GPI Atlantic
Genuine Progress Index for Atlantic Canada / Indice de Progrès Réal

Welcome to GPI News #4: April, 2001

Dear Friend of GPI,

Thank you for your membership, and for your subscription to *GPI News*. Your contribution directly supports the GPI research and the continuing development of the Genuine Progress Index. As a non-profit group, we depend on this support. In fact, member subscriptions made possible the completion of our *Ecological Footprint* report (100 pages), released last month.

As a special thanks for your generous support, we want to offer our members and subscribers this new report (usually $35 plus HST) for ***free***. Just click here and you can download the entire report without charge: www.gpiatlantic.org/pdf/specialoffer/ecofoot.pdf . This special offer is also available to new members, so please let others know they can subscribe at www.gpiatlantic.org/membership.shtml

Welcome to our fourth newsletter. Our newsletters are designed to keep members posted on new research results, the latest GPI activities, and policy applications of the GPI. We made our first three newsletters available for free as an introductory offer, but they are now being distributed only to members. As well, GPI Atlantic is working with the Atkinson Charitable Foundation to co-publish a new national *Canadian Review of Wellbeing.* The prototype is complete, and GPI members will receive it in hard copy for free as soon as it is ready for distribution.

We also want to remind you that, as a member, you are entitled to a 25% discount on all GPI publications. When you order publications, simply state on your order that you are a member, and subtract the 25% discount from your cheque or credit card total. Your transaction is then recorded in our special members' database. Please let us know if you have any concerns or encounter any difficulties with receipt of the *GPI News* or publications.

****** Please come to our GPI Atlantic Annual General Meeting and celebration: Thursday, May 3, World Trade and Convention Centre, Argyle Street, Halifax, 7th floor boardroom: 7pm to 9.30pm.*** *Also please note that GPI Atlantic has a new phone number: 902-489-7007.*

We are delighted to send this newsletter your way, and we welcome your suggestions and opinions. Thank you for your support. Ronald Colman, Ph.D, Director, GPI Atlantic

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GPI NEWS Vol. 1, No. 4, April 2001

RECENT AND UPCOMING ACTIVITIES

Nova Scotia Ecological Footprint Released

The Nova Scotia Ecological Footprint, one of the 22 core components of the N.S. Genuine Progress Index, was publicly released on March 13. Authored by GPI researcher Jeff Wilson, the report received front page news coverage the following day, and was covered in a CBC Maritime Noon interview. In addition, columnist Ralph Surette devoted his Saturday Chronicle-Herald column to the GPI report, calling it "prophetic." The coverage triggered another column by Brian Lee Crowley, president of the Atlantic Institute for Market Studies the following week. The Surette and Crowley columns are included in this issue of the *GPI News*.

The report is significant as the major GPI measure of sustainability from the *consumption* point of view, and thereby encourages ordinary citizens to take responsibility for the environmental impact of their daily behaviour. The study found that Nova Scotians need 8.1 hectares per person to produce the resources they consume and absorb the wastes they produce, compared to a globally available space of 1.8 hectares per person. If all the world's citizens were to consume at Nova Scotian levels, we would need four additional planets earth to provide the necessary resources and absorb the waste produced.

The report recommends specific methods for reducing our current ecological footprint, and suggest a one-million hectare collective footprint reduction target for Nova Scotia by 2002. It notes that we have already reduced our solid waste footprint by 50% in just five years, and concludes that a one-hectare per person footprint reduction can be achieved without compromising our current standard of living.

A summary of major results is included in this issue of *GPI News.* The Ecological Footprint report (100 pages) is available free to members and GPI News subscribers. Please click here to download: www.gpiatlantic.org/pdf/specialoffer/ecofoot.pdf . For others it is offered for sale for $35 plus tax in the web site bookstore.

GPI Greenhouse Gas Accounts Completed

The Nova Scotia Greenhouse Gas Accounts (212 pages), authored by Dr. Sally Walker, have been completed, and are scheduled for release this month. Results were previewed in the last issue of *GPI News,* and were presented by Dr. Walker to the Northeast Premiers and Governors' Climate Change conference in Fredericton on March 30.

Community GPI Takes a Big Leap Forward

In February we received the wonderful news that our two community GPI projects – in Glace Bay and Kings County – have received $326,935 in funding over the next three years from the Canadian Population Health Initiative (CPHI) to develop and apply community health indicators as a pilot project for Canada. We were one of six projects nationwide to receive funding from CPHI.

The CPHI letter states that "the CPHI Council felt that your team has presented an exciting community-based research Program....The Council is excited about the prospects for this innovative and unique community-based work as well as the potential implications for policy and infrastructure that, it is hoped, will emerge from it."

The CPHI project is a partnership of GPI Atlantic with Dalhousie University's Population Health Research Unit (PHRU), the St. Mary's University Time Use Research Program (TURP), the Cape Breton Wellness Centre at the University College of Cape Breton, the Nova Scotia Citizens for Community Development Society, the Maritime Centre of Excellence for Women's Health, and many community and academic partners in Cape Breton and Kings County, including community health boards and public health authorities.

The CPHI project will use the GPI data collected in both communities to investigate the relationship between health outcomes and a wide range of health determinants at the community level, and it will turn the research findings into policy recommendations and action to improve the health of the population in both places. A manual and other materials will be prepared to enable other communities in Canada to construct their own indicators of community health.

Combined with existing funding from the National Crime Prevention Centre's Business Action Program and the Canadian Rural Partnership (the latter secured by the NS Citizens for Community Development Society), we can now move quickly ahead to complete our data collection and data entry in a timely way.

In Kings County, the NS Citizens for Community Development Society and GPI Atlantic interviewed six excellent candidates and have just brought on a very capable project manager, Cindy Trudel, who is now hiring survey administrators and coordinators to take 2,000 lengthy and detailed questionnaires into the field from April through June, 2001.

In Glace Bay, we have contracted the Market Research Centre at the University College of Cape Breton to administer the remaining 1,300 questionnaires (700 have already been collected by our own GPI staff there). The five full-time GPI Glace Bay staff members have now begun data entry of the survey information already collected.

At the same time, Michael Pennock of Dalhousie's PHRU and Dr. Andrew Harvey of the St. Mary's University Economics Department and TURP, have been working hard on a unique new database design with the assistance of two recently hired research assistants. This database will be able to link a wide range of information from time use, volunteer and employment patterns to health and security outcomes.

In other words, we are now steaming ahead on all fronts with many new partners and workers in the field. Two representatives from CPHI are coming to Nova Scotia from Ottawa in early April to meet the academic partners in this project in Halifax, and the Kings County community partners in Wolfville.

The community GPI is a big step forward for GPI Atlantic as well. This is the first time we are collecting our own data for the specific purpose of constructing a Genuine Progress Index. The questionnaire underwent three detailed reviews by senior methodologists at Statistics Canada, and was field-tested in both communities, and we have learned a lot from our mistakes as well as our successes.

We are confident that the outcomes of this project will provide a real breakthrough in the capacity of communities to assess their own wellbeing and progress, and we are delighted that we finally have the funding to see the project through to completion.

National Round Table Assists Completion of GPI Natural Resource Accounts

GPI Atlantic is grateful to the National Round Table on the Environment and the Economy for providing financial assistance towards the completion of the GPI renewable natural resource accounts – Forests, Fisheries/Marine Environment, and Soils and Agriculture, and the Ecological Footprint analysis.

All of these accounts have been in the final stages of data analysis and the first draft stage of writing for some time, but have been delayed by lack of funding; so the NRTEE funding is crucial in bringing these important GPI components to fruition. Particular thanks go to Carolyn Cahill, NRTEE policy advisor, for making this possible. The NRTEE funding will allow our researchers to get paid for their time in this final stage (a lot has been voluntary), and report releases in all three areas will take place in the coming months.

