Annual Report
2001-2002

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. . . a basis for informed health care decisions . . .

Board Chair And President's Introduction

Conducting health technology assessment in a health care system that serves many jurisdictions of widely varying sizes and geography can be challenging. CCOHTA rose to the challenge in extraordinary fashion this year, making substantial progress on every priority outlined in our five-year business plan (*Into The New Millennium: A Business Plan*), which was approved by the Conference of Deputy Ministers of Health effective April 1, 2000.

Eleanor Hubbard and Jill M. Sanders

After a year devoted to capacity building in 2000-2001, CCOHTA hit its stride this year, meeting and in many cases exceeding the targets set out in the business plan.

We published twice as many Technology Reports this year as we did in 2000-01 and launched two new series of early assessment publications through our Canadian Emerging Technology Assessment Program. Our projects covered a wide range of topics, including videoconferencing in telehealth, new drugs for influenza, drug treatments for Alzheimer's disease and autism therapies for preschool children.

Our outreach activities took CCOHTA staff from coast to coast and as far afield as Brazil, England and Australia. We also developed productive relationships with a variety of key organizations.

As the year came to a close, CCOHTA accepted a new challenge when we were selected by the Conference of Deputy Ministers of Health in March 2002 to house the interim Common Drug Review Secretariat. This initiative will reduce duplication of effort by federal/provincial/territorial drug plans and ensure that limited resources are being put to the best possible use. A permanent common drug review may be in place by next year, which would have a significant impact on CCOHTA.

These are exciting times in the health sector and HTA is gaining momentum as a critical decision-making tool. CCOHTA's key role in providing decision makers with clear, unbiased, reliable information can help to ensure that our health system remains relevant to the evolving needs of Canadians. With our HTA work and now with the interim Common Drug Review, we will continue to strive to provide a basis for informed health care decisions.

Sincerely,

Dr. Jill M. Sanders
President

Eleanor Hubbard
Chair, Board of Directors

Overview

Background

The Canadian Coordinating Office for Health Technology Assessment (CCOHTA) is an independent not-for-profit research organization founded in 1989 and funded by the federal, provincial and territorial (F/P/T) governments. CCOHTA was established to provide unbiased, reliable information about health technology to policy makers and decision makers throughout Canada's publicly funded health care system.

CCOHTA reports to the F/P/T Conference of Deputy Ministers of Health through a Board of Directors comprising delegates appointed by the Deputy Ministers.

As the national voice for health technology assessment in Canada, CCOHTA strives to increase access to and use of evidence as a basis for informed decisions about the use of health technologies in Canada.

Mission Statement

To encourage the appropriate use of health technology by influencing decision makers through the collection, analysis, creation and dissemination of information concerning the effectiveness and cost of technology and its impact on health.

Strategic Priorities

CCOHTA's five-year business plan (*Into The New Millennium: A Business Plan*) identified the following strategic priorities:

1. *CCOHTA will enhance its ability to identify and assess new or emerging health technologies.*
2. *CCOHTA will strengthen and consolidate its communications and dissemination functions.*
3. *CCOHTA will undertake the development of a consultative process involving the key stakeholders, which will lead to the coordination and regular review of technology assessment priorities and targets.*
4. *CCOHTA will strengthen and expand its capability and capacity to conduct assessments.*
5. *CCOHTA will improve its ability to collect, integrate and synthesize assessment results from the work undertaken by the national and international medical research and technology assessment communities, effectively leveraging CCOHTA resources.*
6. *CCOHTA will create an environment where the technology developers are aware of and sensitive to the priorities of the health care system, familiar with the expectations and methodologies of HTA and employ assessment results in their strategic planning processes.*

CCOHTA strives to increase access to and use of evidence as a basis for informed decisions

HIGHLIGHTS

Highlights

- In fiscal 2001-2002, CCOHTA published 32 peer-reviewed HTA reports:
  - *12 Technology Reports*
  - *5 Technology Overviews*
  - *15 Issues in Emerging Health Technologies*
- CCOHTA introduced two new series of rapid health technology assessments. The Emerging Drug List and Emerging Technology List series are web-based documents that highlight medical technologies that may have a significant impact on health care in Canada while they are still at an early stage of development. In fiscal 2001-2002, CCOHTA published:
  - *29 Emerging Drug List alerts*
  - *13 Emerging Technology List alerts*
- The Pre-assessment series, based on limited literature searches conducted during the feasibility stage of a full HTA, was introduced as a web-based resource to provide a quick guide to current HTA information on a topic. In fiscal 2001-2002, CCOHTA published five Pre-assessments.
- In October 2001, CCOHTA published the first comprehensive inventory of seven types of high-tech equipment in publicly funded sites across Canada.
- CCOHTA launched its outreach program with well-attended workshops in St. John's, Newfoundland and Labrador and Charlottetown, Prince Edward Island. These workshops were planned, organized and presented with the active support of the provincial health ministries.
- *Listening for Direction: A national consultation on health services and policy issues* was published in June 2001. CCOHTA was one of six partners involved in this national effort to identify, through consultation with policy makers, the critical research themes for future applied health services and policy research. The Canadian Health Services Research Foundation was the lead agency.
- CCOHTA introduced the Report in Brief in February 2002. A high-level, one-page summary of the key findings of full health technology assessments, the Report in Brief is published in the front of Technology Reports and Overviews. It is ideal for e-mail or fax distribution.
- CCOHTA established a Secretariat to support the interim Common Drug Review in March 2002.

Health Technology Assessment Research

Health Technology Assessment Research

About HTA

Health Technology Assessment (HTA) is the process of systematically evaluating the effectiveness, cost-effectiveness and impact, both on patient health and on the health care system, of medical technology and its use.

HTA supports health care decisions at the local, regional, provincial and national levels

The primary purpose of HTA is to support health care decisions and policy making at the local, regional, provincial and national levels by ensuring that policy makers have access to reliable, impartial, timely information.

Does the technology work? For whom? At what cost? How does it compare with the alternatives? These are the fundamental questions HTA addresses. When appropriate, HTA also addresses ethical, legal and social questions, including quality of life issues.

CCOHTA's research program focuses on health technology issues of national concern related to medical devices, pharmaceuticals and health systems.

How CCOHTA Produces an Assessment

CCOHTA has a very good reputation internationally because of the quality and rigour of its research. Most full HTA projects involve the following seven steps:

Step 1: Selecting topics for assessment

Anyone can propose a topic for assessment through CCOHTA's web site. Topics are screened, selected and prioritized by CCOHTA's advisory committees, with assistance from CCOHTA's Scientific Advisory Panel. CCOHTA's Board of Directors sets the final assessment topics and priorities. Given the rapid proliferation of new health technologies, the highest priority projects are chosen to proceed.

Step 2: Defining the research question

CCOHTA researchers prepare a pre-assessment of the existing evidence on each selected topic. CCOHTA defines one or more specific research questions for each approved topic, with the assistance of the CCOHTA advisory committees. Project objectives are then developed to address these questions.

Step 3: Forming a project team

Once specific research questions and objectives are defined for an approved topic, a multi-disciplinary team of researchers is assembled. Typically, the lead is a CCOHTA researcher and the team includes experts with proficiency in areas such as clinical care, epidemiology, pharmacology, ethics and health economics. Each project team includes a CCOHTA information specialist and one or more members of CCOHTA's Scientific Advisory Panel.

Step 4: Assembling the evidence

HTAs are based on analysis of existing evidence; the literature search is, therefore, a critical component of HTA. An information specialist systematically searches the literature to find all available information, published and unpublished, relevant to a report's objectives. The information specialist searches through:

- Web sites of Canadian and international HTA agencies
- Electronic databases of published literature
- Registers of clinical trials (completed and in progress)
- Journals, grey literature and conference proceedings
- Reference lists from relevant primary and review articles
- Manufacturers' web sites

The lead researcher also solicits information directly from technology manufacturers, authors of reports and other experts.

Step 5: Synthesizing and interpreting the evidence

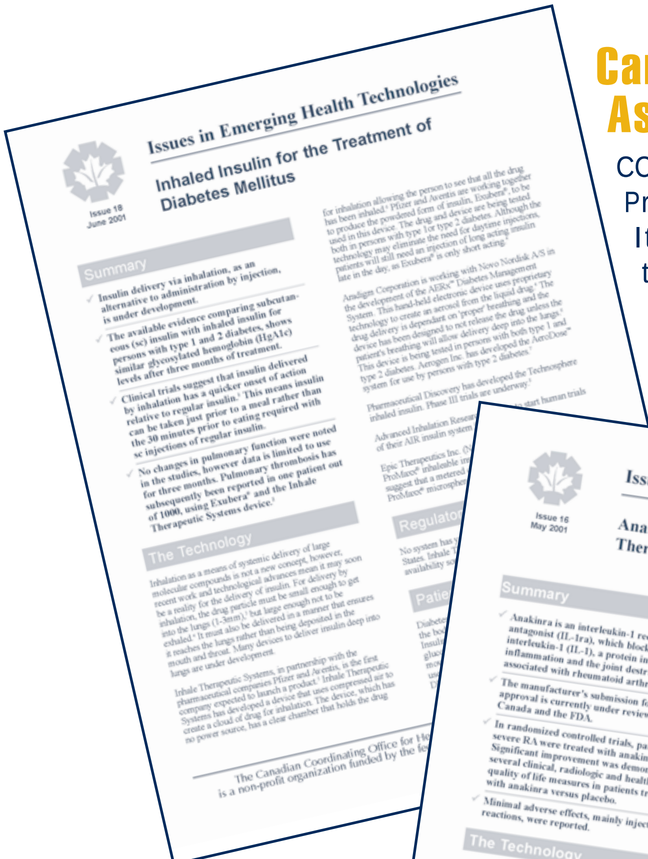
The authors of CCOHTA reports follow well-defined processes to analyze the literature, endeavouring to minimize bias and ensure transparent, reproducible results.

