
Centre for Health Evidence

Year 2002-2003

Annual Progress

January 1/02 to March 31/03



**Centre for Health Evidence
Faculty of Medicine and Dentistry, University of Alberta
Edmonton, Alberta, Canada**

Contact Information

Centre for Health Evidence
2105 Research Transition Facility
University of Alberta
8308 – 114 Street
Edmonton, Alberta T6G 2E1
Tel: (780) 492-6632
Fax: (780) 492-1748
info@cche.net
<http://www.cche.net>



CHE Progress 2002-2003

Mission

The CHE mission is to help practitioners and policy makers:

- **know what to do...**
because quality knowledge resources are assembled, integrated and packaged using simple, user-specific, Internet desktops,
- **do what is known...**
because on-line aids help users recognize problems, formulate questions, select resources, and acquire, appraise and apply knowledge, and
- **understand what is done...**
because information use is monitored and managed.

Values

The Centre for Health Evidence believes in:

Excellence

We strive for excellence in all we do.

Innovation

We strive to be innovators, instructors, and investigators in helping health providers put their best knowledge to work in ways that suit their needs.

Building Relationships

We endeavor to build associations with new clients while maintaining and improving relationships with existing clients.

Teamwork

We are committed to teamwork because individuals contributing to a common goal can realize extraordinary results and far greater achievements than any individual on their own.

Customization

We honour our clients and partners by customizing our products and services to meet their individual needs.

Adaptability

We are committed to a flexible culture which stimulates and relishes change.

Employee Support

We support employees in finding fulfillment in their work, achieving work-life balance, and reaching their professional and personal goals. We foster a work environment of creativity, development, and innovation.

Open Communication

We value open communication and receptiveness to new ideas and in sharing these ideas with others.

Welcome Message

Around the Centre we are pushing the envelope on the real final frontier---virtual space! Exciting opportunities are knocking in the field of e-learning, and what was seemingly impossible 10 years ago has become both a reality, and desire of organizations and universities around the world. The Centre for Health Evidence is well placed to take advantage of these opportunities.

The Centre for Health Evidence's capacity has grown from one large project, to over twenty this year alone. Our staff complement has increased (almost doubling in the past year) giving us the ability to focus our skill sets in a number of areas including knowledge integration and technology. Our current projects, as well as pending ones, challenge us to be increasingly creative in our approach to solutions.

Since our inception in 1998, the Centre has worked with partners around the globe. This past year, our efforts were focused closer to home with many projects being initiated within the University of Alberta and with provincial health authorities. The core activities of CHE have become developing and supporting virtual learning, practice and research communities. This re-defining of parameters will help us move towards a more structured business plan and approach in the year ahead. CHE's profile continues to gain prominence as our reputation for leading edge technology in the area of "practice-based evidence" grows.

With the majority of our budget coming from grants, resources are a continual challenge. Alternate models of funding are being explored including projects of a purely service nature. The University continues to be supportive of our "out of the box" approach and has met with us on a number of occasions to explore how the Centre can continue to thrive within an academic environment.

As we look forward to the coming year, we are excited by the possibilities afforded to us by technology, education, and the motivation of health professionals to improve their practice.



Year in Review

In order to reconnect with local stakeholders within the informatics, health, and education communities, CHE held an Open House early in 2002. The event, which provided an opportunity for visitors to interact with CHE staff and try out CHE technologies and online tools, was well attended.

Staff retreats were held in spring 2002 and 2003 to revisit CHE strategic directions and plans for future growth. Outcomes included a decision to grow CHE capacities in the areas of Virtual Learning Communities, Desktop Services and Knowledge Integration. Three additional staff members were hired to accommodate new growth.

In December 2002, the article, "CHE identifying, packaging and disseminating the best health evidence" appeared in the *Faculty of Medicine and Dentistry News* V.5, 2. This publicity was most welcome as CHE is seeking to raise the awareness of its potential contribution to both the universities and the health authorities in Alberta.

Highlights

In 2002/03, the CHE continued to build a strong foundation of know-how and content in the fields of evidence-based informatics and evidence application to practice ("practice-based evidence").

Users' Guides Interactive

Interactive versions of the Users' Guides, developed by CHE, meet the needs of multiple user groups.

The Users' Guides Interactive, launched in January 2002 was a complete re-conceptualization of the core explications of the central concepts of evidence-based practice that were first published as a series of articles in the *Journal of the American Medical Association*. Dr. Hayward edits the electronic publication along with Drs. Gordon Guyatt and Drummond Rennie. 2002 saw CHE focus on the development of a version of this product for instructors, which offers comprehensive support for a wide range of evidence-based practice interventions. This offering includes high-quality teaching resources, such as slide sets and interactive teaching tools, suitable for hospital rounds, workshops, and credited programs. Plans are underway to further expand this product for a variety of users and uses.

