ABSTRACT

This paper proposes a paradigm shift in health care from a focus on death and disability to one on health empowerment resulting in improved cardiovascular lifestyles for all Canadians. It describes a national interprofessional initiative to achieve this new vision in the area of cardiovascular health promotion. Achieving Cardiovascular Health in Canada (ACHIC) is a partnership of health professional associations and other health advocate groups whose vision is to promote optimal cardiovascular health (including cerebrovascular health) for all Canadians through interprofessional partnership initiatives and support systems. ACHIC’s objectives are to: 1) identify system barriers and supports to cardiovascular health; 2) develop strategies that will have a positive impact on the practices of health professionals/educators in the promotion of cardiovascular health; 3) develop an interprofessional national approach to support strategies to achieve cardiovascular health in Canada; and 4) support the development and delivery of consistent, evidence-based messages by health professionals/educators for promotion of cardiovascular health.

From Death and Disability to Patient Empowerment: An Interprofessional Partnership to Achieve Cardiovascular Health in Canada

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This paper proposes a paradigm shift in health care from a focus on death and disability to one on health empowerment for all Canadians. It describes a national interprofessional initiative to achieve this new vision in the area of cardiovascular health promotion. The current fabric of health care systems in Canada and elsewhere is primarily based on a disease management model rather than a health promotion model. Yet this paradigm is clearly not effective as cardiovascular disease is the number one killer and disabler in Canada on a population basis. Conditions that contribute to disease, disability and death include hypertension, diabetes, obesity, myocardial infarction, cerebrovascular accident, hyperlipidemia, and even (it could be argued) menopause. The conditions of risk of cardiovascular (including cerebrovascular) disease are so embedded in Canadian culture, values, and lifestyles as to be endemic. As a consequence, healthy development may be compromised, expectations for and perceptions of well-being may be distorted, and health-seeking behaviours may be limited. Further, unlike infectious disease, there appears to be no natural acquired immunity or decline in incidence or prevalence on a population basis.

The cultural values placed on sedentary relaxation (e.g., passive media consumption) as a valuable use of leisure time and on “enjoyable” food do not lead to cardiovascular health-promoting activities such as physical activity, or low fat, high fiber, high vitamin diets. Social and work environments considered successful reinforce overeating, poor nutritional choices, and lack of exercise. Also, healthy child development is not optimized in households and schools, and as a result poor lifetime habits form quickly and early. These values are passed on from generation to generation.

Health services are pervaded by these values and health professionals are captured by the myths that Canadian nutrition, inactivity, and tobacco use are “normal” and that people “at risk” for cardiovascular disease or suboptimal cardiovascular function are a target group, or only part of the population. However, research shows this is not true. While people who have diabetes, hypertension, or high genetic risk for cardiovascular and cerebrovascular events are at greater than average risk, in such a cultural environment all Canadians are at risk.

Patient-oriented health care services do not incorporate health promotion values. The health professional who attempts to educate patients or to undertake behaviour change may quickly become discouraged and cynical, waiting until risk factors or ill-
ness or disability set in before initiating health promotion on an individualized basis. In addition, the messages that various health professionals and educators impart do not coincide. Patient and public education is not reinforced by others.

There is strong evidence that much cardiovascular disease is preventable through modification of behavioural, clinical and social risk factors. However, there remains a wide gap between expert recommendations and actual preventive practice. Physicians have been found to have difficulty meeting the standards recommended in major clinical practice guidelines even where they strongly believe that preventive care is important and that risk factors for cardiovascular disease can and should be reduced. For example, only about half of physicians routinely advise people who smoke to quit, and only a third of patients needing treatment for high blood cholesterol in the United States are receiving it. These examples illustrate that the gap between recommended and actual practice around cardiovascular disease in primary care settings extends beyond Canadian borders. In addition, experience suggests that consistent, evidence-based messages across multidisciplinary health professionals and across primary, secondary and tertiary care are lacking.

The ACHIC Partnership (Achieving Cardiovascular Health in Canada) asserts that guidelines relevant to cardiovascular health are too narrow as they address only one or two elements of health, are not designed for interprofessional approaches, are disease-oriented rather than health-promoting in orientation, and do not encourage “consistent messages.” Further, patients themselves may underestimate the importance of advice received, indicating a need for training of health professionals in communicating health messages effectively. For example, if smokers receive the same message from their physicians, clinic nurses, physiotherapists, dieticians and pharmacists about why and how to quit smoking, they would be much more likely to be successful in their cessation attempts. This health message might be even more successful if teachers, employers and other supportive elements of the broader community reinforced it. However, developing an interprofessional approach that would help ensure that people receive mutually supportive and complementary messages from all the health care providers with whom they come in contact has only recently been recommended in the major report of the 1998 Canadian Cardiovascular Society (CSS) Consensus Conference. This report recommended that the various Canadian specialty societies, other medical associations, and other health groups including behavioural scientists, nurses, dieticians and nutritionists and the various charitable foundations should create a partnership to foster a national strategy for preventing cardiovascular disease and improving cardiovascular health and its promotion in Canada. Coupled with the Victoria and Catalonia Declarations, the CSS Consensus report provides strong motivation for the ACHIC partnership.

