

From the President's Corner

In this newsletter we record three milestones in CAPE's history.

First, David Rosen and his crew have finally created the CHEER Foundation, our new charitable status arm. The acronym stands for the Canadian Health and Environment Education and Research Foundation. The new organization is designated to carry out research and educational activities ONLY. This restriction is demanded of us by the draconian rules of Revenue Canada, which, with a bunker mentality worthy of the WTO, has clamped down on every environmental organization that even hints at an activist posture. CAPE, as you will recall, has twice applied for charitable status and been turned down for this very reason; now, with the CHEER Foundation in place, we can receive major grants for research and education, but CAPE can continue to be as activist and outspoken – i.e. “political” – as necessary.

David has now formally withdrawn from the CAPE Board. He and the new CHEER Foundation Board will soon be outlining some current project activities. We congratulate them on their hard work (and special thanks to our legal advisers as well, in particular Ted Hyland).

Our second milestone is the general revision and updating of our website, www.cape.ca. Under the careful guidance of Peter Sakuls, and carried out by John Hewak (at very favourable rates!), the overhaul is now complete. Judging by the increased number of emails generated from visitors to the site, the face-lift is already bearing fruit. Have a look for yourself, and urge friends and colleagues to do so too. We're proud of the professional and easy to use format, and feel this will be a very useful tool for disseminating information to other health professionals and to the public at large.

At our 5th Annual General Meeting last October in Ottawa, Peter Sarsfield, an articulate public health physician from Ontario, joined the Board. And this meeting marked CAPE's third milestone. It was the first meeting attended by our new Executive Director, Kapil Khatter. Though as yet unpaid (a fact that we're all keenly aware of!) Kapil has already started to make his mark as our representative in the 'front lines', fielding input from other organizations, developing a financial plan and other internal protocols, and overall helping to link us together better. We are all grateful for Kapil's commitment – and we hope he lands a huge grant soon so we can pay him!

Warren Bell

Warren Bell, CAPE President



Kapil Khatter (CAPE) & Rich Whaite (TEA)

Greening Health Care: Update

Trevor Hancock

Following the successful joint CAPE/Health Care Without Harm workshop (with funding support from Great Lakes United immediately before our AGM in October, steps are underway to establish a National Coalition for Green Health Care. So far the CMA, CNA, Canadian College of Health Service Executives and CAPE are members, while support from CHA and CPHA is expected soon. Participating environmental groups include the Canadian Centre for Pollution Prevention, Health Care Without Harm/Toronto Environmental Alliance and Pollution Probe. Efforts are underway to develop a joint policy statement (based on the CNA/CMA joint position statement on Environmentally Responsible Activity in the Health Sector in May 1995), on the securing of funding

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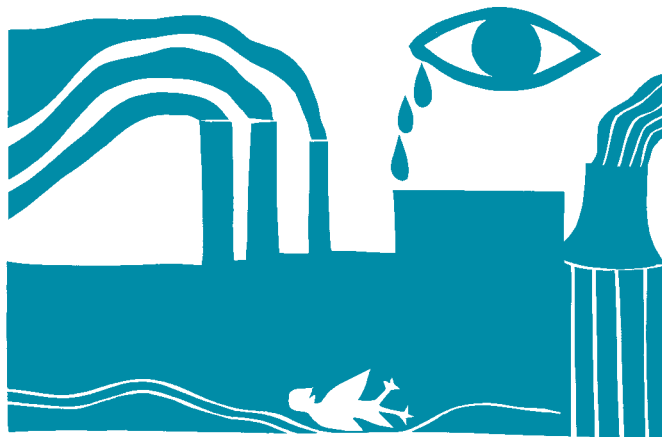
INSIDE

GE Foods • Pesticides,
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 Friends • Climate Change
 & Health • Canadian
 Environmental Health Facility
 for Children

Unique Canadian Environmental Health Facility for Children

Irena Buka, MB, ChB, F.R.C.P.(C), & Harold E. Hoffman, MD, CCFP, F.R.C.P.(C)

The Child Health Clinic at the Misericordia Hospital in Edmonton houses the first Paediatric Environmental Health Specialty Unit in Canada, where children with environmental health concerns are assessed and treated. A collaboration between the Department of Paediatrics and the Department of Public Health Sciences, the clinic is at present affiliated with seven U.S. Paediatric Environmental Health Specialty Units (PEHSUs) under the umbrella of the Association of Occupational and Environmental Clinics (AOEP). Inquiries regarding patients or information can be emailed to: <mchhc.enviro@cha.ab.ca>, or phoned to 780-930-5731. Dr. Irena Buka (CAPE Vice-president) is the contact paediatrician and Dr. Harold Hoffman (CAPE member) is the contact person from Occupational and Environmental Health. The clinic nurse coordinator is Jennifer Hislop-Boechler. Patients need a referral from their doctor. Not all children are seen on site; telephone consultations are available, especially for patients living outside of Edmonton. Apart from providing care and information, clinic staff give rounds and seminars for physicians, residents and other health care providers. Research opportunities are being encouraged. It is hoped that further clinics of this type will be set up across Canada.



