner.

D. Impacts of urbanization

This area needs attention, beginning in the design stage. Specific areas to look at are the measurement of the health effects of urbanization on humans and the impact of urbanization on waterways.

E. Exposure routes

Outdoor air pollution and its effects on the population should be examined. Also, research needs to be done on the health implications of ambient levels of pollutants. This type of research is applicable to both outside and inside air quality issues.

F. Behavioral/Development issues

This is an important and newer area of environmental research. IE&H should consider investigating the neurological effects of toxics and their relationships to behavioural or developmental changes.

G. Psychosocial issues

This is an extremely relevant area of environment and health research for the IE&H, given the involvement of the public in some of the higher profile issues, such as PCBs, toxic waste sites and nuclear reactor accidents.

H. Pollution prevention

IE&H has an important role to play here in promoting the concept and practice of pollution prevention among industry and the public.

I. Solution oriented

Traditionally research has been focused on the problem and not the solution. IE&H should try to focus on solution oriented research, as well as on the traditional problem identification based type of research.

J. Priority hazards

Some suggestions of high priority chemical and other hazards were: aluminum, asbestos, drinking water, smoking, noise, gender differentiation, reproductive outcomes, respiratory diseases and soil contamination.

VI SYNOPSIS OF SESSION 2

Andrew Gilman

SETTING PRIORITIES

Development of a conceptual model must be the first step. This model should incorporate a set of priority activities as well as research criteria. Overall criteria can then be established for the implementation of IE&H activities. In this way, research activities will be consistent with the overall priorities of the Institute.

OVERALL CRITERIA FOR IE&H ACTIVITIES

- A. In research, a net benefit analysis should be undertaken. The potential for positive change or improvement should be assessed, as well as the magnitude of any health benefit or the magnitude in any reduction of negative effects.
- B. Geography is important in research. Is IE&H devoted to local, regional, Canadian or global issues? The Institute must determine which of these falls within its mandate, and develop a ranking for its activities.
- C. Duplication of research is unacceptable. If old issues are looked at they must be examined from a new perspective. All IE&H research activities should yield new knowledge and advance the frontiers of understanding.
- D. All IE&H activities should be proactive and not reactive. For example, IE&H should be proactive in helping government with decision making in the area of policy development.
- E. The necessary resources and expertise must be present or available in order to carry out the desired work.
- F. All projects undertaken by IE&H must be consistent with the major themes and overall conceptual model of the Institute.
- G. Environmental principles should be attached to research projects, for example, quality of life, sustainable development, genetics, etc.
- H. The practical implementation of research results is essential. IE&H should develop plans of action based on research findings.
- I. Projects should address valid community or public concerns, and the public should be involved as much as possible in the research. IE&H should have a community plan and should be accessible to the community and the public at large.
- J. All research must be interdisciplinary and intersectoral.
- K. An educational component should be included in IE&H activities wherever possible.

VII NEXT STEPS

Next steps were divided into two stages, short term and long term.

1. SHORT TERM

IE&H will digest the results of the day's work, distilling this into a report which will be distributed to all workshop participants.

IE&H will try to build on the momentum generated by the workshop to develop collaborative projects.

In addition, IE&H will continue to broaden the network of interested parties, communicating with individuals and sectors who could not attend the Workshop.

2. LONG TERM

The long term involves taking the salient environment and health issues identified at the workshop, prioritizing them according to the criteria established by the working groups, and generating the process for ongoing collaboration and partnership.

IE&H will fulfil its mandate which calls for active research, education, communication and service on issues in environment and health. IE&H will both initiate activities in these areas, and respond to requests for involvement from outside interested parties.

IE&H will seek active involvement of workshop participants through participation in multisectoral project groups. Membership in IE&H will be as defined in the IE&H structure document, and will be based on "active involvement" in the area of environment and health. This may take several forms:

1. through working groups focused on different projects
2. through seminars and workshops supported by IE&H
3. through monitoring progress and results of projects
4. through financial support

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