The ACHIC partnership

ACHIC is a partnership of health professional associations and other health advocate groups whose vision is to promote optimal cardiovascular health (including cerebrovascular health) for all Canadians through interprofessional partnerships initiatives and support systems. See Appendix A for a list of partner organizations. The promotion of cardiovascular health includes primary, secondary and tertiary prevention of cardiovascular (including cerebrovascular) disease, and modification of risk factors.

Goals of the ACHIC partnership

- Promote interprofessional strategies to enhance the practice of health professionals and other health care providers in promoting cardiovascular health and preventing cardiovascular disease in Canada.
- Promote the system changes necessary to permit the successful implementation of these strategies to achieve optimal cardiovascular health.

Objectives of the ACHIC partnership

- Identify system barriers and supports to cardiovascular health.
- Develop strategies that will have a positive impact on the practices of health professionals and health educators in the promotion of cardiovascular health.
- Develop an interprofessional national approach that will support strategies to achieve cardiovascular health in Canada.
- Support the development and delivery of consistent, evidence-based messages by health professionals and health educators for promotion of cardiovascular health.

ACHIC emphasizes the promotion of health at the level of the health educators and health professionals educating and changing the behaviours of patients/clients that constitute modifiable risk. ACHIC is concerned that all health professionals (e.g., family doctors and specialists, pharmacists, psychologists, nurses, dieticians) and health educators give a similar message that the patient/client can and should improve his or her lifestyle.

The heart of ACHIC is the multidisciplinary education of health professionals about what to say to patients/clients, how to say it, and how to improve practice so as to achieve true lifestyle change. Behaviour change in the patient requires behaviour change in the health professional. Counselling skills are the most important, as behaviour modification is the science upon which such interventions are based. These themes are well covered by various coalitions on cardiovascular and cerebrovascular diseases and by individual member organizations of ACHIC. The ACHIC partnership extends these previous efforts and their inherent definitions.

ACHIC’s strategic framework

Achieving cardiovascular and cerebrovascular health for all Canadians is complex and requires a multifaceted approach. The partnership has developed a conceptual framework to clearly delineate ACHIC’s focus and to help guide action.

The ACHIC framework views the determinants of cardiovascular health as: 1) the health care delivery system, 2) societal determinants, and 3) individual social factors. ACHIC is focused on achieving cardiovascular health through changing the practice environment, i.e., within the health care system (see Figure 1). Although ACHIC acknowledges the importance of social determinants in contributing to cardiovascular health and well-being, its focus is on the health care...
During discussion, ACHIC partners learned roles and goals of member organizations and became aware of a gap in national strategies, i.e., discovered that no single organization or coalition of organizations was addressing clinical practice and barriers to both health promotion as well as primary, secondary and tertiary prevention as part of patient education, and behavioural modification for healthy lifestyles addressing an ensemble of cardiovascular modifiable risks. CMA staff presented a review of literature on behaviour change.11,12 Unfortunately, there are relatively few research studies on pharmacists, community nurses and social worker behaviour in this important area.

**Development of the ACHIC partnership**

**First Meeting**

The first meeting of the ACHIC partnership was held on October 23-24, 1997. Prior to the first meeting, each of the potential ACHIC partner organizations surveyed their stakeholders to obtain feedback on the barriers and supports they encounter when delivering cardiovascular health promotion or preventive care in their own practices. Survey results were presented and strategies to address barriers and strengthen supports in practice were explored. It was agreed that identifying and implementing these strategies is an ongoing process that requires the commitment and participation of all partners both within and outside the health care delivery system.

For example, in preliminary work, ACHIC determined that many family practitioners believe that they have a very important role in health promotion, are adequately trained to provide these services, and have incorporated many health promotion services into their practices. In spite of this, family practitioners report limited success in helping patients change their behaviours. Barriers to success include time available for counseling, absence of payment for lifestyle counseling, and cost to patients for medical treatments (e.g., nicotine replacements) and for access to allied health professionals who play important roles in helping patients make healthy lifestyle changes. This was typical of the experience of ACHIC member associations.

