The Institute for Clinical Evaluative Sciences conducts research that contributes to the effectiveness, quality, equity, accessibility and efficiency of health care in the province of Ontario.

The Institute for Clinical Evaluative Sciences produces a variety of publications, reports and other materials. For more information about ICES and its products, please contact us at:

G106, 2075 Bayview Avenue
Toronto, Ontario
M4N 3M5

Telephone: (416) 480-4055
Fax: (416) 480-6048
E-mail: info@ices.on.ca

This report is available on the Internet
http://www.ices.on.ca

"Mapping trends & change" was produced by the ICES Research Transfer Unit

Writing: Andrea Bannister, ICES
Design: Eva Kiss, Toronto
Printing: Britannia Printers, Toronto

ICES

CHARTING changes in health care

Ongoing research projects cover a wide range of topic areas. Projects can be categorized in four different ways:

- ICES Atlas Reports will include updates on earlier atlases and report on changes to health and health services.
- Ministry of Health-initiated projects such as Waiting Times and Urgency Ratings for Total Joint Replacement.
- Projects conducted in partnership with stakeholder groups and organizations focused on specific diseases such as cancer, diabetes and arthritis.
- Researcher-initiated projects led by faculty scientists. Current projects include bone density testing, breast cancer recurrence, and the association between advanced patient age and rates of cancer surgery.

BOARD MEMBERS

ICES COMMITTEES

ICES-Ministry of Health (MOH) Liaison Committee oversees the ongoing interactions between ICES and the MOH including the prioritization of research projects and determination of the Ministry of Health's needs.
Information Access and Confidentiality Committee develops procedures to secure the confidentiality of ICES-held data and information.
Scientific Advisory Committee establishes research agenda and priorities ensuring ICES projects are relevant, effective and ethical.
Stakeholder Advisory Committee is comprised of representatives from more than 30 organizations and provides ideas for the ICES research agenda and the ongoing dissemination of ICES materials.

AUDITOR'S report

The accompanying summarized financial statements have been prepared from the financial statements of the Institute for Clinical Evaluative Sciences for the year ended March 31, 1999. We have audited those financial statements and reported thereon without reservation. In our opinion, the accompanying summarized financial statements are fairly stated, in all material respects, in relation to those financial statements from which they have been derived.

May 14, 1999

PricewaterhouseCoopers

PRICEWATERHOUSECOOPERS

STATEMENT OF FINANCIAL POSITION FOR THE YEAR ENDED MARCH 31, 1999

	1999			1998		
	Capital and Operating Fund	Restricted Fund	Total	Capital and Operating Fund	Restricted Fund	Total
Assets						
Current assets						
Cash	1,037,230	329,245	1,366,475	1,079,707	204,701	1,284,408
Short-term investments	–	1,074,129	1,074,129	64,856	1,230,359	1,295,215
Other receivables	141,633	93,237	234,870	88,452	3,095	91,547
Prepaid expenses	62,876	–	62,876	20,207	–	20,207
	1,241,739	1,496,611	2,738,350	1,253,222	1,438,155	2,691,377
Capital assets	661,605	–	661,605	822,197	–	822,197
	$1,903,344	$1,496,611	$3,399,955	$2,075,419	$1,438,155	$3,513,574
Liabilities and Deferred Amounts						
Current liabilities						
Accounts payable and accruals	325,109	7,374	332,483	166,826	15,254	182,080
Due to Sunnybrook and Women's College Health Sciences Centre	916,630	–	916,630	1,086,396	–	1,086,396
	1,241,739	7,374	1,249,113	1,253,222	15,254	1,268,476
Deferred capital grants	467,631	–	467,631	554,074	–	554,074
Deferred start-up grant	193,974	–	193,974	267,323	–	267,323
Deferred expense grants	–	1,489,237	1,489,237	–	1,422,901	1,422,901
	$1,903,344	$1,496,611	$3,399,955	$2,075,419	$1,438,155	$3,513,574