We have received excellent and helpful review comments on the forest report from many experts, and we have delayed the release of that report until we can incorporate this feedback and follow up on the advice we have received. The NRTEE funding is also allowing completion of the Sustainable Forestry Case Studies by researchers Minga O'Brien and Linda Pannozzo. These will form an important appendix to the Forest Accounts and demonstrate a clear and viable way forwards for the future.

Solid Waste Funding Secured – Internship Available

GPI Atlantic has received $10,200 in funding from Environment Canada's Science Horizons internship program to bring on a recent science graduate to work on the Solid Waste component of the Nova Scotia Genuine Progress Index. An additional $6,000 is being contributed by Halifax Regional Municipality. Work on this component will begin in May of this year and will be supervised by GPI researcher, Anne Monette.

If you know of a suitable candidate for this internship, please let us know at info@gpiatlantic.org. Science Horizons interns must be 30 years or younger, a recent science graduate, currently unemployed or underemployed (not working in an area related to their field of study), and eligible to work in Canada. Science Horizons internships have been vital in enabling the completion of the GPI Water Quality component (Kelly Macdonald and Sara Wilson) and the GPI Air Quality component (Anne Monette), which is currently in draft stage.

First GPI Agriculture Release Scheduled for April 24 in Kings County

Jennifer Scott, MES, has completed the first section of the GPI Soils and Agriculture Accounts -- a report on Farm Viability in Nova Scotia (45 pages). Current plans are to release this report at a press conference in Kings County, Nova Scotia's prime agricultural region, on April 24.

Reports on farm economic woes have dominated the news in recent months, but almost always from the perspective of farmer complaints. We believe this GPI report is the first in Canada to apply in practice a set of clear, objective indicators for the economic viability of farming as concrete measures of progress, to establish viability thresholds for each indicator, and to track changes over time.

The report provides detailed information on four specific indicators of farm viability:

- expense to income ratio
- return on investment
- debt to net income ratio
- direct payments to producers and dependency ratio

Although this first Agriculture release focuses on strictly economic measures, it is clear that economic stress may imperil responsible environmental stewardship by reducing the resources available to farmers to manage their land sustainably. Future Soils and Agriculture releases will focus more directly on the physical resource component, and recommend specific indicators of progress in the ecological and social dimensions of farming.

GPI Atlantic Profiled at National Sustainable Development Indicators Conference

More than 650 people attended the National Round Table on the Environment and the Economy's National Sustainable Development Indicators Conference in Ottawa on March 27. Representatives were roughly evenly divided between government (federal and provincial), business, non-governmental organizations, and academics.

In the morning, the conference was addressed by:

- the Federal Minister of Environment, David Anderson,
- the Chief Statistician of Canada, Ivan Fellegi,
- the Chair of the NRTEE, Dr. Stuart Smith and the NRTEE executive director, David McGuinty
- pioneer indicators expert Hazel Henderson (U.S. Calvert-Henderson Quality of Life Indicators),
- the principal architect of the UN Human Development Index, Selim Jahan, of the United Nations Development Program, and
- the World Bank's senior environmental economist, Kirk Hamilton, architect of the World Bank's Genuine Savings indicators that include natural resource depletion and investment in education.

Environment Minister, Mr. Anderson, called for "more comprehensive and accurate measures of progress" than are provided by the GDP, and for sustainable development indicators that are as usable, rigorous, well accepted and inspiring of trust as "more narrowly defined economic indicators" are today. Mr. Anderson invoked the native tradition of considering the interests of seven generations hence in any important policy decision.

The afternoon session profiled sustainable development indicators work under way in Canada today. GPI Atlantic presented its methods of valuing natural capital and measuring its depreciation, and used results from the GPI Forest Accounts as an example. The GPI presentation aroused considerable interest, and there were many comments and questions from the floor, including from Statistics Canada's Environment Division Director, Claude Simard, and from the World Bank's Kirk Hamilton.

The GPI Atlantic presentation and others at the conference will be published in a special autumn 2001 issue of *Isuma,* the journal of policy research produced by the Policy Research Secretariat of the Government of Canada. It will also be posted on the GPI web site in May.

Canadian Review of Wellbeing Prototype Distributed

The Atkinson Charitable Foundation and GPI Atlantic have produced a prototype first issue of *Reality Check: The Canadian Review of Wellbeing,* which was distributed for comment to participants at the national sustainable development indicators conference in

Ottawa on March 27. It has also been sent for review to many journalists and opinion leaders. The attractive eight-page three-colour review will be published four times a year.

Its mission is to promote the creation of a reliable, non-partisan Canadian Index of Wellbeing to be issued regularly, that will provide a more full and accurate picture of how Canadians are really doing. It will report on wellbeing indicator initiatives across the country at the national, provincial and community levels, and it will present sample results from these various projects. Its goal is to influence policy decisions by Canadian governments and discussions among ordinary Canadians by highlighting dimensions of wellbeing that are hidden in our conventional economic indicators of progress.

Review comments will be taken into account in the coming weeks, and revisions made; and the first issue will then be presented to the Atkinson Board of Directors for project funding approval. Edited by GPI Atlantic director Ronald Colman, the review will then be distributed to policy makers and public opinion leaders. It will be sent free of charge to GPI Atlantic members.

Other GPI News, Activities and Presentations in Brief

- **7 February**: Presentation on *The Real Cost of Poverty: Overcoming Barriers to Genuine Progress*, The Cooper Institute, **Charlottetown**, Prince Edward Island.

- **9 February:** Meeting with Nova Scotia Department of Health, Dalhousie University Population Health Research Unit and Atlantic Health Promotion Research Centre on a new population health approach for Nova Scotia.

- **12-14 February**: **St. Johns**, Newfoundland: Working with Newfoundland Statistics Agency on indicators for Newfoundland and Labrador Strategic Social Plan, and on community health and time use surveys. Includes meeting with Penny Rowe, director, Community Services Council.

- **15 February:** Teleconference with Health Canada's Policy Group, Ottawa, on the new "dynamic model of health" developed by the Commonwealth Secretariat's Working Group of which GPI Atlantic is a member.

- **20 February:** Meeting with Newfoundland Health Minister, Julie Bettney, on population health indicators.

- **21 February:** With Bill McKay, First Nations Forest Representative, and GPI forest researcher Linda Pannozzo, -- Meeting and presentation to executive directors and staff of International and Canadian Forest Stewardship Council during their one-day visit to Halifax.

- Community survey advice provided gratis to **NS Paraplegic Association** for upcoming needs survey in Cape Breton.

- Two recent task forces heard presentations from GPI Atlantic, and their final reports (**February)** have both specifically recommended the use of Genuine Progress indicators:
    - Nova Scotia **Environment Act** review panel;
    - Department of Fisheries and Oceans review of options for restoring flow to the **Petitcodiac River.**

- **February-March:** Consultations with **Canadian Policy Research Networks,** Ottawa, on final indicator selection for Quality of Life Indicators Project.

- **March:** GPI Atlantic was elected by members of the **Forest Stewardship Council** who are small woodlot owners, to sit in the 4-member Economic Chamber of the Maritime Regional Committee of the Forest Stewardship Council. This is the committee (on which GPI Atlantic served for three years) that produced a far-reaching set of standards for sustainable forestry in the Maritimes. JD Irving is also represented in the Economic Chamber of the Council.

- **March 15:** Presentation on Costs of Social Exclusion/Inclusion at Health Canada sponsored conference in **Miramichi**, New Brunswick. (Presentation summary included in this issue of *GPI News).* Full day conference participation.

- **March 16:** Presentation on "Climate Change in the Genuine Progress Index" to Climate Change Conference sponsored by the Atlantic Centre for International Cooperation, **Memramcook,** New Brunswick.