**Second Meeting**

The second meeting of the ACHIC partnership was held on April 20-21, 1998.13 Partners became aware of the inability of the clinical guidelines movement to change clinical practice, the failure of changed practice to impact patient behaviours in engaging in healthy cardiovascular activities, and the difficulties of sustaining such activities.14 Clinical Practice Guidelines appeared to be lacking in specificity partly because research is still lacking in many areas. ACHIC noted no consistent messages across guidelines. For example, dietary lifestyle changes recommended for hyperlipidemia, diabetes, and hypertension did not coincide. Further, differences occur across countries, and even regionally across Canada. Guidelines were noted to be fragmented, disease-oriented, and unidisciplinary. Therefore, it is difficult for health care professionals to determine what to do, and what to say to patients. By the end of this meeting, the ACHIC partnership had:

- solidified the ACHIC vision to promote optimal cardiovascular health for all Canadians through interprofessional partnership activities;
- identified some interprofessional system supports and barriers to optimal professional practice in cardiovascular health promotion and disease prevention;

**Third Meeting**

The third meeting was held on February 8-9, 1999. By the end of the meeting, ACHIC had planned and initiated design of effective interprofessional continuing health education strategies to influence practice patterns and to improve the cardiovascular health status of Canadians.

**Work groups**

ACHIC established the following four internal work groups, based on the strategic framework:

**Work Group for “Consistent Messages”**

- Achieve a healthy Body Mass Index (BMI);
- Exercise for a healthy cardiovascular system, i.e., a minimum of 20 minutes, three times per week, at a level appropriate to age and fitness level;
- Eat well, i.e., follow a nutritional regime that is high in fruits and vegetables, low in fat and adequate for protein and calorie intake, and that maintains hydration;
- Achieve smoking cessation;
- Achieve or maintain blood pressure control; and
- Achieve and maintain control of glycemia.

To deliver these messages, health professionals must be equipped with effective educational methods to achieve behavioural change.
Work Group for Continuing Health Education

Its goal is the development of national strategies for continuing interprofessional education for health providers and health educators regarding the “consistent messages” for behavioural change and lifestyle enhancement for cardiovascular health. This group developed a questionnaire and canvassed members of the Association of Canadian Medical Colleges (ACMC), the Association of Canadian Teaching Hospitals (ACTH), and the Canadian Association for Medical Education (CAME) at national meetings. The Standing Committee for CME of the Association of Canadian Medical Colleges (ACMC) was surveyed by the continuing professional education group.

ACHIC decided that education of patients, health professionals and educators was required to realize ACHIC’s vision of a wide range of cardiovascular health promotion interventions in practice, particularly regarding healthy lifestyles. Therefore an expert in medical education (second author) was invited to the third ACHIC meeting to moderate, to help integrate an educational approach into practice, and to help partners reflect on the nature of interprofessional education and professional development as well as research in these areas.

This group identified a lack of national structure for continuing health professional education across specialties and professions. In many professions, professional development seems to be confined to the particular organization that employs the professional; for example, most professional development and continuing education in nursing is achieved through “in-service” education. A Canadian network for continuing medical education (CME) is well developed through specialty societies and through university-based CME programmes. However, these programmes tend to focus only on the physician, and are rarely multidisciplinary in scope. Further, most education for professionals about patient education does not include systematic development of behaviour modification skills, necessary to help patients and clients implement healthy lifestyles. This situation makes short-term success of a national multidisciplinary forum focused on cardiovascular health unlikely. Further work is required.

Work Group for Barriers and Supports

Its goal is the development of strategies to diminish barriers and promote supports to patient education and optimization of professional practice at provincial and national levels. This group called for more grassroots provider input. Though physicians generally acknowledge the importance of preventive care, surveys and analyses consistently cite a number of barriers to its optimal practice. The most important barriers for physicians are:

1. doubts about the effectiveness of health promotion and preventive care in practice;
2. frustration with poor patient compliance;
3. belief that preventive health care and health promotion are not part of the physician’s role;
4. lack of adequate time for patient counselling;
5. conflicting guideline recommendations, e.g., in cholesterol testing and treatment;
6. poor reimbursement for preventive care services and/or management structures that assign a low priority to preventive care;
7. office set-ups that do not facilitate health promotion and prevention, e.g., chart systems, computerized patient profiles, quick reference guides.