STATEMENT OF OPERATIONS FOR THE YEAR ENDED MARCH 31, 1999

	Capital and Operating Fund		Restricted Fund		Total	
	1999	1998	1999	1998	1999	1998
Revenue						
Grants						
Operating	4,568,043	4,394,384	–	–	4,568,043	4,394,384
Amortization of deferred start-up grant	73,349	114,954	–	–	73,349	114,954
Interest income	76,928	42,083	–	–	76,928	42,083
Other revenue	734,751	348,785	–	–	734,751	348,785
Amortization of deferred expense grants	–	–	193,422	526,196	193,422	526,196
	$5,453,071	$4,900,206	$193,422	$526,196	$5,646,493	$5,426,402
Expenditures						
Salaries and benefits	3,513,583	3,214,440	119,257	326,217	3,632,840	3,540,657
Consultative services	351,004	337,975	53,564	117,463	404,568	455,438
Computer supplies and software	379,636	334,950	359	24,402	379,995	359,352
Office and general	433,041	246,959	8,549	49,554	441,590	296,513
Travel	88,493	51,166	2,129	4,159	82,622	55,325
Amortization of capital assets	275,610	345,969	–	–	275,610	345,969
Professional	117,856	100,413	926	983	118,782	101,396
Administrative	206,468	206,366	–	–	206,468	206,366
Catering	17,092	25,340	1,677	3,418	19,169	28,758
Other	77,888	36,628	6,961	–	84,849	36,628
	$5,453,071	$4,900,206	$193,422	$526,196	$5,646,493	$5,426,402
Excess of revenue over expenditures for the year	–	–	–	–	–	–

ONTARIO PUBLIC SECTOR SALARY DISCLOSURE ACT, 1996

The following full-time employee of the Institute for Clinical Evaluative Sciences received a salary of $100,000 or more in 1998.

Dr. J. Ivan Williams - Salary $155,667.25 - Taxable Benefits, $1,040.52

This information is not part of the financial statements and therefore is not audited.

Full audited statements are available on request.

STATEMENT OF CASH FLOW FOR THE YEAR ENDED MARCH 31, 1999

	Capital and Operating Fund		Restricted Fund		Total	
	1999	1998	1999	1998	1999	1998
Cash provided by (used in)						
Operating activities						
Excess of revenue over expenditure for the year	–	–	–	–	–	–
Items not affecting cash						
Amortization of deferred start-up grant	(73,349)	(114,954)	–	–	(73,349)	(114,954)
Amortization of deferred capital grant	(202,261)	(231,016)	–	–	(202,261)	(231,016)
Amortization of deferred expense grants	–	–	(193,422)	(526,196)	(193,422)	(526,196)
Amortization of capital assets	275,610	345,969	–	–	275,610	345,969
Change in non-cash working capital	(107,333)	290,629	(98,022)	(8,800)	(205,355)	281,829
	(107,333)	290,628	(291,444)	(534,996)	(398,777)	(244,368)
Investing activities						
Transfer from operating grant to deferred capital grant	115,018	317,777	–	–	115,018	317,777
Purchase of capital assets	(115,018)	(317,777)	–	–	(115,018)	(317,777)
	–	–	–	–	–	–
Financing activities						
Deferred grants received	–	–	259,758	1,317,708	259,758	1,317,708
Increase (decrease) in cash and short-term investments for the year	(107,333)	290,628	(31,686)	782,712	(139,019)	1,073,340
Cash and short-term investments – Beginning of year	1,144,563	853,935	1,435,060	652,348	2,579,623	1,506,283
Cash and short-term investments – End of year	$1,037,230	$1,144,563	$1,403,374	$1,435,060	$2,440,604	$2,579,623
Cash and short-term investments are comprised of						
Cash	1,037,230	1,079,707	329,245	204,701	1,366,475	1,284,408
Short-term investments	–	64,856	1,074,129	1,230,359	1,074,129	1,295,215
	$1,037,230	$1,144,563	$1,403,374	$1,435,060	$2,440,604	$2,579,623

MAPPING trends & change

INSTITUTE FOR CLINICAL EVALUATIVE SCIENCES

MESSAGE from the Chair

John Evans

It has been a rich and rewarding year for ICES. Our researchers continue to explore and detail vast sections of the Ontario health care system; expanding the boundaries of health services research through the use of advanced methodology.