- ***A Busy Week for GPI Atlantic – 6 Conferences/Presentations in a Week!***
  During the week of March 26-30, GPI Atlantic was represented at six out-of-province conferences and meetings:

    - **Toronto, March 26-27:** GPI Atlantic was invited to participate in and advise at a workshop of the Social Sciences and Humanities Research Council on social science research on the new economy; and at a conference on Economic Valuation sponsored by Prevention Dividend. GPI Atlantic Board member, John Odenthal, represented GPI Atlantic at both events.

    - **Ottawa, March 27-28:** GPI Atlantic presentation to the National Round Table's Sustainable Development Indicators national conference (March 27), and participation in full day National Round Table stakeholder workshop (March 28). GPI Atlantic is a member of the National Round's Environment and Sustainable Development Indicators Steering Committee.

    - **Fredericton, March 29-30:** GPI Atlantic climate change researcher, Dr. Sally Walker, gave presentations on the GPI to the New Brunswick Departments of Transportation, and Environment and Local Government; and on the GPI

Greenhouse Gas Accounts to the Northeast Premiers and Governors' Conference on Climate Change.

- **March:** Dr. Maureen Reed, Associate Professor, Department of Geography, **University of Saskatchewan,** has received a teaching release for the fall 2001 semester specifically to examine the work of GPI Atlantic, with emphasis on the community GPI project. GPI Atlantic is supporting Dr. Reed and her partners in the Community-University Institute for Social Research at the University of Saskatchewan in their application to the Social Sciences and Humanities Research Council for their proposed research on community-based GPI indicators.

- **March 22:** As a result of prior contacts with GPI Atlantic, 20 British Columbia community groups, with support from provincial and federal government agencies, establish **GPI Pacific** in Vancouver, with the intent of cooperating and working with GPI Atlantic to create a Genuine Progress Index for British Columbia.

Upcoming Events Include:

- **April 5:** Presentation on *Economic Costs of Social Exclusion* to Health Canada's Population and Public Health Branch Executive Committee, Halifax.

- **April 5:** Interview with Atlantic Canada's *Saltscapes* magazine.

- **April 21:** Presentation with Leonard Poetschke on community GPI to annual general meeting, Nova Scotia Citizens for Community Development Society, Sobey Building, St. Mary's University, 10am to 12 noon. ***Note: Anyone interested in the community GPI project in Kings County and Glace Bay, and who wishes to participate, is urged to attend this meeting.***

  The NS Citizens for Community Development Society is also looking for new board members for the next year, and would welcome GPI Atlantic members interested in the community GPI. The working relationship between GPI Atlantic and the NS CCDS is a long and fruitful one, and follows the initiation of the community GPI project by NS CCDS in 1998. If you are interested in being on the NS CCDS board, please let Leonard know at audlen@iglide.net.

- **April 26:** Presentation to Diabetes Care Program of Nova Scotia on *Costs of Obesity in Nova Scotia*, 6pm, Prince George Hotel, Windsor Room, Halifax.

- **April 27: Sydney, Cape Breton:** Presentation to Volunteer Awards dinner, Cape Breton Regional Municipality Recreation Department.

- **April 28:** Meetings with GPI Glace Bay director, staff, and survey coordinator.

- **May 3: GPI Atlantic Annual General Meeting and Celebration, 7pm-9.30pm,** World Trade and Convention Centre, 1800 Argyle Street, 7th floor boardroom. **Members: Please join us on this occasion.**

- **May 9, 7pm:** Introductory presentation on the Genuine Progress Index, St. Margaret's Bay Shambhala Centre, 13495 Peggy's Cove Road, about 100 metres from the lights at Highway 3

- **May 14-16: St. Johns, Newfoundland:** consultations with Newfoundland Statistics Agency; May 15, 10.45am: Presentation to Senior Social Service Managers Forum.

- **May 26,** 9.30am: Presentation on Value of Volunteerism to Annual General Meeting, Heart and Stroke Foundation of Nova Scotia, Halifax.

- **June 1,** 9.30am: Presentation to Gerontology Association of Nova Scotia on volunteerism and aging.

- **Upcoming GPI report releases:** (All dates are subject to funding availability).

  Anticipated for April-May:
  - *The Nova Scotia Greenhouse Gas Accounts* (researcher: Dr. Sally Walker)
  - *Farm Viability in Nova Scotia* (section 1 of the GPI Soils and Agriculture Accounts) – scheduled for release April 24 in Kings County (Jennifer Scott)
  - *Income Distribution in Nova Scotia* (Colin Dodds).

  Anticipated for May-July:
  - *The GPI Forest Accounts* (Sara Wilson, Linda Pannozzo, Minga O'Brien)
  - *Air Quality in Nova Scotia* (Anne Monette)
  - *The GPI Fisheries Accounts* (Dr. Tony Charles, Heather Boyd, Amanda Lavers)
  - *The Full Costs of Transportation in Nova Scotia* (Dr. Larry Hughes, Vanessa Husain, David Caulfield)
  - *The GPI Soils and Agriculture Accounts* (second release – Jennifer Scott and Julia Cooper).
  - Plus a special *Profile on Newfoundland and Labrador*, replicating several GPI components for that province – in particular the Value of Voluntary Work, Population Health variables, and the Cost of Crime.

ERRATUM: Please note that in the last issue of *GPI News* (#3), the article on the cost of smoking stated (end of page 16): "There are currently 16,000 underage smokers in Nova Scotia spending $10.6 million annually on cigarettes. These illegal sales yield $6.4 billion in federal and provincial taxes." Clearly this should have read "$6.4 million" *not* "billion". We apologize for the typo. Thank you astute reader Leonard Poetschke for noticing the error.

BIGFOOT DISCOVERED IN NOVA SCOTIA
We Tread Less Lightly Than We Think

GPI Ecological Footprint Recommends 1 Million Hectare Footprint Reduction by 2002 as "Genuine Progress" Target for Province

For a small province, Nova Scotia has very big feet. Ecological feet, that is. GPI Atlantic's *Ecological Footprint* report (100 pages), released March 13, finds that Nova Scotians are consuming more goods and producing more waste than the environment can handle.

The *Nova Scotia Ecological Footprint* is one of the 22 core components of the Nova Scotia Genuine Progress Index, and the main one to measure sustainability from the consumption side rather than from the production side. Our "ecological footprint" measures our impact on the environment by calculating the amount of productive land and sea area it takes to meet current consumption levels.

The new GPI report finds that Nova Scotians currently need ***8.1 hectares per person*** to provide the resources and absorb the waste to support their eating, shopping, travelling and energy use habits. That is one-third less than the average American's footprint, but 30% more than the average West European's, and far in excess of the 1.8 hectares per person globally available.

If all the world's people were to consume at Nova Scotian levels, we would need four additional planets earth to provide the necessary resources and waste assimilation capacity.

In other words, Nova Scotia's current use of food, energy, water and other resources takes up far more ecological space than we have. And unlike measures of progress based on economic growth in which "more" is always assumed to be "better", the 100-page GPI study, authored by GPI researcher Jeff Wilson, notes that a *smaller* ecological footprint would be a sign of genuine progress for the province.

The ecological footprint concept was developed by University of British Columbia researchers William Rees and Mathis Wackernagel. According to Wackernagel's most recent updates, the average global ecological footprint is currently 2.8 ha. per person, which means that human beings are depleting resources faster than they can regenerate and producing more waste than the world can handle, -- at the expense of future generations.

We are emitting more greenhouse gases than the air, land and sea can absorb, and we are using more timber and fish than the world's forests and seas can provide.