Step 6: Reviewing the report

Every assessment undergoes an extensive internal and external review process that may include methodologists, clinicians and industry. The number of review cycles depends on the particular project. The project team addresses all comments from reviewers and modifies the report as necessary through several review cycles before a final report is approved.

Step 7: Publishing and disseminating

The report is processed for publication and dissemination in print and electronic versions, in both English and French. CCOHTA takes sole responsibility for the final format and content of all of its reports.



Issues in Emerging Health Technologies

Issue 18
June 2001

Inhaled Insulin for the Treatment of Diabetes Mellitus

Summary

- Insulin delivery via inhalation, as an alternative to administration by injection, is under development.
- The available evidence comparing subcutaneous (sc) insulin with inhaled insulin for persons with type 1 and 2 diabetes, shows similar glycosylated hemoglobin (HgA1c) levels after three months of treatment.
- Clinical trials suggest that insulin delivered by inhalation has a quicker onset of action relative to regular insulin. This means insulin can be taken just prior to a meal rather than the 30 minutes prior to eating required with sc injections of regular insulin.
- No changes in pulmonary function were noted in the studies, however data is limited to use for three months. Pulmonary thrombosis has subsequently been reported in one patient out of 1000, using Exubera and the Inhale Therapeutic Systems device.

The Technology

Issues in Emerging Health Technologies

Issue 16
May 2001

Anakinra: Interleukin-1 Receptor Antagonist Therapy for Rheumatoid Arthritis

Summary

- Anakinra is an interleukin-1 receptor antagonist (IL-1ra), which blocks interleukin-1 (IL-1), a protein involved in the inflammation and the joint destruction associated with rheumatoid arthritis (RA).
- The manufacturer's submission for drug approval is currently under review by Health Canada and the FDA.
- In randomized controlled trials, patients with severe RA were treated with anakinra. Significant improvement was demonstrated in several clinical, radiologic and health-related quality of life measures in patients treated with anakinra versus placebo.
- Minimal adverse effects, mainly injection site reactions, were reported.

The Technology

Regulatory Status

Patient Group

The Canadian Coordinating Office for Health Technology Assessment (CCOHTA) is a non-profit organization funded by the federal, provincial and territorial governments.

Canadian Emerging Technologies Assessment Program

CCOHTA's Canadian Emerging Technologies Assessment Program (CETAP) is a national horizon scanning program. It alerts decision makers to upcoming drugs, devices and systems (e.g. surgical procedures) that are likely to have a significant impact on the delivery of health care in Canada. This helps decision makers anticipate, plan and manage the introduction and diffusion of new technologies.

Piloted in 1997, the program is now a permanent aspect of CCOHTA's research program. CETAP is the only program of its kind in Canada.

Assessments this year included such topics as the contraceptive patch, inhaled insulin, robotic surgery, knee replacement surgery and blood substitutes.

HTA Publications - Completed in 2001-2002

HTA Publications - Completed in 2001-2002

Description of CCOHTA Products

CCOHTA publishes different series of HTA reports in print and electronic formats to address the various information needs of decision makers.

CCOHTA launched two new series of rapid HTAs in 2001-02 in response to the increasing number of new technologies

Technology Reports

Technology reports are comprehensive HTAs - critical appraisals of the literature performed to rigorous standards to eliminate bias and provide a clear picture of the clinical effectiveness, cost-effectiveness and/or impact of health technologies in Canada.

Technology Overviews

Technology Overviews are summaries of CCOHTA's larger Technology Reports.

Issues in Emerging Health Technologies

Through CETAP, CCOHTA publishes Issues in Emerging Health Technologies, a series of bulletins highlighting technologies that are not in widespread use in Canada. Bulletins describe the regulatory status of emerging technologies, the affected patient group, current procedures, costs, concurrent developments, adverse effects, the scientific evidence and issues associated with the introduction of the technology into the health care system. Each bulletin is peer-reviewed and produced in print and electronic versions.

Emerging Drug List and Emerging Technology List

In response to the increasing number of emerging drugs and devices, CCOHTA launched two new series of rapid HTAs in 2001-02: the Emerging Drug List and the Emerging Technology List. These series highlight medical technologies that may have a significant impact on health care in Canada while they are at an early stage of development. The contents are based on evidence from early experience with the technology. These summaries are provided only in an electronic format (on the CCOHTA web site and through an electronic notification service) and are not peer-reviewed. The emerging drug list series is produced in collaboration with the Ottawa Valley Regional Drug Information Service (OVRDIS).

Pre-assessments

Before CCOHTA decides to undertake a full HTA, a pre-assessment of the literature is performed. Pre-assessments are based on a limited literature search; they are not extensive, systematic reviews of the literature. In February 2002, CCOHTA began publishing pre-assessments of topics that would not proceed to a full assessment as a quick guide to important current information on the topic.

HTA Publications - Completed in 2001-2002

Report	Length (pages)	Time to Complete (months)	Peer Reviewed	Available	Details
Technology Report	20-40	18-24	✓	Print and electronic versions	Full rigorous HTA
Technology Overview	10-20	1-2 months after Technology Report	✓	Print and electronic versions	Summaries of Technology Reports
Issues In Emerging Technology	4-6	3-6	✓	Print and electronic versions	Bulletins highlighting technologies that are advanced in development but not in widespread use in Canada
Emerging Drug List	1-4	1-2	×	Electronic version	Series of early assessments (typically pre-NOC) based on CCOHTA's horizon scanning activities
Emerging Technology List	2-4	1-2	×	Electronic version	Series of early assessments based on CCOHTA's horizon scanning activities
Pre-assessments	5-8	3-4	×	Electronic version	A quick guide to current assessment information on a topic

Technology Reports

- **Assessment of videoconferencing in telehealth in Canada.** May 2001. no. 14. *Noorani HZ, Picot J.*

  The use of telehealth in Canada continues to increase, in response to the need to deliver specialty services to rural and remote communities in Canada. Using the results of evaluations from several Canadian telehealth videoconferencing programs, this report identifies the barriers that inhibit the widespread implementation of telehealth, and examines its clinical and economic benefits. The report also offers suggestions and direction for the future of telehealth in Canada.

- **A population-based cohort study of surveillance mammography after treatment of primary breast cancer.** July 2001. no. 15. *Paszat L, Grunfeld E, van Walraven C, Coyle D, Sawka C, Yun J, et al.*

  Surveillance mammography is a recommended routine annual procedure for breast cancer survivors. This study found that during the five years following treatment of primary breast cancer, two-thirds of subsequent breast surgery occurred more than four months after surveillance mammography. This observation suggests several hypotheses: (1) compliance with surveillance mammography may be lower among those at highest risk for ipsilaterial breast cancer recurrence or contralateral primary breast cancer; and (2) the effectiveness of surveillance mammography may be decreased among those at highest risk for ipsilateral breast cancer recurrence or matachronous primary contralateral breast cancer.

- **Novel antipsychotics for patients with bipolar disorder: a systematic review.** July 2001. no. 16. *Shukla VK, McAuley L.*

  A systematic review of clinical trails that compared novel antipsychotic drugs to conventional antipsychotic drugs or placebo did not identify enough information to draw meaningful conclusions about the use of novel antipsychotics in the treatment of patients with bipolar disorders. Given the high cost of these agents and the lack of conclusive evidence concerning their benefit over traditional therapies, a cautious approach is warranted when considering their use.

- **Novel antipsychotics for patients with attention-deficit hyperactivity disorder: a systematic review.** *July 2001. no. 17. Einarson TR, Iskedjian M.*

  ADHD is responsible for up to 50% of all referrals to mental health services for children and adolescents. Increasingly, novel antipsychotics are being prescribed to treat ADHD, but there is little quality evidence concerning the efficacy of novel antipsychotics for this purpose. This report provides a systematic review of randomized controlled trials and comparative trials. However, a formal meta-analysis could not be performed due to the lack of data.

HTA Publications - Completed in 2001-2002

Technology Reports

- **Behavioural interventions for pre-school children with autism.** August 2001. no. 18. *McGahan L.*

  Increasingly, Canadian families are looking for help in obtaining therapies for children with autism. Various behavioural interventions are currently available, but there are few published controlled primary studies regarding the efficacy of these interventions. This report provides a systematic review of the literature and summarizes reviews and expert opinions regarding behavioural therapy in treating autism. It also contains a summary of Canadian legal cases to date.

- **The challenges of early assessment: leukotriene receptor antagonists.** October 2001. no. 19. *Schachter HM, Kovesi T, Ducharme F, Langford S, Clifford T, Moher D.*

  Leukotriene receptor antagonists, or LTRAs, may be considered as an alternative to increased doses of inhaled corticosteroids (ICs) in treating mild-to-moderate asthma. As this is an emerging technology, there is little comparative information concerning the use of LTRAs in relation to ICs. This report reviews the efficacy and safety of the two main LTRAs currently marketed in Canada, montelukast and zafirlukast, as compared to ICs.

