
Centre for Health Evidence

Year 2003-2004

Annual Report

April 1, 2003 to March 31, 2004





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

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Message from the Director

In "The Tipping Point," *The New Yorker* writer Malcolm Gladwell observes that the conditions for social change often build imperceptibly until, at some unexpected point, interest reaches a critical mass, a Tipping Point is crossed, and change happens suddenly and thoroughly. Influential ideas, behaviors, messages, and products start and spread like "social epidemics."

The Centre for Health Evidence (CHE) has promoted front-line health knowledge integration for the better part of a decade. Now, it seems, a Tipping Point is crossed. From Federal Departments to Regional Health Authorities, every participant in the health care endeavor is aware of best evidence: the need for it, the lack of it, the various definitions of it. Most importantly, interest has shifted from the production of evidence to its application at all levels of health care decision-making. We hear many new slogans: "research transfer," "research translation," "knowledge transfer," "evidence-based practice," "practice-based evidence," "embedded evidence," "learn-you-work," "just-in-time evidence," etc. This is what we do -- connect evidence with action -- and it's keeping us incredibly busy!

This last year has brought not one but many Tipping Points to the CHE. Our innovations have crossed a threshold of ease, engagement and acceptance. CHE Virtual Learning Communities, Virtual Practice Communities and Virtual Research Communities have spread world-wide. The "Users' Guides Interactive" approach to promoting practice-based evidence is used by students and professionals in all the health disciplines. With these and many other successes come new opportunities for us to learn about how to help decision-makers work with best evidence, enhance staff development, and continue growth in our capacity to make a difference.

We move forward with enthusiasm and excitement, hoping to share the fun with as many of you as possible!





Vision, Mission, and Value Statements

Vision

Centre for Health Evidence (CHE) will lead the way for health service providers toward unparalleled excellence in knowledge transfer, learning enhancement, practice-based evidence, and innovative research.

Values:

At CHE, we believe in:

- Excellence
- Adaptability
- Employee Support
- Teamwork
- Innovation
- Open Communication
- Building Relationships

Mission:

CHE will 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;

Understand what is done...because information use is monitored and managed.

CHE works with professional organizations, educational institutions, and other key stakeholders in the health sector. We partner with and support projects globally, while our infrastructure (servers, databases, security) and offices are housed at the University of Alberta in Edmonton, Alberta, Canada.

Operational funds are 100% derived from our projects, grants and service work. Therefore, we are always open to initiatives where there is alignment with our goals. The more a project challenges us to think outside the box, the more likely we are to be enticed into working together! Challenges have been in abundance this year.

Ethical Standards of Practice

CHE adheres to ethical standards of practice. Desktop users are asked to review a privacy and confidentiality statement that outlines how data being collected is used and shared. Sensitive information is encrypted. CHE is proactive in training staff members to make correct, ethical decisions not to view data unless necessary, and if data must be accessed, it is considered confidential whether or not it seems to be private. All CHE staff members have received Health Information Act training.



Activity Highlights

The field of “practice-based evidence” is CHE’s area of expertise. Our capacity and experience allow us to address the knowledge support needs of our project partners through the use of leading edge technology. Our mantra, “Know what to do, Do what is known and Understand what is done” is a good way to highlight CHE activities for this year.

Know what to do....

Electronic publishing

CHE is the exclusive electronic editor for the *Users’ Guides to the Medical Literature*. We are currently working with an international group of nurses to develop a complementary resource for that audience. Each of these opportunities require staff to stretch the perception of how information can inform practice in ways that personify an evidence-based approach to problem solving . . . that is, “Can I trust the information?” (validity); “Will it make a difference?” (importance); “Can I use this information with my patient/population?” (applicability); and “How do I apply this information?” (action).

Do what is known....

Internet “Desktops”

Integrating *clinical tools with knowledge resources* helps health service providers answer and support each other as they tackle the questions facing them daily. CHE customizes VIVIDESK™ technology to create unique online environments tailored to the needs of each partnering organization. These user-friendly “Desktops” are secure and private, and allow access to a wide range of applications. Because they run over

The CHE Business Plan defines goals that are used to measure our progress. The next section of this report spotlights selected accomplishments and progress towards our goals.

the Internet, users can work together or individually across geography and time. This past year, CHE developed/maintained over 16 desktops which accounted for the majority of staff time. Over 3,500 users accessed our desktops last year.