Living Beyond Our Means

The GPI report notes that this excess consumption and waste production is like living in debt, with a gradually accumulating ecological deficit. Just as the present generation is paying for over-spending in the 1970s and 1980s with higher tuition and reduced government services, so future generations will inherit the debt of our current ecological overshoot. We may have already begun to see its effects in the collapse of Atlantic ground-fish stocks, global warming, higher child asthma rates, and new environmental illnesses.

We also consume more than is available at the expense of other peoples. Thirty percent (30%) of the world's population currently consume 70% of the world's resources and produce 70% of the world's waste. The average African's ecological footprint is just 1.3 hectares per person, while the average U.S. citizen's is 12.2 ha. per person.

In fact, the richest fifth of the world's people, which includes Nova Scotians, consumes 45% of all meat and fish, 58% of all energy and 84% of all paper, and owns 87% of all cars. The poorest one-fifth consumes just 5% of all meat and fish, less than 4% of energy, 1.1% of paper, and less than 1% of all cars.

Of the 8.1 hectares required by the average NS consumer, transportation accounts for 1.6 ha., food for 2.4 ha., residential energy use for 1 ha., and other consumption for the remaining 3.1 ha. Just as global ecological footprints differ, not all Nova Scotian ecological footprints are the same size. The Halifax Regional Municipality has a footprint of 8.4 ha. per person, 4% larger than the provincial average. The wealthiest 20% of Nova Scotians have a footprint of 10.7 ha. per person (compared to 6.2 ha. for the poorest 20%) because the wealthy consume more resources and produce more waste.

The Nova Scotia ecological footprint has grown by 40% in the last 40 years, and it is projected to increase by another 12% to 9.2 ha. per person in the next 20 years. Our transportation footprint is expected to increase by 25% as more cars log more kilometres. The increase in fuel-inefficient SUV's, minivans and light trucks has expanded the transportation footprint sharply, with one SUV averaging three times the impact on the environment of a small car.

Reduce Footprint by 1 million ha., Report Recommends

The GPI report concludes that Nova Scotians could quickly and easily reduce their collective ecological footprint by 1 million hectares from 8.1 ha. per person to 7 ha. per person without compromising their quality of life. Consuming less of some items, shifting certain consumption choices, and changing public policy priorities can actually improve wellbeing and quality of life while reducing our impact on the environment.

Suggested personal changes recommended in the GPI report include:

- Walking and riding a bicycle whenever possible.
- Carpooling or taking public transportation to work instead of driving alone.
- Driving smaller more fuel-efficient cars and keeping them well-maintained.
- Buying more locally grown foods and locally produced goods.
- Not overeating, but consuming the calories appropriate for our age and activity.
- Eating more grains, vegetables and natural foods.
- Reducing household energy use by turning off lights, turning down the temperature at night and when not home, hanging out the laundry to dry, and using energy efficient appliances.
- Reducing water consumption by using a water-efficient showerhead, turning off the tap when not in use, and collecting rainwater to water plants and lawns.

Beyond such individual choices, the GPI report also points to the social and political decisions that are necessary to reduce the province's ecological footprint to less than 7 ha. per person, and to become a model of responsible and sustainable living. These social choices include:

- Investments in public transportation and bicycle lanes.
- Integrated land use / transportation planning to counter suburban sprawl.
- Tax incentives to support environmentally friendly co-housing developments.
- Support for local agriculture, nutritional education, and sustainable farming methods.
- Tax incentives to support renewable energy development, such as the Western Valley Development Authority's exploration of wind-powered electricity generation for the Annapolis Valley.

Nova Scotians have already dramatically reduced their solid waste footprint by 50% in just five years by composting and recycling. "This proves that we can do it if we want to," says GPI researcher Jeff Wilson, "and that we can certainly achieve the 1 million hectare footprint reduction target by 2002."

Nova Scotians also cut energy use sharply in the early 1980s in response to the increase in fuel prices. Today our total energy footprint (4.5 ha./person) is still 25% smaller than it was in 1979, but it is also 40% larger than it was in 1961. The GPI report suggests that Nova Scotia can both build on past successes and learn from successful West European models to reduce its ecological footprint substantially and to tread more lightly on the earth without compromising its quality of life.

This report, the first *provincial* ecological footprint analysis undertaken in Canada, was produced with funding from the National Round Table on the Environment and the Economy, Clean Nova Scotia Foundation, Halifax Regional Municipality, NS Department of Environment, NS Public Interest Research Group, and GPI member contributions. GPI Atlantic particularly welcomes the initiative of Clean Nova Scotia to assist Nova Scotians in reducing their ecological footprint (see next page).

Special Offer: Ecological Footprint Free to Members

The Nova Scotia Ecological Footprint (100 pages), authored by Jeff Wilson, BES, is available in the GPI bookstore for $35 plus tax. Members receive a 25% discount on all publications. As a special offer, in gratitude for the member subscriptions that helped fund this study, it is available free to members with this issue of *GPI News* by clicking here: www.gpiatlantic.org/pdf/specialoffer/ecofoot.pdf

This special offer is also available to new members, so please tell your friends and associates that this is the time to sign up. Member subscriptions help fund our research and keep GPI Atlantic going.

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The following statement was released by the Clean Nova Scotia Foundation on March 13, on the same date as the GPI Atlantic Ecological Footprint.

Clean Nova Scotia Endorses GPI Ecological Footprint Study

Organization Will Work to Achieve 1 million ha. Footprint Reduction

Clean Nova Scotia (CNS) welcomes the release of the Nova Scotia Ecological Footprint by GPI Atlantic. This important new study shows us how to measure the impact of Nova Scotians' everyday consumption habits on the environment. Clean Nova Scotia announced its intention to work with Nova Scotians to achieve the 1 million hectare footprint reduction recommended by GPI Atlantic by the end of 2002.

CNS Director Meinhard Doelle commented that "The GPI study comes at a time when Nova Scotia is developing new strategies on climate change, energy, solid waste, water and other vital issues that will determine our future for years to come. The "ecological footprint" exposes the linkages among all these issues, and therefore will be an invaluable tool for policy makers and citizens alike to measure our progress in the years to come."

"The GPI study highlights the need for holistic thinking and planning. It also demonstrates that there are real opportunities to reduce our overall environmental impact. Most importantly, it provides Nova Scotians with a standard for assessing our progress. The bigger the ecological footprint, the bigger the demand on our natural resource base. Our present state of consumption both provincially and on a global scale is not sustainable."

"Through existing CNS programs like our Home Tune-Up program, our PACK newsletter, and our solid waste and litter education programs, we at Clean Nova Scotia are already working with Nova Scotians to reduce our ecological footprint," commented Doelle. "Our newly established Climate Change Education Centre is ready to assist organisations and individuals throughout the province to take concrete actions to reduce our environmental impact through more sustainable energy use, agriculture, consumption, and transportation."

The GPI report presents a number of specific recommendations for individual and political actions that can dramatically reduce the impact of our current consumption habits on the environment. Doelle is optimistic that the GPI target for a one million hectare footprint reduction by 2002 can be realized, and he announced that Clean Nova Scotia would work with Nova Scotians to achieve the goal.

"In just 5 years Nova Scotians have reduced their solid waste footprint by 50%. So we know from actual experience that we can do it, and that individual and public actions can make a real difference. Nova Scotia's success with solid waste has been recognised throughout Canada and internationally as far away as Ireland and Russia. The Ecological Footprint study now suggests new frontiers for cooperation to reduce our impact on the environment further.

"We invite Nova Scotians, individually; through businesses, institutions and non-profit organizations to which they belong; and through enlightened public policy, to work with us to reduce Nova Scotia's ecological footprint to sustainable levels. Nova Scotia can be a global example that economic prosperity and an exceptional quality of life do not have to mean leaving a degraded environment for our children and grandchildren. We can become a model to the world of responsible and sustainable living," said Doelle.