The two atlases published this year exemplify this excellence. *Patterns of Health Care in Ontario - Arthritis & Related Conditions* and *Cardiovascular Health & Services in Ontario* address the scope of health care services in relation to need, equity, access and quality. Research of this calibre and detail would not have been possible without the valuable collaboration of our partners: The Arthritis Society (Ontario), the Arthritis Community Research and Evaluation Unit and the Heart and Stroke Foundation of Ontario. Outreach relationships with other health organizations and researchers are essential for the growth of ICES and ensure that health services will be measured beyond southern Ontario and across the province.

ICES continues to cover new territories of research under the direction of Dr. J. Ivan Williams, appointed President and CEO of ICES in 1998. During his two year mandate, Jack will incorporate his more than 30 years of experience in the health research field into a strong new vision for ICES. I would like to extend a warm welcome to Jack on behalf of the members of the board.

The board has also seen changes over the year, in structure and membership. I thank returning members for their commitment and welcome the newest members of the board: Dr. Peter Glynn, Dr. Michael Guerriere and Kerry Marshall.

I must also acknowledge Dr. David Naylor's departure as CEO—a position he held since ICES' inception in 1992. Fortunately, David remains very much involved in ICES as Senior Adjunct Scientist. His tireless dedication and innovative approach to research—instrumental in the foundation of ICES—were recognized this year through the Medical Research Council's Michael Smith Award. In a very real way, this prestigious award, created in honour of a Canadian Nobel Prize winner, is a strong commendation for ICES. In accepting the award, David dedicated it to the collective efforts of ICES' faculty and staff. Indeed, the award was not only well-deserved recognition of David's commitment, but is an important validation from the Canadian research community of the value of ICES and the emerging field of health services research. I would like to congratulate David and the many other fine scientists at ICES for their achievements, and the management team and staff for their hard work and dedication.

It's been a privilege to watch ICES develop from scratch into a world-class organization in the incredibly short period of six years. I have no doubt that the excellent leadership and talented research team at ICES will be a match for the challenge of sustaining the remarkable momentum and adapting to the new opportunities in health services research.

John Evans
Chair of The Board of Directors

The work of ICES is like using a high-powered microscope that sheds focused light on a particular subject matter. This "light" has been used extensively by hospitals to highlight best practices and areas of improvement.
Ontario Hospital Association

MESSAGE from the President

J. Ivan Williams

It is time to take stock of health care in Ontario. The restructuring of health services and shifts in funding have altered the landscape of health services. It is important to map and measure the impact of these changes on the health of Ontarians and monitor the effectiveness, quality, equity, accessibility and efficiency of the services available.

ICES continues its wide range of research, and in 1998/99 we released two specialized atlases on arthritis and cardiovascular disease. Now we are focusing on Atlas Reports that will include updates on earlier atlases and report on changes to health and health services that have occurred in the 1990s.

The Atlas Reports will explore four areas:

- The Health of Ontarians series will focus on indicators of health status in Ontario and health behaviours and health problems reported in the Ontario Health Survey I (1990) and Ontario Health Survey II (1996).
- Uses of Health Services series will trace the most common uses of acute inpatient services and same day procedures; primary care, specialist, laboratory and imaging services in the community; and drug prescriptions for seniors.
- Indicators of Hospital Performance reports will compare lengths-of-stay, inpatient and outpatient services, adverse events, and readmissions for selected diagnoses and procedures for two specific years, 1991 and 1997.
- Ontarians and Their Health reports will be designed to measure public perceptions of health services, problems encountered in seeking health care, health issues related to work, and opinions about the state of health care in each District Health Council area. The public opinion survey is still on the drawing board as support and commitment by interested stakeholders is required before we can proceed.

The first Atlas Report, released in 1998, examined the increase of cesarean section rates in Ontario and the variations in rates across hospitals. This and other Atlas Reports will enable us to focus on key issues and provide evidence on patterns of practice for stakeholders who make decisions on health services.

Lastly, I would like to take note of the new governance structure for ICES, which was implemented over this past year. The board, Stakeholder Advisory Committee, Information Access and Confidentiality Committee, and Ministry Liaison Committee have met and are working. The Scientific Advisory Committee met last September and its next annual meeting is being planned. I would like to thank all of the participants for their continuing contributions toward the success of ICES.