- **New fluoroquinolones in community-acquired pneumonia: a clinical and economic evaluation.** November 2001. no. 20. *Metge CJ, Vercaigne L, Carrie A, Zhanel GG.*

  The report assesses the efficacy and cost-effectiveness of a new group of antibiotics - the "respiratory" or "new" fluorquinolones - compared with other antibiotics available for treating community-acquired pneumonia in Canada. While the new fluoroquinolones appear to be at least as effective as comparator antibiotics, analysis of the trials on an intention-to-treat basis (which prevents the introduction of bias) does not indicate a statistically significant clinical advantage. The new fluoroquinolones have a small cost advantage compared to some recommended alternative antibiotics, but not all. Given the neutral efficacy as compared to alternatives and relatively minor cost differences, treatment choices may involve other considerations, such as adverse drug reaction profile, patient convenience and concerns about potential cross-resistance among fluoroquinolones.

. . . rigorous standards to eliminate bias and provide a clear picture of the clinical effectiveness. . .

HTA Publications - Completed in 2001-2002

Technology Reports

- **Oseltamivir for the treatment of suspected influenza: a clinical and economic assessment.** November 2001. no. 21. *Husereau DR, Brady B, McGeer A.*

This report assesses the efficacy and effectiveness of using oseltamivir to treat patients suspected of having influenza, based on a systematic review of clinical studies. An economic review and analysis was also conducted. The report concludes that there is insufficient evidence that oseltamivir reduces complications, hospitalizations and/or death, or that it is cost effective.

- **The efficacy of proton pump inhibitors (PPIs) in adults with functional dyspepsia.** January 2002. no. 22. *Shiau JY, Shukla VK, Dubé C.*

  Functional dyspepsia (discomfort centred in the upper abdomen) accounts for 7% of the average primary care physician's clinical practice in Canada. CCOHTA's report examines the use of PPIs in Canada and compares them to placebo, prokinetic agents and H2 antagonists. While PPIs are effective in reducing functional dyspepsia as compared with placebo, the lack of direct comparison trials between the three agents means there is no conclusive evidence that any one agent is the best.

- **The cost-effectiveness of celecoxib and rofecoxib in patients with osteoarthritis or rheumatoid arthritis.** February 2002. no. 23. *Maetzel A, Krahn M, Naglie G.*

  Nonsteroidal anti-inflammatory drugs (NSAIDs) are widely prescribed to treat pain and inflammation in patients with osteoarthritis (OA) and rheumatoid arthritis (RA). Long-term use of these agents increases the risk of serious upper gastrointestinal (UGI) events, such as stomach and duodenal ulcers. A new generation of NSAIDs that more selectively inhibit cyclo-oxygenase type-2, called COX2 NSAIDs, have been promoted as having a superior safety profile in terms of fewer gastrointestinal events. CCOHTA's report identifies concern about an increase in cardiovascular events from celecoxib and rofecoxib versus comparator NSAIDs and concluded that COX2 NSAIDS are cost effective in patients who have a prior history of UGI events, or when patients without additional risk factors reach certain age thresholds.

HTA Publications - Completed in 2001-2002

Technology Reports

- **Infliximab for the treatment of Crohn's disease: a systematic review and cost-utility analysis.** March 2002. *no. 24. Marshall JK, Blackhouse G, Goeree R, Brazier N, Irvine EJ, Faulkner L, et al.*

  Infliximab, a monoclonal antibody used to treat Crohn's disease (CD), appears to be clinically effective for the treatment of fistulizing CD and active CD resistant to conventional therapy. The findings also suggest that infliximab for CD is currently outside the range of what is normally considered cost effective. The economic impact of infliximab may continue to evolve with changes in drug delivery, dose and cost. Decision makers should recognize that infliximab offers a potential treatment to selected patients with refractory CD for whom few, if any other, alternatives are available.

- **Radiofrequency catheter ablation (RFA) for cardiac arrhythmias: a clinical and economic review.** March 2002. no. 25. *Noorani HZ, Yee R, Marshall D, Connolly S, Nichol G, O'Brien B.*

  Tachycardia, a heart rhythm disturbance, can be treated with antiarrhythmic drugs, but drug therapy may be ineffective or cause intolerable side effects. Catheter ablation delivered by radiofrequency energy is currently the predominant procedure used to treat tachycardias. This report evaluates the clinical evidence and cost-effectiveness of RFA and reports on future implications/ technological advances of the procedure.

Technology Overviews

- **Drug treatments for Alzheimer's disease: efficacy, outcome measurements and cost-effectiveness.** July 2001. no. 4. *Husereau D, Wolfson C, Shukla VK.*

- **The new fluoroquinolones in community-acquired pneumonia: clinical and economic perspectives.** November 2001. no. 5. *Metge CJ, Vercaigne LM, Carrie A, Sarveiya V, Zhanel GG.*

- **Economic assessment: celecoxib and rofecoxib for patients with osteoarthritis or rheumatoid arthritis.** February 2002. no. 6. *Maetzel A, Krahn M, Naglie G.*

- **An assessment of oseltamivir for the treatment of suspected influenza.** March 2002. no. 7. *Husereau DR, Brady B, McGeer A.*

- **Clinical and economic assessment: infliximab for the treatment of Crohn's disease.** March 2002. no. 8. *Marshall JK, Blackhouse G, Goeree R, Brazier N, Irvine EJ, O'Brien BJ.*

Issues in Emerging Health Technologies

- **Anakinra: interleukin-1 receptor antagonist therapy for rheumatoid arthritis.** May 2001. no. 16. *Garces K.*

Significant improvement was demonstrated in several clinical measures in patients treated with anakinra

Anakinra is an interleukin-1 receptor antagonist (IL-1ra), which blocks interleukin-1 (IL-1), a protein involved in the inflammation and the joint destruction associated with rheumatoid arthritis (RA). In randomized controlled trials, patients with severe RA were treated with anakinra. Significant improvement was demonstrated in several clinical, radiologic and health-related quality of life measures in patients treated with anakinra versus placebo. Minimal adverse effects, mainly injection site reactions, were reported.

- **Omapatrilat for the management of heart failure and hypertension.** June 2001. no. 17. *Husereau DR.*

Omapatrilat, first in a new class of cardiovascular drugs called vasopeptidase inhibitors, is under evaluation for the management of hypertension and heart failure. Several small trials have demonstrated the efficacy and tolerability of once-daily omapatrilat in the treatment of mild to moderate hypertension. Efficacy data from one medium-sized trail have demonstrated a benefit comparable to lisinopril in the treatment of systolic heart failure.

- **Inhaled insulin for the treatment of diabetes mellitus.** June 2001. no. 18. *McAuley L.*

Insulin delivery via inhalation as an alternative to administration by injection is under development. The available evidence comparing subcutaneous insulin for persons with type 1 and 2 diabetes shows similar glycosylated hemoglobin levels after three months of treatment. Clinical trials suggest that insulin delivered by inhalation has a quicker onset of action relative to regular insulin. No changes in pulmonary function were noted in the studies. All studies were of three-month duration.

- **Tacrolimus ointment for the treatment of atopic dermatitis.** July 2001. no. 19. *Boucher M.*

Atopic dermatitis (AD) is a chronic dermatological condition characterized by itchiness and rash. Topical corticosteroids are the mainstay of pharmacotherapy. Tacrolimus ointment is a new topical anti-inflammatory agent available in Canada through the Special Access Program. It is approved as a second line agent for short or long term intermittent treatment of moderate to severe AD. Clinical trials suggest it is both effective and safe, but comparative studies with corticosteroids and long-term information are limited.

Issues in Emerging Health Technologies

- **Rosuvastatin: Do we need another statin?** July 2001. no. 20. *Ho C.*

  Rosuvastatin (Crestor™) is a new synthetic agent for the treatment and prevention of lipid disorders, a risk factor for coronary heart disease. Limited evidence from small clinical trials suggests that rosuvastatin may produce larger dose-dependent decreases in total cholesterol levels and low density lipoprotein-cholesterol levels in hypercholesterolemic patients compared to other statins. There is insufficient evidence to draw conclusions about the safety of rosuvastatin. The impact of rosuvastatin therapy on cardiac morbidity and mortality is not known. More experience is required to determine the effectiveness and relative benefits of this new drug.

- **Oxygen carriers ("blood substitutes").** July 2001. no. 21. *Topfer L, Hailey D.*

  A number of oxygen carriers or "blood substitutes" are undergoing clinical trials. One product (Hemopure®) was recently licensed for use in South Africa. Another (Hemolink™) may soon be approved for marketing in Canada. Most trials of oxygen carriers have focused on their use in surgery, primarily as a way to minimize the need for allogeneic blood transfusion. The benefits of these products in comparision to other blood conservation technologies and with allogeneic blood transfusion must be determined. The safety and cost-effectiveness of these products, and the patient populations that would benefit most from their use, require further study.

National Inventory of Selected High Tech Equipment

In October 2001, CCOHTA released the first comprehensive inventory of selected high-tech medical technologies in publicly funded sites across Canada.

The inventory is intended as a planning tool for health care planners. High tech diagnostic equipment, such as positron emission tomography (PET) scanners and computer tomography (CT) scanners, can have a significant impact on health care budgets.

CCOHTA collaborated with medical imaging consultants at ProMed Associates Ltd. to develop a national database that describes the status and diffusion of medical technologies in Canada as at June 2001.

Provincial and territorial ministries of health, regional health authorities, hospitals and industry were contacted to determine which public facilities were operating magnetic resonance imaging (MRI scanners), computed tomography (CT scanners), positron emission tomography (PET scanners), and angiography suites, catheterization laboratories, nuclear medicine (NM cameras) and lithotripsy equipment.