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GPI Atlantic's release of the Nova Scotia Ecological Footprint aroused considerable interest, including the following commentaries in the Halifax Chronicle-Herald, both pro and con. We reprint them here for your interest:

March 17, 2001 from The Halifax Chronicle-Herald

Big Footsteps Towards An Ecological Showdown

By Ralph Surette

HERE'S THE big picture, in stark colours: as panic stalks the financial markets, taxes and interest rates are being slashed in an urgent attempt to stimulate consumer spending and keep the economy growing at all costs.

Meanwhile, a Nova Scotian study outlines how that same consumption and growth makes us ecology pigs which the natural world can't sustain forever, and maybe not even into the next generation.

There's a showdown somewhere down the road, obviously.

In an "ecological footprint" study, GPI Atlantic places Nova Scotians high up the global scale as big consumers and big wasters.

Contrary to the notion that progress consists of consuming more, the GPI study (part of a pilot project for Canada to create a "genuine progress index") asserts that "to exercise the choice not to consume" is the first step in true progress.

The "ecological footprint" idea, developed at the University of British Columbia and now used internationally, measures the amount of biologically productive land and sea it takes to sustain our consumption and the waste we produce, as expressed in hectares per person.

The average Nova Scotian, according to this calculation, requires 8.1 hectares. Canada's rate is 7.7 ha. (Nova Scotia's electricity is made from dirty sources - coal and oil - which accounts for most of our higher rating.) For Americans the number is 12.2 hectares.

According to the scientists, the best the world can sustain is 1.8 hectares per person - the rate that applies to China. (India, Africa and much of the Third World are lower, and are the only ones who should actually be consuming more.) The world average is 2.8 - nearly twice what the world's biology can sustain. It would take two earths to keep us going indefinitely at this rate - four if the entire world consumed at the Nova Scotian rate.

GPI breaks our "footprint" into three components: transportation, household energy and food. The elements of the first two are often discussed. What really held my attention was our "food footprint."

We're big food guzzlers. We have more obesity than the national average - although many people, if trips to food banks are any indication, are not getting enough amid excess. Unequal distribution, a world problem, is a problem here, too.

Citing many studies, GPI says costs connected to obesity in the form of increased disease and lost productivity are between $120 million and $250 million annually for Nova Scotia. To stop overeating, and eating the wrong stuff, mostly animal fats, would clearly constitute progress - although by conventional measurements pigging out and getting sick stimulate the economy.

There's also the perverse economics of agriculture. In Nova Scotia we import 88 per cent of the food we buy, and our average food item travels about 2,000 km to get here - increasing our "food footprint" because of high energy costs. Lettuce from California sells here cheaper than locally grown organic lettuce. Should we see that as a benefit of global economics, or as a result of cheap (but environmentally expensive) energy and chemical inputs, and highway subsidies? Meanwhile our own agriculture wilts, as do the communities that depend on it.

The GPI study has a list of recommendations, saying we could drop our ecological footprint to seven hectares quickly and easily, and improve our health in the process, by reducing auto use, buying more local foods, eating right, altering public policy to favour ecologically sound solutions in transportation, energy and agriculture, and so on.

There are instances here and there in the world where little victories of that sort occur. Recycling of garbage in Nova Scotia is one of them. But they tend to happen only when people are forced by some crisis - no more room for landfills, for example - and make up only a small part of the larger reality which is steamrolling the other way.

Personally, I've come to believe that we're not really going to change our ways before we hit a brick wall, as we nurse the illusion that the free market and magical new technologies will set everything right.

When we do crack up, reports like this one will be dusted off and sound downright prophetic.

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Wednesday March 28, from The Halifax Chronicle-Herald:

Betting on human ingenuity

By Brian Lee Crowley

The False Prophets of doom are at it again. Something in the human psyche believes that good fortune is the product of undeserved luck, and that we will be punished tomorrow for enjoyment and success today. As the mother of an old friend used to say, whenever he would exult about a fine summer's day, "Aye, laddie, and ye can be sure we'll pay for it later."

Thomas Malthus earned economics the nickname of "the dismal science" in the 18th century by observing that the population was growing faster than the food supply. He predicted mass starvation.

In the 1970s, the Club of Rome predicted massive shortages of natural resources due to overconsumption and overpopulation, with disastrous effects on human health and material well-being.

On the front page of this newspaper recently, it was claimed that the resources of four more planets would be needed to maintain us at our current levels of consumption. We were exhorted to give up cars for bicycles.

Time and again, people have looked at growing human prosperity, improving health and population increase and told us that we were living in a fool's paradise, that it obviously couldn't continue, that our prosperity was at the cost of others such as the poor or future generations, and that we would pay the price for our irresponsible wickedness.

We're still waiting.

The reason we're still waiting, why the ecosystem hasn't collapsed, why we are still successful in feeding ourselves, why incomes are rising and health status improving around the globe is that the doomsayers have completely misunderstood the way the world works.

Of all their misunderstandings, two stand out. They don't understand what natural resources are. And they don't understand that the greatest natural resource of all is human ingenuity.

It may be popular, but it is quite incorrect to think of natural resources as exhaustible, as something of which there is only so much and when we use it up, it is gone forever. If, for example, natural resources were actually getting scarcer, then the price would go up. That's part of what prices are for, to signal shortages and availability.

But the price of natural resources has been in decline for centuries. Remember the famous bet between ecologist Paul Ehrlich and economist Julian Simon. Simon bet Ehrlich that the prices of any five natural resources Ehrlich chose would drop over a 10-year period, whereas Ehrlich, inspired by the Club of Rome, was convinced that we were on the cusp of huge shortages driven by overconsumption and population growth. Ehrlich paid up in 1990.

Ehrlich, like his many forerunners, forgot that shortages and rising prices are an opportunity. Malthus didn't foresee that farmers could become hugely more productive in response to rising demand for food, eventually unleashing this century's Green Revolution. Aquaculture, hydroponics and other technologies will allow us to keep feeding the world's population, probably at a declining real cost. And note that we in the West do not feed ourselves at the expense of people in the Third World. On the contrary, it is Western innovation that has largely made it possible for the burgeoning populations of the world to be fed. Human ingenuity has vastly increased the carrying capacity of the planet. And we are nowhere near the limit of what such innovation and inventiveness can accomplish.

That's the other thing that the pessimists haven't understood. Human beings are not simply parasites on the bounty of nature. The two greatest forces now shaping the world are nature and human ingenuity, and the latter is our greatest natural resource. We now require less and less land to feed each human being. We need less and less steel for each car and copper for each telephone connection and gas for each mile travelled than we ever did before. Those resources are valuable, and it makes no sense to use more than the minimum necessary in each instance. And that minimum is falling all the time, because it pays to make it fall. When things get in short supply, human ingenuity comes up with cheaper alternatives, or invests time and intelligence in increasing the supply, both of which ease the shortage.

As the successful bettor, Julian Simon, once said, "The ultimate resource is people, especially skilled, spirited, hopeful young people who will exert their will and imagination for their own benefit and in doing so, will inevitably benefit the rest of us as well." All that can hold us back, he said, is our fear and lack of imagination. When those come to dominate our thinking, the result is policies that restrain freedom, curtail choices, and dampen the spirit of enterprise and experimentation. Yet freedom, choice and enterprise are the only forces that can master and overcome humanity's challenges.

Brian Lee Crowley is president of the Atlantic Institute for Market Studies, a public policy think tank in Halifax.

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31 March, 2001

Optimism and Sober Reality: We Need *Both*!