National Roundtable on Climate Change and Health

Trevor Hancock represented CAPE on the Steering Committee for this Roundtable in September 2000, which was also attended by CAPE Board member David Rosen. A key issue that emerged was the importance of preventing climate change and not merely adapting to its occurrence. Another important issue was the need to focus on the “co-benefits” that can result from efforts to reduce greenhouse gas emissions, notably the reduction in other forms of air pollution that impact on human health. Concern was expressed at the lack of attention to the health impacts of climate change and to the economic implications of those health impacts. The Federal government was urged to address health impacts and co-benefits in future modelling and policy analysis. It is hoped that a National Coalition on Climate Change and Health will be established to undertake further work based on the Roundtable report.



Eco Friends

This feature section contains a brief synopsis of a group that shares CAPE's basic perspectives.

Pollution Probe is a Toronto-based organization, established in 1969 at the University of Toronto, with a distinguished history of addressing issues of air pollution and other toxic releases. It partners with all sectors of society to promote clean air and clean water. Since the 1990s, Pollution Probe has focussed its attention on issues related to air pollution and human health, including a major programme to remove human sources of mercury from the environment. For years, it has successfully promoted energy conservation, currently through the programme: “3Es” of Cleaner Electricity – Energy Efficiency, Energy from Renewables, and Emission Reductions. Pollution Probe's scope of work is now expanding to new concerns, including the unique risks that environmental contaminants pose to children, health risks related to indoor exposures, and the development of innovative tools for promoting responsible environmental behaviour.

For more information, visit www.pollutionprobe.org.

Pesticides, Parkinson's and Dementia

Chris MacKnight, MD, MSc, FRCPC,
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During the current debate on pesticide use in Canada, there has been little discussion of the long-term neurological effects of these agents. The evidence is strongest for a link with Parkinson's disease. Many, though not all, epidemiological inquiries have demonstrated a relationship between occupational exposure to pesticides and Parkinson's disease, as well as a dose-response relationship. Of special interest is a recent Californian study, which found an increased risk from domestic use as well. The toxicity of one commonly-used pesticide, rotenone, has been used to develop a mouse model of Parkinson's disease. Although all cells are susceptible to its effect as a mitochondrial inhibitor, dopaminergic cells seem to be particularly vulnerable.

Fewer studies address pesticides and Alzheimer's disease. Case-control data from the Canadian Study of Health and Aging showed an association between occupational exposure to pesticides and fertilizers and both Alzheimer's disease and vascular dementia. In the case of Alzheimer's disease the association was no longer significant after controlling for education. Five-year incidence of vascular dementia was related to pesticide use; the longitudinal data for Alzheimer's disease is not yet published. The only other study to investigate this relationship is the Maastricht Aging Study, which showed occupational exposure to pesticides to be related to worse function on cognitive testing in both cross-sectional and longitudinal analyses.

There has been no attempt to link particular agents to dementia, or to hypothesize a potential pathophysiology. My own guess is that pesticides cause generalized,

non-specific neuronal death, and so when a dementia develops the brain has less capacity to compensate, less reserve, and the dementia is expressed earlier than it might otherwise have been.

In the debate on household and industrial use of pesticides and herbicides, the long-term effects on the nervous system should also be considered.

Annotated references

ALZHEIMER'S DISEASE:

The Canadian Study of Health and Aging. The Canadian Study of Health and Aging: risk factors for Alzheimer's disease in Canada. *Neurology* 1994;44:2073-2080.

A national survey in 1990-91 of 10,623 older Canadians. A risk factor questionnaire asked about occupational exposure to pesticides or fertilizers. 179 had exposure data – OR of 2.17 (95%CI 1.18-3.99) controlling for age, sex and residence in community or NH. When controlling for education as well OR changed to 1.58 (95%CI 0.81-3.10). When stratified by education the OR was greatest for those with the least – 0-6 years OR 1.97 (95%CI 0.58-6.65), >10 years OR 1.06 (95%CI 0.28-4.03).

Lindsay J, Hébert R, Rockwood K. The Canadian Study of Health and Aging: risk factors for vascular dementia. *Stroke* 1997;28:526-530.

From the baseline study of CSHA. Case-control analysis of 129 cases – 76 cases had exposure data (a question of occupational exposure to pesticides or fertilizers). OR of 2.60 (95%CI 1.30-5.23), controlling for age, sex, education and residence (community and nursing home).

Hébert R, Lindsay J, Verreault R, Rockwood K, Hill G, Dubois M-E. Vascular dementia: incidence and risk factors in the Canadian Study of Health and Aging. *Stroke* 2000;31:1487-1493.

Follow-up data from the CSHA. A question was asked at baseline of occupational exposure to 'pesticides or fertilizers'. Of the 105 incident cases, 63 had exposure

data – 14 were exposed. OR (adjusted for age and region of the country) was 2.05 (95%CI 1.03-3.85).