Users' Guides to the Nursing Literature

Reshaping the core ideas of evidence-based practice for a broader range of health professionals.

The CHE has been asked to join the editors of *Evidence-based Nursing*, to produce a new version of the Users' Guides specifically for nursing. With Dr. Hayward as the electronic editor we anticipate release of a highly influential book, CD-ROM and website for the nursing profession. In addition, CHE staff Tanya Voth and Seana Collins are contributing as authors for the "Finding the Evidence" chapter.

POSP Practice-Based Evidence (PBE)

Practice-Based resources and tools provide practitioners with continuing professional development opportunities.

CHE has partnered with the Alberta Medical Association's Physician Office System Program (POSP) as part of their change management mandate. CHE understands that most physicians would like to incorporate more evidence-based medicine into their practices, but knowing where to look, what to trust, or how to connect evidence with practice can be difficult. In 2002, CHE offered three hands-on workshops in order to demonstrate a practice-based approach to managing knowledge in the information age. During the workshops, participants used an electronic learning environment customized for POSP. The "POSPPBE Desktop" became a single point-of-access for workshop presentations, surveys, tutorials, interactive cases, activities, information resources, professional development, and peer-to-peer support. Alberta physicians can now purchase a subscription to the POSPPBE Desktop.

CHE Desktop

Integrated resources and tools provide continuing professional development and teaching opportunities to Department of Medicine faculty and trainees.

CHE has developed an online learning environment for faculty and trainees in the Department of Medicine at the University of Alberta. This online environment facilitates access to specialty-specific knowledge resources and custom tools such as journal club and case of the week. CHE will work closely with medical divisions in 2003 to help integrate new clinical resources and provide additional curriculum support.

Critical Appraisal of the Health Sciences Literature

Masters-level course on critical appraisal, developed through a collaborative effort with CHE.

With the assistance of CHE technologies, Drs. Robert Hayward and Duncan Saunders taught "PHS 693: Critical Appraisal of the Health Sciences' Literature" as a hybrid course. The course was offered in Winter 2002 and provided students an opportunity to use an online learning environment and wireless network for in class instruction. Dr. Hayward and staff will offer the course again in Winter 2004.

Evidence-Based Medicine Task Force Workshops

CHE partners with academic and education society representing largest group of physicians in the United States; helps develop and deliver workshop series that uses CHE Internet tools and techniques.

The CHE continues to collaborate with the Society for General Internal Medicine (SGIM) EBM Task Force to develop a continuing medical education opportunity for their membership. The current offering includes a one-day workshop partnered with a 30-day follow-up, which targets both teachers and practicing clinicians. Workshops were held in Atlanta, Chicago, Cincinnati, and New York in 2002. The workshops make extensive use of CHE technologies, resources, and expertise in the area of evidence-based practice. As a result of their success, CHE has been invited to participate in the SGIM Annual General Meeting in 2003 with more workshops planned for the coming year.

TORCH Infostructure Support

CHE partners with academia to offer a unique online learning environment for Cardiology researchers at the University of Alberta and the University of Calgary.

Tomorrow's Research Cardiovascular Health Professionals (TORCH) is an integrated program based at the Universities of Alberta and Calgary, with the mission to prepare Canada's next generation of trans-disciplinary cardiovascular health research leaders through a structured, dynamic and innovative training program. CHE has partnered with the TORCH program to offer trainees and mentors an integrated online learning environment. The first phase of the TORCH Program was launched in July 2002 with the TORCH virtual learning community developed by CHE along with a series of workshops. CHE provides ongoing technical, development and content support to the TORCH Program.

SEARCH Curriculum, Infostructure Support and Network Development

Innovative initiative to deploy online an exciting new curriculum about generating and using health evidence and to grow and support a "virtual learning community" using Internet technologies.

The SEARCH Program (Swift, Efficient, Application of Research in Community Health) is a two-year health research and professional development program for community-based health professionals. This Program provides education, training, mentoring and research collaboration through a virtual learning community of managers, health professionals and physicians in partnership with university-based researchers and teachers. Throughout the two years, participants engage in seven, five-day, residential face-to-face modules. Online learnings between modules including 'webinars' using web-based conference tools, and project work within their current work sites. CHE was charged with building the capacity to create and sustain the information and online educational resources required to design, deliver, monitor, and evaluate the SEARCH virtual learning community. CHE continues to work with faculty and staff members to provide the learning technologies and processes in support of the SEARCH curriculum, mentoring process and research collaboration. Dr. Hayward continues to be a core faculty member providing leadership and instruction in the "Choosing Evidence" theme. Steven Clelland, SEARCH Curriculum Coordinator, is responsible for the overall delivery of the curriculum as well as coordinating the team efforts at CHE.