J. Ivan Williams
President and CEO

ICES cardiac atlas can be expected to accelerate the progress being made to ensure that Ontario is a leader in the planning and provision of cardiac care.
Cardiac Care Network of Ontario

GROUNDWORK for a better health care system

There is no doubt that the health care system is a major concern for Ontarians. There are questions about accessibility of services, the impact of funding cuts and hospital amalgamations, and the implementation of new technologies and procedures. Generating answers is a role of ICES. Since its foundation in 1992, a network of scientists, researchers and clinicians with a wide range of backgrounds and experience have mapped the complex terrain of the health care system. ICES research spans the gap between raw health data and relevant research providing information and evidence that can serve as a compass for health policymakers and decision-makers, and help them plot the most effective and efficient path for the health care system.

The Institute for Clinical Evaluative Sciences is an independent health services and clinical research organization with a mandate to conduct research that contributes to the effectiveness, quality, equity, accessibility and efficiency of health care in Ontario.

Over the past year, ICES research provided detailed information on:

- Variations in the procedures and outcomes of cardiovascular care and services
- Resources available to Ontarians with musculoskeletal diseases such as arthritis
- Effectiveness of drug prescribing patterns
- Rising rates of cesarean sections and possible reasons for regional differences

WHAT WE DO

Document patterns of care
Reports such as ICES Practice Atlases and Atlas Reports chart regional health care trends and patterns in Ontario.

Conduct population-based health services research
Researchers track health services and treatments for diseases such as cardiovascular disease or cancer, and compare outcomes.

Develop decision tools
ICES researchers and collaborators develop and test a range of innovative tools to help health professionals and patients make informed treatment choices.

Promote more effective patient care
Partnerships with health professionals and consumer representatives promote more effective and efficient care by improving drug prescribing and implementing evidence-based guidelines.

Forge links and partnerships
ICES collaborates with research groups, health care organizations, policy and decision-makers, and stakeholder groups in and beyond Ontario.

Train tomorrow's researchers
Graduate students and research fellows pursue studies in clinical and health services research.

Disseminate research
Research findings are made accessible to a wide audience through targeted publications.

LANDMARK Atlases and Reports

Following the trail blazed by the ICES Practice Atlases—*Patterns of Health Care in Ontario, Volumes 1 & 2* (1994 and 1996)—two specialized atlases launched in 1998/99 detailed the status of health care in the province. *Patterns of Health Care in Ontario - Arthritis & Related Conditions*, edited by Dr. Elizabeth Badley and Dr. J. Ivan Williams called for a comprehensive management strategy to help better care for the 1.5 million Ontarians with arthritis and related conditions. A collaborative effort with The Arthritis Society of Ontario and the Arthritis Community Research and Evaluation Unit, this Atlas led to the formation of a provincial task force on arthritis management. "The task force will address some of the issues we found in our research and hopefully in turn lead to a coordinated management strategy and help improve the lives of people with arthritis and their families," said Williams. Currently, some patients with arthritis face long waits for orthopedic surgery, physiotherapy and occupational therapy.

Cardiovascular Health & Services in Ontario, edited by Dr. C. David Naylor and Pamela Slaughter, is the first comprehensive analysis of cardiovascular disease—the number one cause of death in Ontario. The Atlas, supported by the Heart and Stroke Foundation of Ontario and the Cardiac Care Network of Ontario, found variations in the treatment and outcomes for cardiac care across the province. "It's encouraging that health care providers are using this information as the basis for quality improvement initiatives," said Naylor. "If we could reduce the risk factors for cardiovascular disease and reduce variations in treatments across the province, scores of lives would be saved each year."

SURVEYING NEW TERRITORY

Here are some highlights of other ICES projects released during the past year:

- Hospitals with higher volumes of rare pancreatic surgery have lower rates of mortality was the major finding in an ICES study on behalf of the Pancreatic Surgery Steering Committee, headed by Dr. Neill Iscoe. This was a follow-up to the *ICES Practice Atlas on Cancer Surgery in Ontario* (1997).
- A survey of close to 800 health care providers by Drs. David Alter and C. David Naylor found that some Ontarians receive preferential access to cardiovascular procedures.
- The number of physicians over the age of 65 is growing and fewer younger doctors are practising which could result in less access in medical services, a study by Dr. Ben Chan found.
- After a decade of decline, the rate of cesarean sections in Ontario has increased in the last four years and there are significant hospital and regional variations, according to an Atlas Report by Dr. Geoff Anderson.
- Wide variations in treatment and waiting times for stroke patients were reported in the *Inventory of Stroke Care in Ontario: Hospital Results*. Dr. Jack Tu and Joan Porter conducted the survey in conjunction with the Heart and Stroke Foundation of Ontario, Ontario Ministry of Health and Ontario Hospital Association.