The results of this inventory provide a detailed picture of the distribution of publicly funded types of equipment available in each province, identified with facilities. The dates of installation and upgrades are also included to enable determination of the age of the equipment and when it was replaced.

Full details are provided in spreadsheets on the CCOHTA web site: www.ccohta.ca.

Issues in Emerging Health Technologies

- **Non-penetrating glaucoma surgery using AquaFlow™ collagen implants.**
  August 2001. no. 22. *Demeter S, Hailey D.*

AquaFlow™ is an absorbable collagen implant for use in non-penetrating surgery for primary open angle glaucoma. Its purpose is to facilitate drainage of fluid from the eye, thereby reducing intraocular pressure. AquaFlow™ is approved for use in Canada in medically refractory cases of primary open angle glaucoma. Non-penetrating glaucoma surgery with the AquaFlow™ implant appears to be a relatively safe procedure. However, there is a steep learning curve for the surgeon and it is initially associated with a high rate of conversion to conventional surgery during the operation. Limited evidence from small non-randomized trials suggests that the AquaFlow™ implant may offer benefits over conventional surgical approaches in terms of reduced complication rates, reduced medication use, an earlier return of improved vision and sustained control of intraocular pressure. However, the efficacy and cost-effectiveness of this approach have not been established.

- **The Oxford unicompartmental knee replacement for osteoarthritis.**
  September 2001. no. 23. *Brown A.*

The Oxford unicompartmental knee replacement is a reliable treatment for medial knee compartment osteoarthritis, provided patients with the correct indications are chosen and the appropriate surgical expertise is available. The Oxford knee has been available since fall 2000 in Canada and since the early 1980s in Europe. The latest version, Phase III, has generated interest since it uses both a minimally invasive surgical technique, as well as a free-floating, fully congruent meniscal bearing. This has the potential for faster recovery of the patient, as well as improved wear characteristics.

- **Transdermally-delivered oxybutynin (Oxytrol®) for overactive bladder.**
  October 2001. no. 24. *Ho C.*

The oxybutynin patch is a transdermal delivery system that releases the drug oxybutynin through the skin for the management of overactive bladder. Limited evidence suggests that transdermal delivery of oxybutynin over a short period may have efficacy comparable to oral oxybutynin. Recent Phase II and III clinical trials supported by the manufacturer suggest a potentially reduced incidence of dry mouth compared to oral oxybutynin. Itching, however, is present in 18% of patients, and the patients' withdrawal rate due to adverse effects after 12 weeks is significant. More studies are required to determine the long-term efficacy and safety of the oxybutynin patch for overactive bladder.

Issues in Emerging Health Technologies

- **Vagus nerve stimulation (VNS) for treatment-resistant depression.** October 2001. no. 25. *Topfer L, Hailey D.*

  Vagus nerve stimulation, originally used to reduce seizures in epilepsy patients, is now under investigation for treatment-resistant depression. A device used for vagus nerve stimulation, the NeuroCybernetic Prosthesis (NCP®) System recently received Health Canada approval for use in treatment-resistant depression. It is still considered to be an ''investigational'' device for this purpose by the US Food and Drug Administration. It is not yet clear which patients with major depression will respond to vagus nerve stimulation therapy and whether those who do so will sustain their response.

- **Transdermal contraceptive patch - a new birth control option.** November 2001. no. 26. *Banerjee S.*

  A new once-weekly contraceptive patch (Ortho Evra™) that delivers transdermally norelgestromin and ethinyl estradiol was approved by the US Food and Drug Administration in November 2001. A randomized controlled trial (RCT) demonstrated better adherence to the treatment regimen with the patch when compared to an oral contraceptive (OC). However, withdrawals due to adverse events and participant choice were higher in patch users than in OC users. An RCT covering 6 or 13 menstrual cycles indicated that the short-term efficacy of the patch was similar to that of the OC, but the risk of pregnancy in the long term is not known.

- **Do neuraminidase inhibitors prevent influenza?** November 2001. no. 27. *Husereau DR.*

  Two neuraminidase inhibitors, zanamivir (Relenza™) and oseltamivir (Tamiflu™), are well-tolerated and reduce the likelihood of contracting influenza in both healthy individuals and those who are at risk for developing complications. There is insufficient evidence to conclude that neuraminidase inhibitors reduce complications, hospitalization and death from laboratory-confirmed illness. Differences between amantadine, zanamivir and oseltamivir exist but the relative contributions of these differences to their overall effectiveness are difficult to assess due to a lack of comparative trials.

It is not yet clear which patients with major depression will respond to Vagus Nerve stimultaion therapy

Issues in Emerging Health Technologies

- **Extracorporeal immunoadsorption treatment for rheumatoid arthritis.** January 2002. no 28. *Hailey D, Topher L.*

  Immunoadsorption treatment is a non-drug therapy for rheumatoid arthritis. The treatment is based on filtering the patient's plasma through a column containing staphylococcal protein A. The treatment is effective in alleviating the symptoms of severe rheumatoid arthritis in some patients, but the data on long-term outcomes are not available. The cost per 12-week course of treatment is likely to be more than $20,000 (Cdn). The cost-effectiveness of the technology is not yet established.

Close attention must be paid to proper patient selection as some individuals could be harmed by therapy

- **Computer-enhanced surgical systems ("robotic surgery").** February 2002. no. 29. *Heffner T, Hailey D.*

  Computer-linked surgical systems allow surgeons to perform procedures without coming into contact with the patient. Indications for these robotic surgery systems are expanding. This technology offers potential advantages through enabling more precise surgery, which may lead to shorter patient recovery times, fewer complications and improved patient outcomes. Limited studies indicate the promise of these systems, which appear to be safe, but their efficacy is not fully established. In some procedures, the advantages they offer may also be achieved by newer non-computer assisted techniques. Capital costs are high and cost-effectiveness has not been demonstrated.

- **Activated protein C for severe sepsis.** March 2002. no. 30. *Garces K.*

  Severe sepsis is a systemic inflammatory response to infection involving organ dysfunction and is associated with a 20% to 56% mortality rate. Drotrecogin alpha (activated) is a recombinant human activated protein C (rhAPC) approved in the US for the reduction of mortality in adult patients with severe sepsis who have a high risk of death. Drotrecogin alpha (activated) when administered to adult patients with clinically-defined severe sepsis demonstrated a 6.1% absolute reduction (p=0.005) in 28-day all-cause mortality in one published randomized double-blind study of 1,690 patients (PROWESS). Drotrecogin alpha (activated) is used as an adjunct to standard therapy and is therefore an "add on" cost. Close attention must be paid to proper patient selection as some individuals, particularly those at a greater risk of bleeding, could be harmed by therapy.

HTA Publications - Completed in 2001-2002

Emerging Drug Lists

- **Amlexanox.** April 2001. no. 1.

  Indication: For the treatment of aphthous ulcers (canker sores).

- **Levonorgestrel-releasing intrauterine system (Mirena®).** April 2001. no. 2.

  Indication: For contraception.

- **Sibutramine.** April 2001. no. 3.

  Indication: For the management of obesity, including weight loss and maintenance of weight loss, in conjunction with a reduced-calorie diet.

- **Tegaserod.** April 2001. no. 4.

  Indication: For the treatment of constipation-predominant irritable bowel syndrome.

- **Topical Diclofenac Sodium.** April 2001. no. 5.

  Indication: For the topical treatment of pain associated with osteoarthritis.

- **Nateglinide (Starlix®).** April 2001. no. 6.

  Indication: For controlling blood glucose (as monotherapy, or in combination with metformin) in patients with type 2 diabetes whose blood glucose is not controlled by diet and exercise alone.

- **Tacrolimus.** April 2001. no. 7.

  Updated in Issues in Emerging Health Technologies no. 19, July 2001
  Indication: For the treatment of the signs and symptoms of moderate to severe eczema.

- **Insulin Glargine.** May 2001. no. 8.

  Indication: For the treatment of both adults and children (six years of age and older) with type 1 diabetes mellitus or adults with type 2 diabetes mellitus that require hyperglycemia control with a long-acting insulin.

- **Rosuvastatin.** May 2001. no. 9.

  Updated in Issues in Emerging Health Technologies no. 20, July 2001
  Indication: For the reduction of elevated lipid parameters [e.g. total cholesterol, triglycerides, low density lipoprotein-cholesterol (LDL-C)] in patients with hyperlipidemia/dyslipidemia, not responsive to appropriate dietary intervention.

- **Parecoxib Sodium.** May 2001. no. 10.

  Indication: For peri-operative pain relief.

- **Galantamine.** July 2001. no. 11.

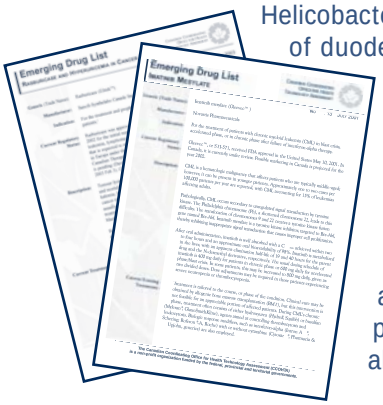
  Indication: For the symptomatic treatment of mild to moderate dementia of the Alzheimer's type.

HTA Publications - Completed in 2001-2002

Emerging Drug Lists

- **Esomeprazole Magnesium.** July 2001. no. 12.