In The Chronicle-Herald ("Betting on Human Ingenuity," 28 March), Brian Lee Crowley states that "it is quite incorrect to think of natural resources as exhaustible." Those who think so, he says, are "pessimists" and "false prophets of doom." If "natural resources were actually getting scarcer," he argues, "then the price would go up" and "human ingenuity comes up with cheaper alternatives, or invests time and intelligence in increasing the supply."

I would like to invite Mr. Crowley to come fishing – salmon, trout, or cod perhaps? – because we need his ingenuity to increase a few supplies:

- According to the Atlantic Salmon Federation, "Canada's wild Atlantic salmon runs have declined by 80% during the past 25 years." Salmon are currently extinct in 22% of Nova Scotia rivers, seriously depleted in 25%, and have only remnant populations in 32% more. All of these rivers were once abundant with salmon.
- Nova Scotia brook trout have declined by 50% since 1985.
- Overall recreational fish catches in Nova Scotia are down 70% since 1975.
- Cod and ground fish stocks have not recovered despite "human ingenuity," "time and intelligence."

Where were the price signals to prevent the cod stock collapse and the salmon decline? Yes, our lobster exports are booming. But tell that to the salmon anglers, the sports fishers, and the 40,000 people thrown out of work when the ground fish stocks collapsed. Can we calmly abide the loss of a resource and blithely substitute another?

Or Mr. Crowley may wish to join me for a walk in the woods to search for one of our few remaining old trees. Only 0.6% of our old-growth forest remains in Nova Scotia. Soil scientists tell us we have lost 30-40% of our soil organic matter in eastern Canada in the last 40 years. Biologists crunch the numbers and find we are losing plant and animal species at an unprecedented rate – 1,000 times the natural rate in fact. "Pessimism" or sober science?

I am not sure which planet Mr. Crowley is referring to, where natural resources are inexhaustible, and in which supplies can magically be increased by human ingenuity. In the planet on which I live, human ingenuity must be applied to the responsible conservation and stewardship of natural resources.

But that reality does not mean I am a pessimist. On the contrary, Mr. Crowley, I am an incurable optimist. My faith in human ingenuity is reinforced:

- by our remarkable 50% diversion of solid waste in just five years;
- by the dedicated restoration forestry practised by wood lot owners in New Germany and Pictou Landing;
- by Bear River's ingenious Solar Aquatic sewage and waste water treatment system;
- by the Western Valley Development Authority's innovative exploration of wind energy;
- by the Nova Scotia Salmon Association's outstanding "Adopt-A-Stream" restoration projects, and
- by many other inspiring models of responsible stewardship that show us the way forward to a more sustainable future.

The reason price signals have failed to signal resource decline and collapse is that we don't count the value of natural resources in our standard economic growth measures. In fact, the more fish we sell, the more trees we cut down and the more quickly we deplete our resources, the faster the economy will grow and the "better off" we think we are.

No wonder the market can't respond effectively to signals from nature, when nature's services are regarded as free, value-less and inexhaustible in our economic accounting mechanisms.

That's why Mr. Crowley's Atlantic Institute for Market Studies needs a little help from an Atlantic Institute for *Non-Market* Studies to incorporate natural resource values into market mechanisms so that prices *will* effectively "signal shortages and availability" of resource stocks, as he wishes.

That is the reason we are now constructing a Genuine Progress Index for Nova Scotia that *includes* the value of our natural resources. GPI Atlantic looks forward to working with AIMS to achieve our common endeavour.

In the meantime, our differences have nothing to do with pessimism and optimism. But I do have a 9-year-old daughter and I will not entrust her future to naïve or wishful thinking.

My optimism is grounded in the sober recognition that our resources *are* finite and exhaustible, and that it will require hard-nosed practical action and dedicated resource conservation to ensure that the world my daughter inherits is not a depleted one.

I am also completely confident that we *can* marshal the very best of human intelligence and ingenuity to ensure a healthy and prosperous future for our children.

Ronald Colman, Ph.D
Director, GPI Atlantic

FROM SOCIAL EXCLUSION TO WHAT?

Presentation to New Brunswick Reference Group Forum on Community Investment for Social Inclusion, March 15, Miramichi, N.B., sponsored by Health Canada
By Ronald Colman, Director, GPI Atlantic

We are very familiar with the costs of exclusion. For example, we know that high poverty rates among single mothers produce high rates of child poverty and high social costs in poor health, poor employment opportunities and poor educational outcomes among youth, which in turn are associated with higher crime, drug use and delinquency rates. We also know that poverty and exclusion are costly. For example, low-income women have a 75% higher rate of hospitalization than women with adequate incomes.

But the language of "exclusion-inclusion" implies that we want to move from A to B. We *know* the problems and costs of "A", but do we know what we mean by "B"? Do we know where we are headed? What is the society in which we want to "include" people? Is that society defined by higher incomes? Stable, secure, full-time employment? A university education? A ranch house in the suburbs with a car (maybe two) in the driveway?

BUT the over-consumption, overwork, and questionable education that increasingly characterize the lives of our "included" suburbanites may be a highly misguided model that by definition *excludes* future generations as well as millions of the world's poor. For example, if everyone in the world were to consume at the rate of the average "included" New Brunswicker, we would need four more planets earth to provide the necessary resources and to absorb the waste that our consumption produces. If our measure of inclusion is based on *consuming* more, then we may be *excluding* our children and our children's children by leaving them a poorer, depleted natural world.

Just as the current generation is paying now (with higher student tuition, increased debt, and reduced government services) for our overspending in the 1970s and 1980s, so we are now accumulating an environmental debt for which future generations will pay. We are already seeing that debt being paid in the collapse of the Atlantic ground-fish stocks, the degradation of our forests and soils, the loss of species, global warming, higher rates of child asthma, and new environmental illnesses that were unknown 20 years ago.

The earth's resources and waste absorption capacities are finite. It is an illusion to think that more production and more growth will "lift all boats" on an ever "rising tide." In nature, which thrives on balance, on equilibrium, and on *limits* to growth, there is no such thing as an ever rising tide. The only organism that emulates our current economic dogma and thrives on limitless growth is the cancer cell.

If by "inclusion" we mean our current materialist, consumer society, then we will satisfy our desires either at the expense of future generations, or else we literally *need* millions

of the world's citizens to live in poverty. We cannot in good conscience speak of alleviating poverty without *also* talking about curbing the excess consumption of our "included" citizens. From the perspective of a world of limited resources, the issue is one of *distribution* and a need for greater *equity* rather than ever more production. For some to meet their basic needs, others need to exercise restraint. We cannot speak of overcoming "exclusion" without profoundly reexamining current patterns of "inclusion."

We may ask the same question about our model of inclusion in the realm of employment. According to Statistics Canada, we are working longer and longer hours to make ends meet, to make payments on our house and car, and to maintain our present lifestyles. We are getting more and more stressed out and burned out. Rates of time stress are rising across the country and, according to a new Statistics Canada study, producing adverse health outcomes. Long work hours are associated with higher rates of overweight and smoking, poor diets, and lower rates of physical exercise.

We are spending less time with our own children and farming them out more and more to strangers. As a household, the average dual earner couple with children today works longer paid plus unpaid hours (134 hours) than families a hundred years ago (114 hours). Our overwork is literally squeezing out volunteer work time, which has declined by 8.7% across the country since 1992 alone. Is this typical dual-earner model our vision of an "inclusive" society?

And we can extend the question to education. We conventionally measure progress by the number of graduates per capita and other quantitative production-line measurements. But what is the *quality* of education today? What is really going on inside the classroom? Are we producing a wiser, more knowledgeable, more tolerant, aware and compassionate citizenry?

And we may ask whether our fast-track, high-wage, suburb-and-car model has come at the expense of community? Today in New Brunswick we are three times more likely to be victims of crime compared to 30 years ago. We are more likely to lock our doors. A recent poll in the USA found that most people had more possessions, higher income, and "better" jobs than their parents, but less than half classified themselves as "happier" than their parents. If we define "inclusion" in materialist terms, we may be creating a questionable model for those currently "excluded."