Infrastructure

CHE Internet Information services continued to experience exponential growth in 2002. Hundreds of users are registered for private, integrated desktops, delivered over the Internet from the CHE server farm. The technology has been installed in hospitals, offices, and on home computers across Alberta, Canada, the US, Europe and Hong Kong.

The following technical achievements for this year are noted:

Support for more simultaneous users

- New network switches were purchased and installed to work with the fibre-optic connections and higher transmission speeds.
- The CHE backbone/server room was reorganized and redeveloped to meet a new need for delivering CHE technology to users.

Software and data storage capacity expanded

- Storage on servers and mobile computers was increased.
- An additional high-capacity Internet server was purchased, installed and configured this year. The CHE now has 11 server computers that have coordinated functions to support a high-capacity Internet information service. This is compatible with health region information systems and can serve many provinces simultaneously.
- Latest versions of operating systems, data management software, editing and production software were installed to bring staff up to the latest Microsoft operating system, Windows XP and to bring servers up to the latest server technology, Windows 2000.
- A partner organization has moved its server into the CHE network/domain given CHE's more stable environment. This server is based on the Linux kernel and its maintenance and support is provided by the CHE network team.

Technical standards and protocols

- A new firewall was purchased to provide a higher level of security as well as protection from external intruders.
- Installation of more layers of redundancy, back up and network security was completed.
- A new anti-virus protection was purchased and deployed to our infrastructure
- The CHE server farm was re-configured to enhance security
- The CHE network was separated into two sub-networks to support the need for higher security.
- Safety of equipment was secured through implementation of temperature and humidity controls in all our offices and server room.

Our facilities at the University of Alberta allow us to test and deploy new technologies for distributed knowledge management on the Internet. These include:

- A new system for using the Terminal Server Internet Connector license was developed and implemented.
- Implemented SQL database services that will provide stable, secure and scalable databases.
- Development of PDA technology was introduced.
- An SSL server was developed which transfers data using a secure protocol.

CHE now boasts a Microsoft .NET environment for development as well as for connectivity.

CHE Staff

The Centre for Health Evidence continued in its major growth phase in 2002, once again doubling our staff and predicting ongoing expansion in the year ahead. Our expertise was enhanced by the hiring of both technical and administrative staff.

Directors

The Centre's overall direction and strategic plans are under the capable guidance of two visionary physicians and innovators.

Dr. Robert Hayward is a teacher, clinician, and innovator in the areas of practice-based evidence and knowledge integration. He leads the CHE in the development of technology and teaching tools and is a leader in the development of dynamic curriculum for evidence-based practice.

Dr. Bruce Fisher provides insight into issues facing the practicing clinician.

Program Coordinator

The Program Coordinator provides both strategic direction to CHE and deals with daily operational issues.

Kelly Deis, the full-time Program Coordinator, has left CHE for a year to travel with her husband out of the country. She returns in July 2003.

Jean Kipp has been contracted on a part time basis to assist with the Human Resource functions and financial operations of CHE in Kelly's absence.

Program Managers

This year it became apparent that CHE needed to expand its leadership and develop its organizational structure and culture in keeping with the increasing opportunities and related workload. To meet these needs, Program/Project Manager positions were created.

Tanya Voth is responsible for CHE work related to the many service contracts and for coordinating the efforts of the Information and Technical Specialists on staff. She continues to manage the Users' Guides Interactive projects, as well as customized desktop development for CHE project partners.

Steve Clelland manages those aspects of the SEARCH Program contracted to CHE by coordinating people and forces to ensure the program's successful operational delivery. Steve is also broadly charged with formally developing the SEARCH Network. Steve contributes to the overall management of other CHE projects.

Information Specialists

The CHE Information Specialists manage individual projects and contribute to the delivery of educational initiatives. Presently, all three Information Specialists are Masters-level librarians.

Louisa Fricker manages the POSPPBE project and the SEARCH program's online environment. She also continues as the CHE Webmaster and often leads the training of new staff.

Seana Collins managed the TORCH and SGIM projects. Because of her interest in evidence-based medicine, she was also involved in projects such as "PHS 693: Critical Appraisal of the Health Sciences' Literature". Seana left CHE in mid April 2003 to further her career in library sciences.

Marielle Layton brings to CHE a strong background in health care, having worked as a pharmacist for a number of years. In April 2003, she completed a Master of Library and Information Studies degree at the University of Alberta. She contributes to the UGI and UGN projects and will take the lead on expected new projects.

IT Architect

The It Architect manages the Centre's computer network and infrastructure needs, and contributes to projects with unique technical demands. This year has seen changes in our required technical resources, and technical security has been a high priority.

Igor Norsic is on hand at all times to respond to staff needs and technical challenges associated with CHE projects. Igor's interests and skills also lie in the area of strategic business planning and organizational change theory. As CHE continues to grow rapidly, Igor contributes all of his skills to help the CHE team move forward and develop a sustainable future.