  Indication: For acute and maintenance treatment of gastroesophageal reflux disease (GERD); for maintenance treatment of erosive esophagitis; and in combination with amoxicillin and clarithromycin, for eradication of Helicobacter (H.) pylori in the treatment of duodenal ulcer.



- **Imatinib Mesylate (Gleevec™).** July 2001. no. 13.

  Indication: For the treatment of patients with chronic myeloid leukemia (CML) in blast crisis, accelerated phase, or in chronic phase after failure of interferon-alpha therapy.

- **Telithromycin (Ketek®).** July 2001. no. 14.

  Indication: For the treatment of community acquired pneumonia, acute bacterial exacerbations of chronic bronchitis, and acute bacterial sinusitis.

- **Pleconaril.** September 2001. no. 15.

  Indication: For the treatment of viral respiratory infections (common cold) in adults.

- **Alemtuzumab.** September 2001. no. 16.

  Indication: For the treatment of B-cell chronic lymphocytic leukemia (B-CLL) patients who have been treated with alkylating agents and who have failed fludarabine therapy.

- **Caspofungin Acetate.** September 2001. no. 17.

  Indication: For the treatment of invasive aspergillosis in patients who fail to respond to, or are unable to tolerate, other antifungal drugs, including amphotericin B and itraconazole.

- **Fondaparin (Fondaparinux) Sodium.** September 2001. no. 18.

  Indication: For the prevention of venous thromboembolic events following orthopedic surgery.

- **Agalsidase Alpha and Agalsidase Beta.** February 2002. no. 19.

  Indication: For the long term enzyme replacement therapy of patients with Fabry Disease (alpha-galactosidase A deficiency).

- **Insulin Aspart.** February 2002. no. 20.

  Indication: For the control of hyperglycemia, in the treatment of adult patients with diabetes mellitus.

- **Bosentan.** February 2002. no. 21.

  Indication: For the treatment of pulmonary arterial hypertension.

- **Levetiracetam (Keppra®).** February 2002. no. 22.

  Indication: As adjunctive treatment of partial-onset seizures in adults with epilepsy.

HTA Publications - Completed in 2001-2002

Emerging Technology Lists

- **Etonogestrel/Ethinyl Estradiol.** February 2002. no. 23.

  Indication: For contraception.

- **Tiotropium Bromide:** February 2002. No. 24

  Indication: For the maintenance treatment of patients with chronic obstructive pulmonary disease.

- **Ertapenem.** March 2002. no. 25.

  Indication: Treatment of complicated intra-abdominal infections, complicated skin and skin structure infections, community acquired pneumonia, complicated urinary tract infections and acute pelvic infections including septic abortion, post-surgical gynecologic infections and postpartum endomyometritis.

- **Etoricoxib.** March 2002. no. 26.

  Indication: For the treatment of osteoarthritis, rheumatoid arthritis, acute and chronic pain and dysmenorrhea.

- **Ezetimibe.** March 2002. no. 27.

  Indication: As monotherapy or in combination with statins for the reduction of elevated cholesterol levels (hypercholesterolemia).

- **Aripiprazole.** March 2002. no. 28.

  Indication: For the treatment of schizophrenia.

- **Darbepoetin Alpha.** March 2002. no. 29.

  Indication: For the treatment of anemia associated with chronic renal failure, including patients on dialysis and in patients not on dialysis.

- **GlucoWatch® Biographer.** June 2001. no. 1.

  Purpose: Non-invasive glucose monitoring for adult diabetics.

- **Antimicrobial Bandages.** June 2001. no. 2.

  Purpose: An antimicrobial (antibacterial & antifungal) bandage for home use.

- **Point-Of-Care Ultrasound Units.** May 2001. no. 3.

  Updated in Issues in Emerging Health Technologies no. 41, October 2002
  Purpose: For routine cardiac assessment at the bedside or in the clinic.

- **Computed Tomography Laser Mammography.** June 2001. no. 4.

  Purpose: An adjunctive technology for further diagnostic information following a mammogram.

- **Selective Tubal Occlusion Procedure.** June 2001. no. 5.

  Purpose: Permanent contraception.

All publications are available on-line at no cost (www.ccohta.ca)

HTA Publications - Completed in 2001-2002

- **Vagus Nerve Stimulator (VNS).** June 2001. no. 6.

  Updated in Issues in Emerging Health Technologies no. 25, October 2001
  Purpose: Treatment of recurrent or treatment-resistant depression.

- **TruScan™.** July 2001. no. 7.

  Purpose: Detection of cervical cancer.

- **Warm-Up® Therapy.** July 2001. no. 8.

  Purpose: Wound care (pressure ulcers, chronic wounds, etc.)

- **Gliasite® Radiation Therapy.** August 2001. no. 9.

  Purpose: Treatment of brain cancer.

- **Given® Diagnostic Imaging System.** November 2001. no. 10.

  Purpose: Diagnostic imaging of the small intestine.

- **Endoscopic Suturing System.** January 2002. no. 11.

  Purpose: Treatment of gastroesophageal reflux disease (GERD).

- **Radio Frequency Energy (the Stretta System).** January 2002. no. 12.

  Purpose: Treatment of gastroesophageal reflux disease (GERD).

- **MammoSite™ Radiation Therapy System.** March 2002. no. 13.

  Purpose: Adjunctive treatment of early stage breast cancer.

Pre-assessments

- **Early newborn discharge.** February 2002. no. 1.
- **Relative benefits of various types of hip prostheses.** February 2002. no. 2.
- **Brachytherapy for prostate cancer.** February 2002. no. 3.
- **Sacral Nerve Stimulation Device for Urinary Incontinence.** February 2002. no. 4
- **Tension-free vaginal tape (TVT) for urinary incontinence.** February 2002. no. 5.

CCOHTA's Presence

Coordination Initiatives

CCOHTA continued its leadership role as a promoter and facilitator of coordinated health sector research in Canada and internationally, both in terms of HTA research and within the broader sphere of health services research.

National

Canadian Health Evaluation Forum (CHEF)

CHEF is a network of publicly funded health research organizations that provide evidence-based information on health technologies or other health care interventions for use in administrative or clinical decision making. The network was established in 1993 (under the name Canadian Health Technology Assessment Net or CHTANet). The committee was renamed CHEF in September 2001.

In addition to CCOHTA, members include:

- Alberta Heritage Foundation for Medical Research (AHFMR)
- British Columbia Office of Health Technology Assessment (BCOHTA)
- Agence d'Évaluation des Technologies et des Modes d'intervention en Santé (AETMIS)
- Health Services Utilization and Research Commission (HSURC)
- Institute for Clinical Evaluative Sciences (ICES)
- Manitoba Centre for Health Policy (MCHR)

Coordinating Committee For Health Services Research (CCHSR)

The Coordinating Committee for Health Services Research (CCHSR) was established by CCOHTA in September 2000 to increase coordination and cooperation among key national organizations interested in health services research.

The initial core member organizations were:

- Canadian Coordinating Office for Health Technology Assessment (CCOHTA)
- Canadian Health Services Research Foundation (CHSRF)
- Canadian Institute for Health Information (CIHI)
- Canadian Institutes of Health Research-Institute of Health Services and Policy Research (CIHR)
- Health Canada

CCOHTA's Presence

The Advisory Committee on Health Services (ACHS) of the Conference of F/P/T Deputy Ministers of Health joined CCHSR in 2001. Other organizations, such as the Social Sciences and Humanities Research Council (SSHRC), Canadian Policy Research Networks (CPRN) and Canadian Health Economics Research Association (CHERA), have been invited to CCHSR meetings as observers.

CCHSR has two main purposes - to identify opportunities for collaboration and to reduce duplication of activities.

In early 2001, the CCHSR conducted a national joint priority consultation process which resulted in the Listening for Direction report. The Canadian Health Services Research Foundation was the lead agency. The report identifies the critical research themes for future applied health services and policy research. Much of the committee's agenda in 2001-02 was dominated by follow-up activities arising from Listening for Direction.

In February 2002, CCHSR met to discuss options for developing a common database of health service researchers. CIHR undertook to prepare a Request for Proposal for a data source analysis for researchers and decision makers.

National Health Organization CEOs

CCOHTA belongs to an informal group comprising the chief executive officers of national health organizations. Following a period of inactivity, CCOHTA President Dr. Jill M. Sanders proposed revitalizing the group in November 2001. As a result, the group now holds bi-monthly networking luncheons. The current members of the group are the CEOs of the following organizations:

The CCHSR conducted a national priority consultation process

- Canada's Research-Based Pharmaceutical Companies (Rx&D)
- Canadian Association for Community Care
- Canadian Blood Services
- Canadian College of Health Service Executives
- Canadian Coordinating Office for Health Technology Assessment
- Canadian Council on Health Services Accreditation
- Canadian Dental Association
- Canadian Health Services Research Foundation
- Canadian Healthcare Association
- Canadian Heart and Stroke Foundation
- Canadian Homecare Association
- Canadian Institute for Health Information

CCOHTA's Presence

- Canadian Institutes of Health Research
- Canadian Institute of Child Health
- Canadian Lung Association
- Canadian Medical Association
- Canadian Nurses Association
- Canadian Pharmacists Association
- Canadian Psychological Association
- Canadian Public Health Association
- Canadian Red Cross Society
- Canadian Register of Health Service Providers in Psychology
- Canadian Society for International Health
- Catholic Health Association of Canada
- Children's Hospital of Eastern Ontario
- College of Family Physicians of Canada
- Royal College of Physicians & Surgeons of Canada
- Social Sciences and Humanities Research Council of Canada
- Victorian Order of Nurses Canada

CCOHTA's Presence

Other Organizations

In the course of its project work and outreach activities, CCOHTA develops relationships with many major professional organizations and other key bodies. This creates the foundation for coordinated activities and a better mutual understanding of the activities of the various organizations and the needs of health care decision makers.