Understand what is done....

Consulting

Many organizations and individuals at the regional, provincial, national and international levels have drawn on CHE expertise in technology, context management, knowledge integration, information management, and critical appraisal to inform their practice and/or process. The collective knowledge helps inform future CHE initiatives so every project learns from what has come before.

Online courses in EBM

Whether you want to participate in a formal university course, train medical residents, or educate health professionals through face to face or virtual workshops, CHE has a contribution to make in the areas of critical appraisal and clinical decision support. Events are often sponsored in partnership with professional associations or universities and can fill an hour, a day, or a semester!

CHE Coordination Team

Top row, left to right:

Louanne Keenan (SEARCH Course Coordinator as of May 2004)

Rob Hayward (Director)

Igor Norsic (IT Architect)

Bottom row, left to right:

Tanya Voth (Program Manager)

Marilyn Weiss (Office Manager)

Kelly Deis (Associate Director)

Missing: Steve Clelland (SEARCH Curriculum Coordinator)



Progress on Goal#1

CHE will be a leader in the creation, integration, dissemination, and application of knowledge related to evidence-based decision-making for the health professional.

- ☑ Implemented the Health Level 7 Context Management Standard (CMS) which synchronizes and coordinates disparate applications to ensure secure and consistent access to health information from heterogeneous sources.
- ☑ Invested in strengthening our strategic partnership and commitment to the SEARCH initiative as it positions itself to respond to growing opportunities.
- ☑ Partnered in online interactive educational opportunities across multiple universities. "Critical Appraisal of the Health Sciences Literature" was a Master's level course offered through the Western Dean's agreement.
- ☑ Actively connected people, projects, and resources to achieve something better, together.

In the last year:

- ☑ New partners, nationally and internationally, reinforced the Centre's position as a leader in the field.
- ☑ Client focus expanded to include more allied health professionals, pushing staff to explore resources relevant to multiple disciplines.
- ☑ Products that will enhance the usefulness of the *Users' Guides to the Medical Literature* were developed and pilot tested. Full roll out will occur in the coming year.



**Clients
keep
coming
back.
We must
be doing
something
right!**



New In-House R&D



Research & Development Team

Mohamad El-Hajj &
Jenny Altarejos

Progress on Goal#2

CHE will be a leader in the use of information integration for decision support.

- ☑ Staff skill set expanded to include programmers/software developers; all staff improved their skills to reduce dependencies on any one individual.
- ☑ Tool kits to support online learning were defined and enhanced.
- ☑ Staff continued to monitor new technologies as a means to improve the online learning experience.
- ☑ Our IT disaster recovery plan kept CHE systems problem free after frequent external security and virus threats.
- ☑ CHE network monitored and enhanced proactively according to current industry best practices.
- ☑ Network documentation improved to better inform project partners.

Revolutionizing e-publications

Users' Guides Interactive helps bridge the gap between what we know and what we do.

For more information, please visit <http://www.usersguides.org>.

Information Specialists

(from left)
Louisa Fricker &
Naomi Castle



Technology Infrastructure up 40%
IT purchases included new servers and testing equipment
needed to meet growing demand.

Progress on Goal#3

CHE infrastructure will support evaluation and experimentation in health informatics

- ☑ SQL databases were put in place to handle increasingly larger volumes of data transfer.
- ☑ Intellectual property considerations clarified for project partners.
- ☑ Confidential Disclosure Agreements implemented to ensure a positive and open atmosphere for sharing ideas and innovation.
- ☑ Enhanced attention to issues of privacy and confidentiality.
- ☑ Security measures addressed current health system concerns.
- ☑ Separate servers designated for research, development, and testing to eliminate potential contamination.
- ☑ Help Desk support established for desktop users and/or funding organizations. Last year we responded to 633 requests, the majority of which were “instructional” or “user training” questions.
- ☑ Product testing on multiple operating systems (MAC, Windows 95, 98, 2000, XP and NT 4.0) ensured user’s Help Desk requests are understood and responded to knowledgeably.