Technical Administrator

This position was created in early 2003 to support the It Architect and the technical operations of CHE.

Gary Wong is the newest member of the CHE team and has already shown himself to be a great support internally and to our project partners. His background in psychology may come in handy as he learns the ins and outs of CHE staff!



Technical Specialist

This year we added a new technical support layer to our organization. Technical Specialists create and maintain online educational environments for CHE projects, assist with development of end user documentation, and perform data collection and database analysis.

Jennifer Patry contributes to nearly all CHE projects in a technical support role, supporting both staff and users. The creation of this position in November 2002 was a great success and a second Technical Specialist position will be filled in April 2003.

Administrative Staff

The growth of CHE has meant a growing need for administrative support.

Marilyn Weiss joined the CHE in September 2002 as the Office Manager. Her contribution to CHE has been invaluable as she employs her many skills to keep the rest of the team running smoothly. Marilyn joins us after working in a rural regional health authority for many years.

Val Rivers in the Department of Medicine has provided administrative assistance for Dr. Hayward's clinical role since the CHE became aligned with this department April 2002.

Fellows

The CHE fellowship program offers MD, PhD and health informatics students with unique opportunities for career development in the field of evidence-based Informatics.

Dr. Raymond Leung has continued his fellowship with the CHE this year. Raymond has developed a number of worksheets and calculators that CHE uses in projects and has provided leadership in the area of personal digital assistants and hand-held devices for practicing clinicians.

Students

The CHE continues to welcome library school practicum students looking to experience an alternative work environment for librarians.

This past year, two students - **Shona Dippie** and **Dino Roppo** – spent time with us and contributed to our projects.

Publications

Lau F, Hayward RS. Building a virtual network in a community health research training program. *J Am Med Inform Assoc* 7: 4 361-77

Lau F, Straub D, Hayward RS. Fostering an Internet-based work group in community health through action research. *Journal of Healthcare Information Management* 2001; 15(3) 207-221.

Hayward RSA, Fricker LHM. Practice-Based Evidence Initiative – Alberta. *Evidence-Based Health Care Newsletter* (Dept of Clinical Epidemiology and Biostatistics, McMaster University), Dec 2002, Vol 22.

Hayward RSA, Voth TK. Users Guides Interactive. *Evidence-Based Health Care Newsletter* (Dept of Clinical Epidemiology and Biostatistics, McMaster University), Dec 2002, Vol 22.

Presentations

CHE staff took every opportunity this year to make informal and formal presentations to health practitioners, organizations and key stakeholders on the work of the Centre. Presentation formats took advantage of new Internet technologies that allow interactive presentations over dispersed geography.



Financial Summary

YEAR (April 1 – March 31)	2002 - 2003
REVENUE	
Honoraria	3,443
Grant Income	480,598
Service Income	223,259
Total Revenue	\$707,300
EXPENDITURES	
Infrastructure	46,489
Operational Expenses	80,356
Salaries and Benefits	429,295
Total Expenditures	\$556,140

Future Directions

Key Initiatives

In the coming fiscal year, CHE will continue to work at clearly defining who we are and what we do. Increasing our sense of focus is key in our environment of rapid growth and endless possibilities. Our business focus statement will define our niche and priorities for work. We will be clear on projects and work that we seek and what we accept as our business. We will strive to compete on value and selecting partners/creating alliances will be our model. Continuous Quality Improvement will always be part of our processes at CHE. We will seek to formalize both external customer and internal staff satisfaction feedback, recognizing the strong link between the two. Our resource planning will continue to include revenue generation, with a new emphasis on cost reduction and cost avoidance. Policy shifts will be both strategic and real (operational).

New Directions

Given our expected continued growth in the work we do, and therefore an increase in the number of people that make up the CHE team, it will be necessary to re-evaluate the interdependence of the team structure and our CHE systems. The CHE organizational chart will be updated, as will the position descriptions. Streamlined processes and communications will enhance our internal efforts. The CHE culture will embrace building and sustaining both capacity and high performance for the future, recognizing that transition/change is inevitable as we seek to be relevant and innovative. More emphasis on change management initiatives will assist CHE in addressing any obstacles that we are certain to encounter as we transition to a clearly articulated future state.

Additional Documents of Interest

The Centre for Health Evidence has additional documents which may be of interest. They can be requested by calling the main office at (780) 492-6632 or sending an email request to info@cche.net. They include:

- ☞ CHE Offerings – includes the mission, objectives, capacities and opportunities of CHE
- ☞ CHE Brochure – includes our contact information, who we are and what we do as well as our objectives
- ☞ CHE Infrastructure – describes our network, security policies, wireless network, etc.
- ☞ CHE Desktops – explains the different types of desktop services CHE has to offer
- ☞ CHE Surveyor Services – explains the uses and features of our surveyor services.