In short, just as the notion of "development" sometimes assumes that the "underdeveloped" or "developing" nations are going to become more like the "developed" nations (i.e. the west), we have to be very careful in our use of "exclusion" and "inclusion". We know the costs of exclusion very well – it is pointless to romanticize poverty. But are there not also profound costs of *inclusion,* if by inclusion we mean our conventional income, employment and housing patterns? And might those costs not be paid by future generations as well as by citizens of the world at far distances?

What I am suggesting is that our discussions on exclusion and inclusion must incorporate a profound critique of current (and widely accepted) social patterns and a deep questioning about the kind of society in which we want to include people. Otherwise we may be perpetuating a problem rather than solving it. At a very minimum, we cannot talk about alleviating the poverty and exclusion of the "have-nots" without also talking about curbing excess consumption among the "haves" and promoting greater equity. This is not a matter of ideology and politics, but of a simple description of available resource availability and use.

We may wish to seek our inspiration in models of development that are quite different from the current society in which we now want to include people. If we keep measuring how "well off" we are as a society according to how fast our economy is growing and how much we are spending, our direction will be seriously skewed.

A fundamental purpose of the Genuine Progress Index is to measure our wellbeing and quality of life in terms that go beyond the pervasive materialism of our society – that measure progress towards stronger and more caring communities, towards greater equity, towards greater livelihood security (rather than material accumulation), towards better health and greater wisdom, towards environmental quality and natural resource health.

If we can begin to define our "inclusive" society in those more "inclusive" terms, our work can have a clearer purpose and direction. We will not only be certain about the barriers of exclusion we need to overcome. We will also have a clearer sense of vision of where we want to go.

We will likely find powerful models of inspiration among the very "excluded" people we want to assist. To end with one concrete example: The Pictou Landing First Nations band in Nova Scotia decided in 1993 to reverse centuries of forest clearcutting and degradation by adopting restorative forest practices that would gradually bring the resource back to the conditions enjoyed by their ancestors. The forest has become a focal point for restoring the health of the community and bringing band members back to their ancient culture.

The Pictou Landing forest recently became the first woodlot in Nova Scotia to receive international Forest Stewardship Council certification for sustainable forest practices, and has become a model for its neighbours and other bands. It *should* (and it can) become a model for the whole province.

Among the people with whom we work, -- often the most "excluded," -- we will find many other shining models of the kind of society we want to create. Who knows? Maybe many of those currently "included" will find they have a lot to learn! And our new "inclusive" society may look very different from the current model of those conventionally considered to be fortunate. Certainly it will *have* to be very different if we want do not wish to exclude our children and our children's children from a healthy and sustainable future.

HIV/AIDS Costs Canadians $2 billion a year

In January, 2001, GPI Atlantic released a short report (11 pages) that found HIV/AIDS costs Canadians more than $2 billion a year in direct and indirect costs. Of this total, $600 million is spent in direct health care costs, including hospitals, physician visits, drug costs and home health care expenses. Economic production losses due to premature death and disability are estimated at $1,450 million a year.

The reason indirect economic costs through lost production are so high is that HIV/AIDS still claims its victims at a younger age than any other major cause of death, including car accidents, suicide, stroke and heart attack. This remains true despite the effectiveness of drug treatments in gradually increasing the longevity of AIDS victims, from an average of death of 36 years in 1990 to 41 years in 1999.

The GPI study, entitled *The Cost of HIV/AIDS in Canada,* and authored by Colin Dodds, Ronald Colman, Carol Amaratunga and Jeff Wilson, is the fourth in GPI Atlantic's series of health reports and was prepared for the Maritime Centre of Excellence for Women's Health. Previous GPI health reports include *Women's Health in Atlantic Canada, The Cost of Tobacco in Nova Scotia,* and *The Cost of Obesity in Nova Scotia* (since replicated for seven other provinces.) All are available on the GPI web site at www.gpiatlantic.org

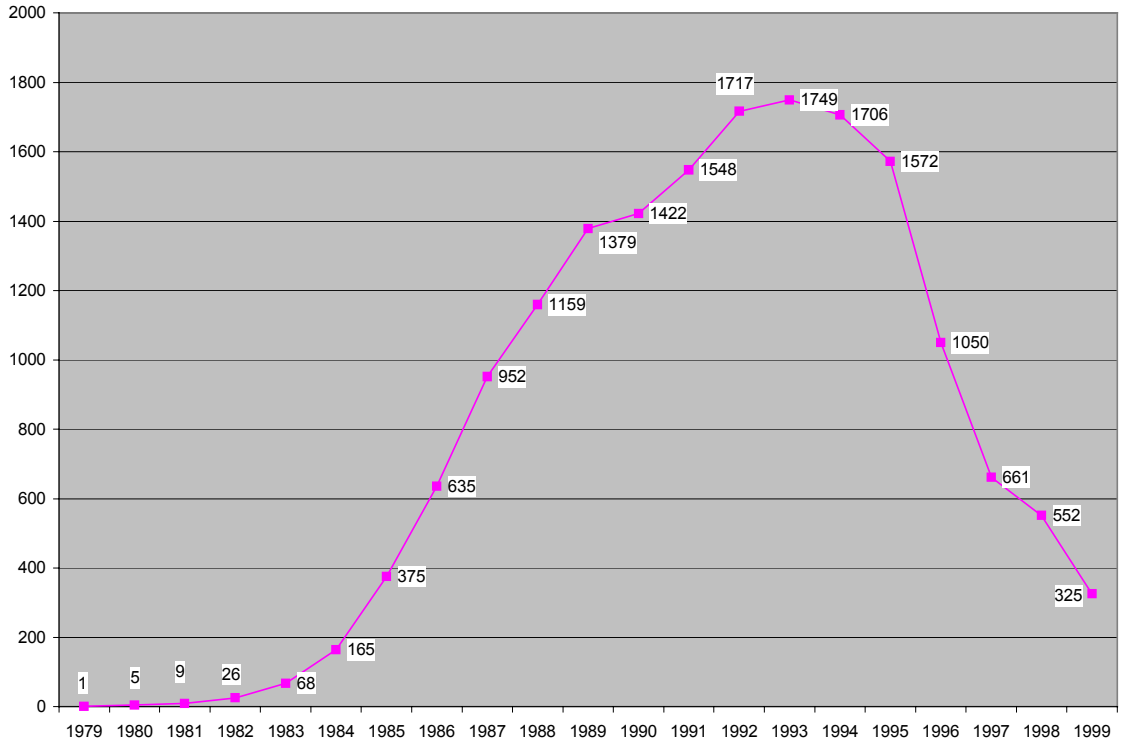
The GPI study found that the distribution of health care costs due to HIV/AIDS shifts dramatically as the disease progresses. Early stages of the illness are characterized by a relatively high proportion of drug costs, primary and community care, and outpatient visits. Later stages are marked by longer in-patient hospital stays, which account for 68% of health care costs in cases of full-blown AIDS, but only 19% of costs for those in the early stages of HIV.

As of June 30, 2000, there had been a cumulative total of 47,000 positive HIV tests in Canada, of which 17,165 have turned into AIDS. Of those, 70%, or 12,088 Canadians, have died of the disease. According to those official figures, there are currently about 35,000 Canadians living with HIV/AIDS. But Health Canada estimates that an additional 15,000 Canadians are HIV positive, but have not been tested and are unaware of their infection. This means that about one in 500 Canadians has been infected with the virus.