In 2001-02, CCOHTA developed or enhanced relationships with:

- Canadian Association of Cardiac Rehabilitation
- Canadian Cardiovascular Society
- Canadian Cochrane Centre
- Canadian Medical Association
- Canadian Society of Telehealth
- Institute for Clinical Evaluative Sciences
- National Advisory Committee on Immunization
- McMaster University
- Medical Devices Canada (MEDEC)
- Memorial University of Newfoundland, Faculty of Medicine
- Memorial University of Newfoundland, School of Pharmacy
- Newfoundland Medical Association
- Newfoundland Pharmaceutical Association
- Newfoundland and Labrador Health Boards Association
- PEI Pharmacy Board
- PEI Health Research Institute
- PEI Institute of Human Health Research
- Society for Neuroscience
- Sunnybrook Hospital, Toronto, Ontario

CCOHTA's Presence

International

International Society of Technology Assessment in Health Care (ISTAHC)

CCOHTA belongs to ISTAHC, an international forum for researchers and clinicians working in HTA. CCOHTA plays an active role in the ISTAHC annual conference and regularly submits articles to International Journal of Technology Assessment in Health Care.

International Network of Agencies for Health Technology Assessment (INAHTA)

CCOHTA belongs to INAHTA, an international network of health technology assessment agencies. All members are non-profit organizations that assess health technologies, have a relationship to a regional or national government and receive at least 50% of their funding from public sources. INAHTA was established to provide a forum for the identification and pursuit of interests common to HTA agencies. INAHTA maintains a database of current projects and publications of all INAHTA members.

European Information Network on New and Changing Health Technologies (EuroScan)

CCOHTA is a member of EuroScan, an information network of European health technology assessment agencies involved in horizon scanning. This non-profit group collaborates on the early identification of important emerging new drugs, devices, procedures, processes and settings in health care. EuroScan members evaluate information on new and changing technologies and share information through a confidential common database.

CCOHTA's Presence

Dissemination

Directed distribution of print copies of CCOHTA's reports to a core mailing list remains the primary method of distribution for full assessments. This accounts for an average mailing of 1,000 copies for each full assessment and about 1,900 copies for each Technology Overview.

In 2001-02, CCOHTA introduced three new web-based publication series.

In addition to print and on-line distribution, CCOHTA promotes awareness of its findings through its e-mail notification service (with approximately 1,000 subscribers), its quarterly newsletter ***Connection*** (3,800 subscribers), coverage in journals and popular media, and presentations at scientific, clinical and health policy conferences.

Through its outreach workshops and conference participation, CCOHTA increased its presence across the country.

Outreach Workshops

CCOHTA's outreach program was successfully launched in May 2001 with outreach workshops in St. John's, Newfoundland and Labrador and Charlottetown, PEI.

The St. John's workshop attracted 75 participants, including provincial health ministry staff, pharmacists and physicians. In addition to CCOHTA staff, presenters included Dr. Patrick S. Parfrey from the Patient Research Centre at Memorial University of Newfoundland, Don Juzwishin, Director of the Health Technology Assessment Unit at the Alberta Heritage Foundation for Medical Research and John Downton, Director of the Pharmaceutical Services Division at the Newfoundland and Labrador Department of Health and Community Services.

The Charlottetown workshop included 32 participants, many from the Ministry of Health and regional government. In addition to CCOHTA staff, presenters included PEI Health Minister Hon. Jamie Ballem, Deputy Health Minister Rory Francis, Mary Hughes Power, chair of the PEI Health Technology Assessment Committee, and Don Juzwishin, Director of the Health Technology Assessment Unit at the Alberta Heritage Foundation for Medical Research.

Both workshops were well-received due to the exceptional commitment and support from the host province's Health Ministries and health care professionals.

Presentations

Conference presentations and targeted presentations to other national health organizations and selected stakeholder and consumer groups are an effective way of increasing awareness of CCOHTA and its HTA findings. In 2001-02, CCOHTA staff participated in events in various provinces and travelled as far afield as England, Australia and Brazil.

Oral Presentations

Date	Name	Conference/ Targeted Organization	Presentation Title	Location
May 2001	Becky Skidmore	**Canadian Health Libraries Association Annual Conference**	Not just a pretty face: Reference Manager does more than manage your bibliographies	Quebec, QC
May 2001	Hussein Noorani	**F/P/T Telehealth Working Group**	Assessment of videoconferencing in telehealth in Canada	Toronto, ON
May 2001	Bruce Brady	**Canadian Health Economics Research Association**	Economic evaluation of zanamivir for treatment of influenza	Toronto, ON
June 2001	Bruce Brady	**International Society for Technology Assessment in Health Care Annual Conference**	Globalize the evidence, localize the decisions: how worldwide evidence in technology assessment can be used to inform national policy decisions	Philadelphia, PA, US
June 2001	Lynda McGahan	**International Society for Technology Assessment in Health Care Annual Conference**	Early assessment of alosetron for irritable bowel syndrome	Philadelphia, PA, US
July 2001	Bruce Brady	**International Health Economics Association**	Economic evaluation of zanamivir for treatment of influenza in Canada	York, UK
Sept 2001	Lynda McGahan	**International Conference on the Basis of Health Services Research**	Behavioural interventions for preschool children	Sydney, Australia
Sept 2001	Andrea Fisher	**Royal College of Physicians and Surgeons of Canada Roundtable on patient safety and error in medicine**	Health technologies used to address medical errors in hospitals	Ottawa, ON
Oct 2001	Allan Brown Hussein Noorani	**Canadian Association of Cardiac Rehabilitation**	Rehabilitation for people with coronary heart disease: impact on Canadian health care	Halifax, NS
Oct 2001	Dave Clements	**National Advisory Committee on Immunization**	HTA in Canada	Ottawa, ON
Oct 2001	Hussein Noorani	**5th Annual Conference on the Medical Aspects of Telemedicine**	Health technology assessment on videoconferencing in telehealth	Montreal, QC
Oct 2001	Dave Clements	**Alberta Heritage Foundation for Medical Research – Health Research Advisory Committee**	"Listening for Direction" – national consultation	Edmonton, AB
Oct 2001	Laura McAuley	**Canadian Society for Vascular Surgery, 23rd Annual Meeting**	Endovascular repair of abdominal aortic aneurysm: a snapshot of Canada	Ottawa, ON

Oral Presentations

Date	Name	Conference/ Targeted Organization	Presentation Title	Location
Nov 2001	Bruce Brady on behalf of Dr. Jill M. Sanders	**2nd International Symposium on Health Economics**	Challenges, choices and Canada	Sao Paulo, Brazil
Nov 2001	Dr. Vicki Foerster Michel Boucher Diane Benner	**Canadian Blood Services**	An introduction to CCOHTA and HTA	Ottawa, ON
Nov 2001	Dr. Jill M. Sanders	**National Blood Services Meeting**	The Canadian model for national HTA	Winnipeg, MB
Nov 2001	Vijay Shukla	**Canadian Cochrane Symposium 2001**	Proton pump inhibitors in non-ulcer dyspepsia: a meta-analysis of the published studies	Edmonton, AB
Dec 2001	Dr. Vicki Foerster Laura McAuley Don Husereau	**Field Epidemiology Rounds at Health Canada**	An introduction to CCOHTA	Ottawa, ON
Dec 2001	Dr. Vicki Foerster	**BC Ministry of Health Services**	An introduction to CCOHTA and HTA	Victoria, BC
Dec 2001	Dr. Jill M. Sanders	**MEDEC Board of Directors**	The Canadian model for national HTA	Toronto, ON
Feb 2002	Bruce Brady	**Institute for Health Economics** (Education Program for Clinicians)	CCOHTA guidelines for economic evaluations	Edmonton, AB
March 2002	Allan Brown	**Clinical Epidemiology Program Rounds, Ottawa Research Institute**	A systematic clinical and economic review of cardiac rehabilitation programs for coronary heart disease	Ottawa, ON

CCOHTA's Presence

Exhibition Participation

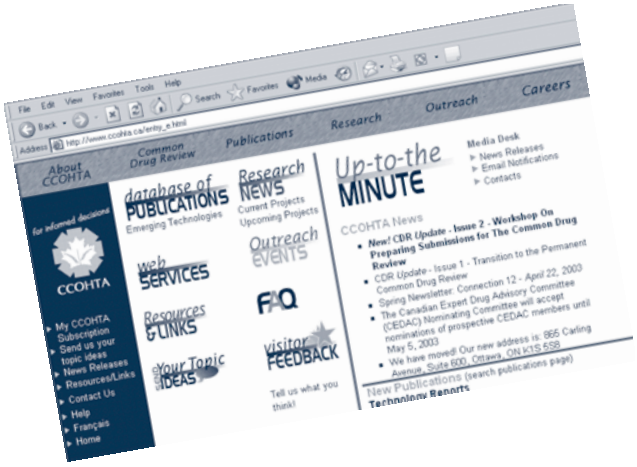
CCOHTA continues to exhibit at key international, national and provincial conferences. Exhibiting provides CCOHTA staff with important opportunities to meet our audiences in person and discuss CCOHTA's role and products.