CHE has Outstanding Staff



Technical Staff

(from left)

Gary Wong (Network Administrator)

Jen Patry (Technical Specialist)

Denica Pike (Technical Specialist)

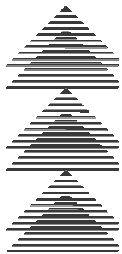
**Staff
numbers
up 30%**
Staff increases
included
Network
Administrator,
Technical
Specialist,
Information
Specialist,
Software
Developer,
Visual C++
Developer

Progress on Goal#4

CHE will achieve organizational excellence.

Highlights from last year:

- ☑ First formal business plan developed with input from staff and stakeholders.
- ☑ Internal policies and procedures formalized to guide day-to-day work and to ensure consistent approach among staff members.
- ☑ Priority setting tool implemented. This tool guides CHE in what we do, when and how we do it.
- ☑ Internationally accepted technical standards for web (and desktop) design reviewed, expanded, and adopted; implementation to be phased in over the coming year.
- ☑ Rigorous attention to quality service keeps our partners coming back!
- ☑ Staff encouraged and supported to seek opportunities where their expertise and experience can be used most effectively.



"The Centre for Health Evidence is pivotal in our efforts to promote the practice of evidence-based clinical principles at the bedside. They have provided a user-friendly internet resource, interactive educational material and personable technical assistance."

Edward J. Cullen Jr., D.O., Pediatric Critical Care,
Nemours Alfred I duPont Hospital for Children

Progress on Goal#5

CHE will respond and support the needs of its internal and external stakeholders and partners

- ☑ Purposeful meetings of like-minded folks, coming together for discussion and sharing of ideas, were initiated and nurtured.
- ☑ Participated in formal workshops both as keynote speakers and session facilitators including the PEP Workshop (*Putting Evidence into Practice*, October 2003), Edmonton.
- ☑ Prepared to go bilingual as a result of participation in a Canada wide, federally funded initiative. Both staff and technology will need to respond to the challenge in the coming year.
- ☑ Proclaimed our commitment to a broad vision of an evidence-based health system in Alberta, by working on a strategic alliance with the SEARCH Program within its new five year commitment with the governance of Alberta's nine health regions.
- ☑ Senior staff assumed lead roles in the research transfer and information management communities in Alberta.
- ☑ Our vision for information management and knowledge integration shared at many levels (local, regional, provincial, national, and international) and with multiple views (professional associations, universities, electronic publishers).

Expanded Client Services

Desktop features have been defined and clustered into multiple toolkits. The choice of toolkits and the way the tools are implemented, help a project customize their desktop in ways never before imagined.



Progress on Goal#6

CHE will work towards long term sustainability in the university sector

- ☑ Talks continued with Department of Medicine and University of Alberta about the role CHE could take in positioning UA as a leader in health informatics.
- ☑ Research Services Office and CHE continued to work together to ensure the continued success of CHE.

CHE has outstanding staff

Project Profiles

Customized online environments – called “Desktops” – are the foundation for many projects undertaken at CHE. Approaches run the spectrum from virtual classrooms (usually short term and for a specific purpose) to virtual practice networks and virtual learning communities (usually multi-year and complex in their needs). This year has seen a proliferation of projects for CHE; the following are examples of groups using desktops to improve practice.

“CHE has been responsive, knowledgeable and proactive in putting forward ideas and anticipating our needs. They demonstrate a commitment to finding the best solution for our members while leveraging strengths and acknowledging the limitations inherent in our particular project.

The CHE team has a unique capacity to make “evidence based decision making” relevant and useful to practitioners. Through their excellent grasp of adult education principles and understanding of the commonalities across professional groups and practice arenas they have contributed to the creation of valuable tools to support evidence based decision making amongst our members.”

Dietitians of Canada

Long Term Care at *The CAPITAL CARE Group*

Streamlined access to filtered information: this is a precious commodity for workers in a knowledge and service profession.

Given the complexity and high level of service required in long term care – indeed in any health service setting – *time* is one limiting factor for providers needing to identify quality information for decision making and wanting to increase their knowledge.

The Corporate Best Practice Committee of *The CAPITAL CARE Group* approached CHE in 2003 seeking a customized Desktop that

would provide consistent, easy access to high-quality knowledge resources alongside strategies to help encourage their effective use. The result is a tool that supports rapid, evidence-based decision making. When managers, best practice leaders, executives, nurses and other health professionals have quick access to first-rate information, the ongoing development and implementation of best practice resident care is facilitated. Success in Year 1 has been the impetus for broadening access to a subset of professional staff across the organization in 2004/05.