Bosma H, van Boxtel MPJ, Ponds RW, Houx PJ, Jolles J. Pesticides increase risks of cognitive dysfunction: MAAS Prospective Cohort Study. *Neurobiol Aging* 2000; 21(S1):A145.

3449 subjects enrolled in Maastricht – provided occupational exposures at baseline. Underwent neuropsychological testing. They also looked at high-risk jobs. OR was 4.94 at baseline and 3.07 at 3 year follow-up, as defined by poor performance on neuropsychological tests.

PARKINSON'S DISEASE:

(this section is not exhaustive)

Semchuk KM, Love EJ, Lee RG. Parkinson's disease and exposure to agricultural work and pesticide chemicals. *Neurology* 1992;42:1328-1335.

A Calgary-based case-control study which found an OR of 2.25. In subclasses, OR was greatest for herbicides (3.06) – this persisted after adjustment for other factors.

Fall P-A, Fredrikson M, Axelson O, Granerus A-K. Nutritional and occupational factors influencing the risk of Parkinson's disease: a case-control study in Southeastern Sweden. *Movement Disorders* 1999;14:28-37.

Gorell JM, Johnson CC, Rybicki BA, Peterson EL, Richardson RJ. The risk of Parkinson's disease with exposure to pesticides, farming, well water, and rural living. *Neurology* 1998;50:1346-1350.

Kuopio A-M, Marttila RJ, Helenius H, Rinne UK. Environmental risk factors in Parkinson's disease. *Movement Disorders* 1999;14:928-939.

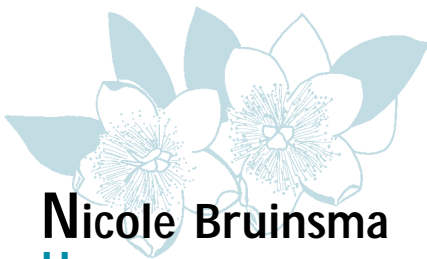
A set of case-control studies showing a significant relationship between pesticides and Parkinson's.



GE Foods

On November 10, 2000, Warren Bell was one of the invited speakers at the Council of Canadians public forum in Vancouver entitled Big Money, Bad Science: A Citizens' Response to Biotechnology and Genetic Engineering. On Feb. 16, 2001, Warren moderated another all day conference on the same subject in Ottawa, which closed with a rousing evening speech by U.S. consumer advocate and former presidential candidate, Ralph Nader. The success of both conferences illustrates the rapidly growing public opposition to the environmental release of genetically modified organisms (GMOs) and their use as food. Both conferences featured renowned scientists, including Canadians David Suzuki and Ann Clark, as well as Arpad Pusztai and Susan Bardocz, British researchers formerly with the Rowett Institute in Aberdeen, Scotland.

Canada has not yet signed the Biosafety Protocol, which limits the release of GE crops. Considering that as of September 30, a total of 74 countries have done so, it is imperative that the Canadian government abandon its pro-corporate stance and sign as soon as possible.



Nicole Bruinsma Honorary President

It is well known to many CAPE members that Nicole, our past vice-president, has been struggling with breast cancer. As a result, she has been unable to participate actively in day to day CAPE activities. At the AGM in Ottawa last October, in a brief and informal ceremony, Nicole was declared Honorary President of CAPE. It was an emotional moment for all present. Nicole has been pivotal to many initiatives of CAPE around pesticides and toxics, and all present felt no-one could be more deserving of carrying this honorific than her.



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for research on health care's environmental impact, on education, on supportive policy at the federal and provincial levels and on the strengthening of environmental management as a component of the hospital accreditation process.

CAPE also collaborated with Health Care Without Harm to have a "greening health care" booth at the Annual Conference of the Ontario Hospital Association in November. The booth received a fair bit of positive attention and provided an opportunity to begin to educate hospital management about environmentally-responsible health care. An additional benefit is that the display materials that were developed are now available for CAPE to use elsewhere.

I would like to join CAPE in working for a healthier environment

Last Name/First Name _____

Dr Ms. Mr. Miss Mrs. Other _____

Address _____

City _____ Province _____ Postal Code _____

Telephone _____ Email _____

Membership

- Members \$50
- Supporters (*Honorary mention and a free copy of The Canadian Guide to Health and the Environment*) \$200
- Students, retirees, those with limited income \$25
- Member Organizations (*one vote per organization*) \$50
(*My cheque is made out to the Canadian Association of Physicians for the Environment*)
- I would like updates on CAPE-related activities. Please put me on the CAPENEWS listserv (*for members only*).
- I want to get involved in CAPE.

Donations

I am sending a donation of:

- \$50 \$100 \$500 \$1000 Other _____ to support CAPE's environmental advocacy work (*My cheque is made out to the Canadian Association of Physicians for the Environment*).
- Please take a monthly donation of \$ _____ from my account on the 1st of each month. (*I have attached a voided cheque and signed below*)

Signature _____

- I would like a charitable tax receipt for my donation. I understand that these donations will only be used for research and education activities. (*My cheque is made out to the Canadian Health and Environment Education and Research Foundation (CHEER)*)
- Check here if you do not want your name shared with other like-minded organizations.

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