- Saskatchewan Association of Health Organizations Conference, Saskatoon, Saskatchewan, March 2001
- International Society for Technology Assessment in Health Care Conference, Philadelphia, Pennsylvania, US, June 2001
- National Healthcare Leadership Conference, Winnipeg, Manitoba, June 2001
- Ontario Hospital Association Conference, Toronto, Ontario, November 2001
- Canadian Society of Hospital Pharmacists Professional Practice Conference, Toronto, Ontario, February 2002

Media

In 2001-02, the following media outlets took note of CCOHTA reports and activities:

- Canadian Medical Association Journal
- Canadian Pharmaceutical Journal
- Winnipeg Free Press
- CBC Television
- CBC Radio
- Medical Post
- Pharmacoeconomics and Outcomes News
- Web MD



CCOHTA's Web Site

The CCOHTA web site is regularly updated and features a searchable database that includes all of CCOHTA's completed HTAs, HTA methodology guidelines, annual reports and other publications. Once registered, users can download reports at no cost and subscribe to the e-mail notification service.

The web site also includes links to HTA resources and organizations. CCOHTA welcomes feedback on its web site from users.

The CCOHTA web site address is www.ccohta.ca

The Organization

CCOHTA

CCOHTA Board of Directors

The members of CCOHTA's Board of Directors are appointed by the Deputy Ministers of Health of the federal government, the ten provinces and the three territories. The Board provides governance of CCOHTA, sets policies and priorities and assigns responsibility for the handling of funds.

The Executive Committee is elected by the Board and consists of a Chair, Vice-Chair and a Member-at-Large. The Board member representing the federal government is invited to participate in all Executive Committee meetings.

In fiscal 2001-02, CCOHTA's Board of Directors met twice:

- St. John's, Newfoundland on July 10, 2001
- Ottawa, Ontario on October 30, 2001

The following is a list of the members of CCOHTA's Board of Directors, as at March 31, 2002.

Executive Committee

Eleanor Hubbard, Chair

Director of Pharmaceutical Services
Office of the Associate Deputy Minister
Department of Health
Government of Nova Scotia

Dr. Alan Thomson, Vice-Chair

Executive Director, Standards and Performance Development
Ministry of Health Services
Government of British Columbia

Elaine Stakiw, Member-at-large

Director, Health System Utilization Analysis
Alberta Health and Wellness Government of Alberta

Board of Directors

Members

Rachel Bard

Assistant Deputy Minister
Public Health & Medical Services
Department of Health & Wellness
Government of New Brunswick

Dr. André Corriveau

Assistant Deputy Minister
Population Health and Clinical Services
Health and Social Services
Government of the Northwest Territories

Lauren Donnelly

Director
Acute and Emergency Services Branch
Saskatchewan Health
Government of Saskatchewan

Joanne Fairlie

Director of Health Insurance Programs
Ministry of Health and Social Services
Government of the Yukon Territory

Pat Hosang

Director, Regional Support Services
Manitoba Health
Government of Manitoba

Dr. Ed Hunt

Medical Consultant
Department of Health
Government of Newfoundland and Labrador

Dr. Leslie Levin

Office of the Senior Medical Advisor
Ministry of Health and Long-Term Care
Government of Ontario

Ian Shugart

Assistant Deputy Minister
Policy and Consultation Branch
Health Canada
Government of Canada

Glenn Thompson

Executive Director, Baffin Region
Department of Health and Social Services
Government of Nunavut

Joyce Thompson

Hospital Services Manager
Acute and Continuing Care
Department of Health and Social Services
Government of Prince Edward Island

Scientific Advisory Panel

The Scientific Advisory Panel (SAP) is an advisory body appointed by CCOHTA's Board of Directors comprised of experts in fields relevant to HTA, such as clinical methodology, health economics, statistics, population health and pharmacoepidemiology.

In addition to providing independent, expert scientific advice to CCOHTA's Board of Directors, SAP members review all project proposals and help define their scope, and review CCOHTA's technology reports prior to publication.

In fiscal 2001-02, SAP met on October 15, 2001 in Ottawa, Ontario.

The following is a list of the members of SAP, as at March 31, 2002.

Dr. Ruth Collins-Nakai, Chair

Cardiologist
University of Alberta
Edmonton, Alberta

Dr. George Wells, Vice-chair

Department of Epidemiology
and Community Medicine
Faculty of Medicine
University of Ottawa
Ottawa, Ontario

Dr. Jeff Barkun

Royal Victoria Hospital
Department of Surgery
Montreal, Quebec

Dr. Gina Bravo

Associate Professor
Research Centre
Sherbrooke University Geriatric Institute
Sherbrooke, Quebec

Dr. Andre-Pierre Contandriopoulos

Chair, Department of Health Administration
University of Montreal
Montreal, Quebec

Dr. Robert Côté

McGill University, Division of Neurology
Montreal General Hospital
Montreal, Quebec

Doug Coyle

Principle Investigator
Clinical Epidemiology Unit
Loeb Research Institute
Ottawa Civic Hospital
Ottawa, Ontario

Dr. David Hailey

Professor
Department of Public Health Sciences
University of Alberta
Edmonton, Alberta

Dr. Andrew B. Hill

Division Head, Vascular Surgery
Ottawa Civic Hospital
Ottawa, Ontario

Scientific Advisory Panel

Dr. Phil Jacobs

Professor
Department of Public Health Sciences
University of Alberta
Edmonton, Alberta

Dr. Jeffrey Mahon

Associate Professor of Medicine
London HSC - University Campus Site
London, Ontario

Dr. Muhammad Mamdani

Scientist
Institute for Clinical Evaluative Sciences
Toronto, Ontario

Dr. Kenneth Marshall

Professor, Family Medicine (retired)
University of Western Ontario
London, Ontario

Dr. David Persaud

Assistant Professor
School of Health Services Administration
Dalhousie University
Halifax, Nova Scotia

Dr. Jeff Scott

Provincial Medical Officer
Halifax, Nova Scotia

Dr. Charles Wright

Director, Clinical Epidemiology
and Evaluation Centre
Vancouver Hospital and
Health Sciences Centre
Vancouver, British Columbia

Devices and Systems Advisory Committee

The Devices and Systems Advisory Committee (DSAC) provides advice regarding HTA issues related to medical devices and health systems/services to the CCOHTA board and to CCOHTA's research staff.

In fiscal 2001-2002, DSAC met on September 21, 2001 in Wakefield, Quebec.

The following is a list of the members of DSAC, as at March 31, 2002.

Dr. Henry Phillips, Chair

Medical Consultant
Provider Services Branch
Ministry of Health & Long Term Care
Government of Ontario

Scott Livingstone, Vice-chair

Director of Specialized Services
Acute and Emergency Services Branch
Saskatchewan Health
Government of Saskatchewan

Dr. Catherine Bradbury

Director of Medical Services
Medical Services Branch
Department of Health
Government of Newfoundland and Labrador

Paul Childs

Consultant
Health System Utilization Analysis
Alberta Health and Wellness
Government of Alberta

Dr. Neil Fatin

Medical Consultant
Ministry of Health Services
Government of British Columbia

Sandra Fedirchuk

Consultant, Regional Support Services
Manitoba Health
Government of Manitoba

Robert Jacob

Analyst
Direction systèmes de soins et services
Unité organisation des services
Institut national de santé publique du Quebec
Government of Quebec

Lynn St. Pierre Ellis

Senior Corporate Policy Advisor
Federal Provincial Relations
Department of Health and Wellness
Government of New Brunswick

Joyce Thompson

Hospital Services Manager
Acute and Continuing Care
Department of Health and Social Services
Government of Prince Edward Island

Pharmaceutical Advisory Committee

The Pharmaceutical Advisory Committee (PAC) provides advice regarding HTA issues related to pharmaceutical issues and pharmaceutical assessments to the CCOHTA board and to CCOHTA's research staff.

In fiscal 2001-02, PAC held one full-day meeting on October 19, 2001 in Ottawa, Ontario.

The following is a list of the members of the Pharmaceutical Advisory Committee, as at March 31, 2002.

Leanne Jardine, Chair

Pharmacy Consultant
Medicare/Prescription Drug Programs
Health and Community Services
Government of New Brunswick

Emily Somers, Vice-chair

Manager, Drug Programs
Insured Programs Branch
Department of Health
Government of Nova Scotia

Darlene Arenson

Pharmaceutical Consulting Group
Manitoba Health
Government of Manitoba

Margaret Baker

Acting Director, Pharmaceutical Services
Saskatchewan Health
Government of Saskatchewan

Patrick Crawford

Pharmacy Services Director
Department of Health and Social Services
Government of Prince Edward Island

John Downton

Director, Pharmaceutical Services
Department of Health and Social Services
Government of Newfoundland and Labrador

Scott Gavura

Manager, Drug Submissions
Drug Programs Branch
Ontario Ministry of Health and
Long Term Care
Government of Ontario

Brad Gregor

Regional Pharmacist
Hay River Community Health Board
Northwest Territories

Bob Nakagawa
(Hospital pharmacist representative)

Director of Pharmacy
Simon Fraser Health Region
British Columbia

Christine Perras

Pharmaceutical Policy & Programs
Population Health
Alberta Health and Wellness
Government of Alberta

Pharmaceutical Advisory Committee

Dr. Robert Peterson

Director General,
Therapeutic Products Directorate
Health Products and Food Branch
Health Canada