Society for Academic Emergency Medicine (SAEM) Online EBM Course

If e-Learning is the trend today, an *integrated virtual classroom* is the way of tomorrow.

CHE leads this revolution, developing and deploying virtual learning environments that are the next best thing to being there! These environments are first “class” all the way. Curriculum is presented in various multimedia formats to suit the preference (and internet connection speeds) of learners. Interactive content incorporates the learners’ responses to guide their progression. With direct links into high-quality knowledge resources, online readings, and self-guided evaluations, all the

core and supplemental information is just a click away.

The Society for Academic Emergency Medicine (SAEM) in the United States approached CHE about running a pilot online course in evidence-based medicine (EBM). The course instructors adapted existing EBM teaching resources and created new modules specific to the needs of Emergency Medicine. This composite was organized and deployed by CHE staff in an online virtual classroom. The result was a highly successful professional learning program with over 25 emergency medicine physicians enrolled.

“Excellent collaborative relationship that positions us at the frontiers of research training.”

Dr. Paul Armstrong,
TORCH (Tomorrow’s Research Cardiovascular Health Professionals)

Tomorrow's Research Cardiovascular Health Professionals (TORCH)

Beyond the virtual classroom is the *virtual learning community* – uniting online learning with human relationships to produce a unique, virtual synergy. CHE supports a number of these communities across North America.

In the case of the TORCH program (a cardiovascular research training program with trainees from the University of Alberta and the University of Calgary), the learners have the added advantage of meeting for weekly sessions via videoconference and in person at

semi-annual workshops. The program consists of healthcare professionals and select basic scientists from a variety of disciplines, united by a passion for conducting cardiovascular research. CHE supports the program’s online curriculum, virtual community, and knowledge resources.

Social networks, real or virtual, improve learning and research. When they improve cardiovascular research, all our hearts beat easier.

CHE has Outstanding Staff

Partner List

CHE partnered with a wide variety of foundations, organizations, professional associations, and universities in 2003/04 at multiple levels of engagement. Examples of strategic partnerships are noted throughout the report.

Foundations:

- Alberta Heritage Foundation for Medical Research (SEARCH Program)
- Canadian Health Services Research Foundation - CHSRF (EXTRA Program)
- Nemours Foundation (USA)

Organizations:

- Betterhealth Global
- Capital Care Group, Edmonton, Canada
- Courtyard Group (Canada)
- Elsevier Science, USA (Evidence-Based Nursing: A Guide to Clinical Practice)
- Evidence-Based Emergency Medicine Working Group - EBEM (USA)
- Long Beach Memorial Medical Centre (LBM-EBM Project), California, USA

Professional Associations

- Alberta Medical Association
- American Medical Association
- College of Family Physicians of Canada (ePearls Project)
- Dietitians of Canada
- Society for General Internal Medicine - SGIM (USA)
- Society for Academic Emergency Medicine – SAEM (USA)

Universities:

- Alberta Cardiovascular and Stroke Research Centre (ABACUS), University of Alberta, Canada
- Department of Medicine (CHEDESK Project), University of Alberta, Canada
- Division of Cardiology (TORCH Program), University of Alberta & University of Calgary, Canada



Did we tell you we have outstanding staff?

Financial Summary

The CHE demonstration project was initiated in March 1999 under the Health Infrastructure Support Program of the Canadian Office of Health and the Information Highway. By the end of 2000, the objectives of the demonstration project were fulfilled and CHE transitioned from infrastructure funding to project-based funding. In 2003/04, CHE funding sources continued to expand. We have major grants and contracts with renewed partners but this year funding has come from more diverse areas reflecting the different ways in which CHE expertise is requested.

Salary and benefits continue to be our major expense. With most of our work occurring over the Internet, technological updates, the latest software, and an evergreening policy are necessary to our survival. Our knowledgeable IT department works hard to keep these costs under control. New acquisitions are researched ahead of time to ensure a match with our needs. Innovations in hardware as well as new software programs are tested before put into production.

Accrued expenses reflect dollars obtained through our contract and service agreements that are allocated to infrastructure replacement costs. These funds will allow us to update our servers and security to meet industry standards and to purchase computers and software as needed to meet the demands of project deliverables.

CHE is grateful for the support of the University of Alberta. They provide some office space, legal advice, human relations support, and financial reporting.