HIGHLIGHTING pathways to health

Eighty per cent of the 5,000 Ontarians diagnosed each year with breast cancer are women with early stage breast cancer. They must decide between two equally effective treatments: lumpectomy followed by radiation or mastectomy. To help women make this difficult choice in consultation with their surgeon, a team of ICES researchers developed a decision aid: *Making Choices About the Removal of My Breast Cancer: What do I Prefer?*

"After just being told that she has breast cancer, it is hard for a woman to absorb all of the options being presented to her by her doctor," said Dr. Carol Sawka, a Senior Adjunct Scientist at ICES and Principal Investigator along with Senior Adjunct Scientist, Dr. Vivek Goel. "The booklet and audiotape help women choose what's right for them."

I would recommend this tape and booklet very highly. It makes your decision a lot easier, going step by step and it shows you what your results look like after surgery.
Breast cancer patient

The culmination of three years' research, the decision aid allows women to review information and photos taken after surgery, and to consider the advantages and drawbacks of both treatment methods. Based on Cancer Care Ontario's Treatment Practice Guidelines Initiative, *Guideline on Breast Cancer Surgery*, it was developed in consultation with women living with breast cancer, general surgeons and oncologists. The Canadian Cancer Society, Ontario Division, funded the production and distribution of the kits.

Since the release of the decision aid in May 1998, many women diagnosed with breast cancer have commented that the kit was instrumental in making their decision. Future plans include an interactive version of this decision-making tool.

NEWSLETTER HITS MILESTONE

informed, the quarterly newsletter for family physicians, celebrated its fifth birthday this year. More than half of Ontario family physicians and many other health professionals now receive the free-of-charge *informed*—a concise summary of current research information. Covering topics ranging from diabetes to X-rays to urinary incontinence, *informed*, edited by family physician Dr. Diane Kelsall, is becoming increasingly popular with consumers as well. The newsletter is also available on the ICES web site at: http://www.ices.on.ca/docs/informed.htm.

...a few comments on the quality of information and usefulness in informed. As a new physician setting up, I've been thinking about continued medical education and trying to locate good relevant sources of critically appraised primary care information. Thanks!
Hamilton, Ontario

RESEARCH on the map

Research and evidence can be important tools for health care professionals, policymakers, hospital administrators, decision-makers and the general public, and can act as a catalyst for change in the health care system. That's why ICES has made the distribution and evaluation of research products an important priority through:

Atlases & Atlas Reports – Atlases have evolved from the first general overview of Ontario's health care services in 1994 to specialized atlases on cancer surgery, arthritis and cardiovascular disease, to Atlas Reports which update progress and change.

Technical Reports & Briefing Notes – ICES researchers have produced detailed reports on a wide range of health care issues in the Technical Reports series. Briefing Notes summarize the key points of these often complex reports.

Web site – (http://www.ices.on.ca) offers online visitors easy access to research documents, and information on ICES and its associated faculty and staff.

Journal articles – Articles by ICES faculty and staff are published in prestigious medical publications around the world.

Media – ICES projects are in the news, allowing Ontario residents a more detailed look at their health care system.

BUILDING BRIDGES

During the past six years, ICES has been privileged to work with stakeholders who share the belief that research information and evidence form the bedrock of a strong health care system. The work of ICES is heavily dependent on the support, input and expertise of these organizations, and the continuation of strong relationships.

Key partners, supporters and collaborators from 1998/99 were:

The Arthritis Society (Ontario)
Arthritis Community Research & Evaluation Unit
Canadian Cancer Society, Ontario Division
Cancer Care Ontario
Cardiac Care Network of Ontario
Heart and Stroke Foundation of Ontario
Ontario Hospital Association
Ontario Medical Association
Ontario Ministry of Health