Signs of Genuine Progress

Despite these sobering statistics, the rapid spread of HIV/AIDS in Canada in the late 1980s and early 1990s has now been dramatically reversed. There were 25.4% fewer HIV positive tests in Canada in 1999 than in 1995, reflecting the marked success of education and prevention investments. There were also 80% fewer AIDS cases, and 92% fewer AIDS deaths, reflecting the success of drug therapies and HIV-management methods (especially HAART treatments – high activity antiretroviral therapies) that delay the onset of AIDS and prolong the lives of those infected (Figure 1).

Figure 1: The Steep Decline in New AIDS cases in Canada



Source: Health Canada, *HIV and AIDS in Canada: Surveillance Report to June 30, 2000*

If AIDS deaths had continued at 1995 levels (1,427 for that year), there would be 3,906 fewer Canadians alive today. While cumulative AIDS cases in 2000 were still 20% higher than in 1995 (because previous HIV cases continue to turn into AIDS), they were only 10% higher than in 1996, 7% higher than in 1997, 4% higher than in 1998, and 2% higher than in 1999.

This means that we are fast approaching the point in Canada where it will be possible to report an absolute decline in cumulative AIDS cases, and consequent dramatic savings in health care costs. In economic terms, the productive capacity of the Canadian economy is already $123 million larger today than it would be without the lives saved through successful prevention and management of AIDS.

The best news, in both human and economic terms, is that education and prevention clearly work, having sharply reduced new HIV infections in Canada. According to Health Canada, "the dollar cost of preventing a case of HIV/AIDS is only a fraction of the cost of treating and caring for someone once he or she becomes infected." Because of the enormous economic burden of HIV/AIDS, prevention strategies are particularly cost effective for this disease.

BUT…….
This good news story, is severely tempered by two contrary trends, one in Canada, and one outside:

The Changing Profile and Gender Dimension of HIV/AIDS in Canada

Men still represent 87% of the cumulative total of positive HIV tests in Canada. But the balance is changing dramatically. Between the period 1985-1994 and 1999, the female proportion of HIV+ tests increased from 10% to 25% of the total. Women also represent an increasing proportion of AIDS cases diagnosed each year.

The proportion of new HIV infections due to male homosexual activity has dropped sharply from 75% of total infections in the period 1985-1994 to 38% today. Since 1995 alone, there has been a 38% decline in the number of new infections attributable to male homosexual activity.

By contrast, the number of new HIV infections due to heterosexual activity has more than doubled since the late 1980s and risen by 26% since 1995 alone (Figure 2). As a percentage of total cases, new infections attributable to heterosexual activity rose from 6% in the period 1985-1994 to 19% today. As well, the percentage of new HIV infections attributable to intravenous drug use has risen from 9% of all cases during 1985-1994 to 28% in 1999.

There has also been a marked shift in the social profile of HIV/AIDS sufferers with lower rates of HIV infection among middle class gay men and higher rates among vulnerable populations, including the poor, unemployed, minorities, poorly educated, aboriginals, and those involved in "street activity." Since 1984, the number of AIDS cases among Aboriginal Canadians has risen steadily, particularly among women and those under 30, and rates of infection in the Canadian prison population are estimated to be at least ten times greater than in the general population.

The growing association of HIV/AIDS with social exclusion indicates that continued future reductions in HIV/AIDS incidence in Canada will increasingly depend on alleviation of underlying social and economic causes. Disease-specific prevention and management have limited effectiveness in reaching marginalised groups.

The Shocking Devastation of AIDS in Africa

However, it is hardly possible to celebrate unequivocally Canadian successes in stemming the HIV/AIDS epidemic so long as the disease spreads unchecked in Africa and elsewhere. Indeed, the contrast is so stark, and the drain on the resources of developing nations so enormous, to say nothing of the immense burden of human suffering and premature death, that there can be no delay in applying strategies proved successful in Canada where the need is greatest.

HIV/AIDS has afflicted one in twelve sub-Saharan Africans compared to 1 in 500 Canadians, and AIDS is now the main cause of death in Africa. Globally, AIDS killed 2.6 million people in 1999, including half a million children, an increase of more than 70% in just three years. It is now the fourth biggest killer in the world, after heart disease, stroke and respiratory disease, and it kills more people than any other infectious disease.

There are now 34 million adults and children in the world living with HIV/AIDS, nearly 70% of them in sub-Saharan Africa. Of those, 55% are women. The disease is spreading so rapidly that one in six of the 34 million AIDS victims became infected in 1999 alone.

The social and economic burden of the illness in Africa is devastating: Children are orphaned and left without teachers. 25% of Ugandan households are providing for an orphan. HIV infection rates of up to 40% are reported among teachers in Malawi, Namibia and Zambia. 12% of all educators in South Africa are HIV positive, and one in 25 Botswana children have lost a teacher to AIDS.

An HIV/AIDS sufferer in Rwanda is 36 times more likely to use hard-pressed outpatient health services than the general population, and annual health care expenditures for HIV/AIDS patients are 21 times greater than for the general population. Because AIDS claims its victims at a young age, the indirect economic costs of lost productivity are enormous. A World Bank analysis of 80 developing countries estimated that a 15% HIV prevalence rate reduced per capita GDP growth by 1%.

Rather than becoming complacent about HIV/AIDS due to successes at home, therefore, it is incumbent upon Canada to apply its successful experience abroad. It is essential to provide the necessary resources for education and prevention in the developing nations, and to facilitate the low-cost provision of drugs that can assist HIV patients to manage the disease successfully.

That assistance should not be regarded as a "cost" but as an "investment" that will reduce the appalling costs of the disease and has already been proven to do so in Canada. Economic analyses clearly demonstrate that such investments in education, prevention and disease management can be highly cost effective, producing enormous savings in direct health care costs and retained productive capacity.

The GPI Atlantic report therefore concludes that applying successful Canadian strategies where the need is greatest is not only the “right” thing to do, but is an excellent and cost-effective investment that can markedly reduce the enormous economic burden of the illness in developing nations.

The Cost of HIV/AIDS in Canada (11 pages), January, 2001, is available from the GPI bookstore at www.gpiatlantic.org for $10.00 plus tax.

Closing Note to Friends of GPI: You Can Support What You Value

The way we measure progress can significantly shift the policy agenda from its present purely economic focus to a broader view of well-being and quality of life that reflects our shared aspirations as human beings. If we are to shift course from some of the destructive patterns we currently embrace and to plan a better future for our children, we can begin by counting and valuing what really matters.

As a non-profit group, GPI Atlantic depends on donations and funding support. Most of the GPI research, data collection and analysis, and community development work is provided on a voluntary basis. Your financial support will enable our staff to devote more time and effort to their GPI work.

Donations to GPI Atlantic (Box 489, RR#1, Tantallon, N.S. B0J 3J0, Canada) will be gratefully acknowledged. Please share this issue of *GPI News* with your friends and associates, and encourage subscriptions and memberships ($95 individual and non-profit, $190 corporate and government, $45 student, plus applicable taxes).

Members receive future issues of *GPI News*, a 25% discount on all GPI reports and publications, four issues of *Reality Check: The Canadian Review of Wellbeing* (to be published later this year), and a free copy of GPI Atlantic's *Ecological Footprint* analysis (100 pages)..

Thank you for your support and your interest.

Ronald Colman, Ph.D
Director, GPI Atlantic

Visit our Web Site

Please visit our web site at www.gpiatlantic.org and stay in touch with our work. The web site provides:

- free on-line articles, press releases and media clippings on the GPI work;
- a summary of current activities and presentations;
- publication abstracts and ordering information;
- an update of progress on the community GPI;
- a list of our board of directors and researchers;
- membership information.

Please note that GPI Atlantic has a new phone number: 902-489-7007, and please join us at our Annual General Meeting 7pm-9.30pm May 3 at the World Trade and Convention Centre, Halifax, 7th floor boardroom.