Lucie Robitaille

Conseillère pharmaceutique
Direction du médicament
Direction générale de la planification stratégique et de l'évaluation
Ministère de la Santé et des Services Sociaux du Québec
Government of Quebec

Suzanne Solven

Senior Pharmacist
B.C. Pharmacare Program
Ministry of Health Services
Government of British Columbia

Dorothea Talsma

Manager of Health Care Benefits
Health and Social Services
Yukon Government

The Organization

CCOHTA Staff

As at March 31, 2002

Executive

- **Jill M. Sanders**
  President
- **Vicki Foerster**
  Vice-President, Research
- **Cheryl Arratoon**
  Manager, Communications and Dissemination
- **Peter Chinneck**
  Manager, External Relations
- **Mary Gauthier**
  Manager, Administration and Finance

HTA Research

Srabani Banerjee, Research Officer, Devices and Systems

Diane Benner, Project Manager

Michel Boucher, Research Officer, Pharmaceuticals

Bruce Brady, Health Economist

Allan Brown, Health Economist

Andrea Fisher, Research Officer, Devices and Systems

Chuong Ho, Research Officer, Devices and Systems

Donald Husereau, Research Officer, Pharmaceuticals

Kirsten Garces, Research Officer, Pharmaceuticals

Lynda McGahan, Research Officer, Devices and Systems

Hussein Noorani, Research Officer, Devices and Systems

Vijay Shukla, Research Officer, Pharmaceuticals

Leigh-Ann Topfer, Research Officer, Devices and Systems

Library and Information Services

Janet Joyce, Manager

Jill Jensen, Library Technician

Karen Cimon, Library Technician

Shaila Mensinkai, Information Specialist

Becky Skidmore, Information Specialist

Communications

Françoise Jacob, Publications Assistant

Martha Johnston, Webmaster/Graphic Designer

Jondrea Liddie, Communications Officer

Administrative Support

Crystal Button, Reception

Roxanne Blow, Executive Assistant to the President

Liz Moreau, Financial and Administrative Assistant

Common Drug Review Secretariat

Elaine MacPhail, Coordinator

Financial Statements

Financial Statements

Auditors' Report

To the Members,

Canadian Coordinating Office for Health Technology Assessment.

We have audited the statement of financial position of Canadian Coordinating Office for Health Technology Assessment as at March 31, 2002 and the statements of revenue and expenditure, changes in net assets and cashflows for the year then ended. These financial statements are the responsibility of the organization's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the organization as at March 31, 2002 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles. As required by The Canada Corporations Act, we report that, in our opinion, these principles have been applied on a basis consistent with that of the preceding year.

McCay, Duff & Co. LLP

Chartered Accountants
Ottawa, Ontario,
June 19, 2002

McCAY, DUFF & COMPANY LLP
CHARTERED ACCOUNTANTS

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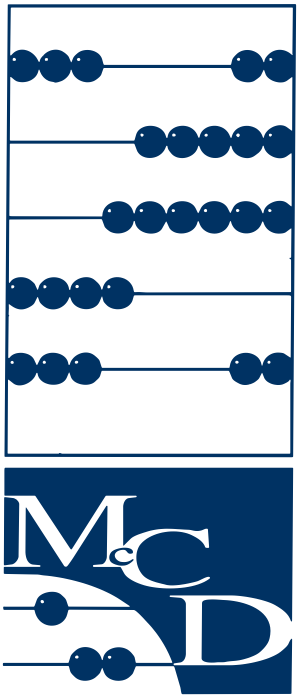
G. WARREN TRICKEY, B.COMM, CA
ROBERT D. SHANTZ, B.MATH, CA

CONSULTANT-ELDREN E. MCCONNELL, CA
CONSULTANT-JOHN W. FRANKLIN, CA



Financial Statements

Statement of Financial Position

As At March 31, 2002

Assets	2002	2001
Current		
Cash and short-term deposits	$ 1,203,309	$ 1,107,285
Grants receivable	203,959	7,330
Accounts receivable	136,256	94,875
Interest receivable	48,386	-
	1,591,910	1,209,490
Capital (note 4)	220,983	224,375
	$ 1,812,893	**$ 1,433,865**
Liabilitites		
Current		
Accounts payable and accrued liabilities	$ 168,443	$ 126,024
Net Assets		
Unrestricted	1,423,467	1,083,466
Invested In Capital Assets	220,983	224,375
	1,644,450	1,307,841
	$ 1,812,893	**$ 1,433,865**

Statement Of Changes In Net Assets

Unrestricted	2002	2001
Balance - Beginning Of Year	$ 1,083,466	$ 591,991
Net revenue for the year	336,609	547,838
	1,420,075	1,139,829
Allocation from (to) Invested in Capital Assets	3,392	(56,363)
Balance - End Of Year	**$ 1,423,467**	**$ 1,083,466**
Invested In Capital Assets		
Balance - Beginning Of Year	$ 224,375	$ 168,012
Purchase of capital assets	90,902	133,655
Amortization	(94,294)	(77,292)
Increase (decrease) during the year	(3,392)	56,363
Balance - End Of Year	**$ 220,983**	**$ 224,375**

Financial Statements

Statement Of Revenue And Expenditure

	2002	2001
Revenue		
Grants (Note 7)	$ 4,186,805	$ 3,588,741
Interest and other income	86,795	34,392
	4,273,600	3,623,133
Expenditure		
Salaries and benefits	2,033,375	1,406,994
Travel	284,592	351,437
Rent	152,145	176,560
Professional fees	564,044	381,137
Amortization	94,294	77,292
Printing	129,603	67,499
Postage and courier	105,150	53,839
Office	42,523	67,273
Professional development	58,667	48,441
Recruiting	69,566	104,138
Telephone	25,915	22,011
Equipment rental	21,633	22,550
Translation	107,027	70,332
Memberships	26,962	20,746
Repairs and maintenance	896	60,439
Library	168,735	42,619
Meetings	19,409	65,767
Marketing and promotion	18,118	21,579
Miscellaneous	1,374	9,799
Insurance	12,963	4,843
	3,936,991	3,075,295
Net Revenue For The Year	**$ 336,609**	**$ 547,838**

Financial Statements

Statement Of Cash Flows

	2002	2001
Cash Provided By (Used For)		
Operating Activities		
Cash from operations		
Net revenue for the year	$ 336,609	$ 547,838
Item not involving cash		
- Amortization	94,294	77,292
	430,903	625,130
Net Change in non-cash working capital balances		
(Increase) decrease in grants receivable	(196,629)	570,301
(Increase) decrease in accounts receivable	(89,767)	(42,593)
Increase (decrease) in accounts payable and accrued liabilities	42,419	24,162
	(243,977)	551,870
	186,926	1,177,000
Investing Activities		
Purchase of capital assets	(90,902)	(133,655)
Increase In Cash And Cash Equivalents During The Year	96,024	1,043,345
Cash and cash equivalents - beginning of year	1,107,285	63,940
Cash And Cash Equivalents - End Of Year	**$ 1,203,309**	**$ 1,107,285**

Notes To Financial Statements

March 31, 2002

1. Purpose Of The Organization

Canadian Coordinating Office for Health Technology Assessment (CCOHTA) is a national organization formed to facilitate information exchange, resource pooling and coordination of health care technologies in accordance with priorities of the Federal and Provincial Ministers of Health, which technologies include without restriction, all procedures, devices, equipment and drugs used in the maintenance, restoration and promotion of health. CCOHTA is incorporated, without share capital, under The Canada Corporations Act as a not-for-profit organization and files as such under the Income Tax Act.

2. Significant Accounting Policies

(a) Accrual Basis of Accounting

Revenue and expenditure are recorded on the accrual basis, whereby they are reflected in the accounts in the period in which they have been earned and incurred respectively, whether or not such transactions have been finally settled by the receipt or payment of money.

(b) Capital Assets and Amortization

Capital assets are recorded at cost less accumulated amortization. Amortization is provided on a straight line basis over periods of three years and five years.

3. Financial Instruments

The Organization's financial instruments consist of cash, short-term deposits, receivables, accounts payable and accrued liabilities. Unless otherwise noted, it is management's opinion that the Organization is not exposed to significant interest rate or credit risk arising from these financial instruments.

4. Capital Assets

	2002			2001
	Cost	Accumulated Amortization	Net	Net
Furniture and equipment	$ 398,826	$ 303,552	$ 95,274	$ 106,684
Library	427,824	302,115	125,709	117,691
	$ 826,650	**$ 605,667**	**$ 220,983**	**$ 224,375**

Notes To Financial Statements

5. Commitment

The Organization has leased premises at an annual rental of $70,060 plus operating expenses expiring August 31, 2004.

6. Additional Activities

CCOHTA is mandated to collect revenue for the Canadian Standards Association Health Care Technology Program. Under the arrangement with this organization the management of CCOHTA is not involved in the day to day activities. Therefore, the revenue and corresponding expenditures are not recorded in these financial statements.

7. Grants

	2002	2001
Alberta	$ 342,804	$ 294,063
British Columbia	468,284	401,702
Manitoba	140,140	120,215
New Brunswick	95,727	82,116
Newfoundland and Labrador	69,854	59,922
Nunavut	2,517	2,517
Northwest Territories	4,813	3,859
Nova Scotia	118,149	101,350
Ontario	1,382,429	1,185,871
Prince Edward Island	18,542	15,905
Quebec	100,584	100,584
Saskatchewan	125,479	107,638
Yukon Territory	3,881	3,329
Federal Government	1,313,602	1,109,670
	$ 4,186,805	**$ 3,588,741**