The CMA staff secretariat developed a remuneration questionnaire to assist in identification of barriers to patient education.15 These were designed to identify current information about reimbursement of services in the area of health promotion and prevention of cardiovascular disease. Responses were received from national professional associations representing physicians, nurses, dietitians, psychologists, physiotherapists, and others. Physician responses indicated that four Canadian provinces currently have a restricted health promotion/prevention procedure (billable codes) under their health plans. Five provinces with no billable codes in this area allow the provision of prevention counselling, which can be billed under other procedures. Three provinces have a specific procedure for smoking cessation. Where non-physician health professionals (nurse educators, dietitians, psychologists, and pharmacists) are available to provide patient education on an individual referral basis, their services are either not covered, or are covered only where the patient meets service “eligibility criteria” usually pertaining to disease – in which case only prevention (not promotion), and only secondary and tertiary (not primary) prevention, can be addressed.

Lobby Work Group

Its goal is to make national and provincial government aware of the ACHIC message and its importance to all Canadians, to carry the work forward until the next meeting. Between meetings two and three, the groups worked actively on several initiatives. This group ensured that a portion of the third ACHIC meeting was devoted to ACHIC members attending the launch of the Healthy Heart Kit and lending support to the federal Health Minister’s endorsement.

As the Canadian government had designated the week of February 8-12, 1999 as Healthy Heart Week, letters of support on behalf of ACHIC were sent to the CCS and the Heart and Stroke Foundation of Canada for a “Heart on the Hill” lobby event and launch of the Healthy Heart Kit on February 8, 1999. Members of the ACHIC partnership attended the launch.

Other ACHIC activities

Available Practice Tools

ACHIC reviewed the available practice tools that might be adapted for use in multidisciplinary education and practice. ACHIC conducted a review of 63 available practice tools that might assist health professionals to educate patients regarding cardiovascular health. Sources included tools or programs previously identified by partners, informal literature review, and Internet.16 A tool or program was deemed suitable for use only if it met the following criteria: 1) it addressed at least two of the six priority factors; 2) it was developed or reviewed/revised in the last five years; 3) it was developed for use by health care practitioners, i.e., not solely public or patient education; and 4) it was publicly available...
or at least easily accessible. The review concluded that of the 62 tools reviewed, only 3 were relatively comprehensive, available, accessible and current. These are: 1) the Healthy Heart Kit,17,18 2) the update of the Framingham Risk Prediction Scores, including the National Cholesterol Education Program and the Fifth Joint National Committee on Hypertension, cardiovascular disease, and stroke,19-22 and 3) the Heart and Healthy Lifestyles.23 Of these three, the Healthy Heart Kit was found to be the most comprehensive, and appeared to best lend itself to continuing education. The kit could be adapted for multidisciplinary professional development to make it most useful for all ACHIC partners. ACHIC endorsed the Healthy Heart Kit and encouraged its use for interprofessional education strategies and skills in behaviour modification for healthy patient lifestyles.

ACHIC resolved that further study was required to determine how continuing professional development, and continuing professional education theory, structure, and research could be incorporated into ACHIC strategies, and what structures are required to allow interprofessional continuing education to go forward.

Review of Literature on Continuing Medical Education and Interprofessional Collaboration/Education

The medical education consultant (second author) provided educational sessions to increase ACHIC’s perspectives on national educational strategies to achieve ACHIC goals. Since, as a result of its survey, ACHIC partnership recognized continuing interprofessional health education as an important strategy needed to meet its objectives, a review of the literature was undertaken to extract the key messages that would be useful in moving forward in the future. There are thousands of articles that describe CME research, but only a few satisfy rigorous randomized controlled trial criteria.24,25 Interventions widely accepted as a form of CME include: 1) educational materials, 2) conferences, 3) outreach visits (academic detailing), 4) local opinion leaders, 5) patient-mediated interventions, 6) audit and feedback, 7) reminders, 8) marketing, 9) multifaceted interventions (i.e., more than one intervention) and 10) local consensus processes. Self-directed learning is thought by some to be a gold standard for CME method and motivation, although few studies have examined its effectiveness. These studies demonstrate that physician behaviour may be changed by CME and that health care outcomes can be affected, but that these changes are most often small. Multifaceted interventions are the most effective. Most impressive results from individual interventions are from outreach visits, patient-mediated methods (i.e., educational materials/reminders), and physician reminders. Examples of effective interventions have been reported in the literature.26,27 It could be argued that similar trends likely exist in other health disciplines, although few research studies have been reported in the literature.

In the field of interprofessional educational research, nearly all scientific reports are descriptive and focus on the team process, rather than on outcomes of care.28,29 Very few studies have been reported on interprofessional educational interventions, and no studies have been located that examine practitioner behaviour change or patient outcomes as a result of interprofessional education. Much of the writing that describes collaborative learning is anecdotal and based on opinion; the benefits are often argued rather than demonstrated. The purported benefits of collaborative practice included access by care recipients to more comprehensive expertise, better coordination of care and greater continuity. However, there are some important barriers to interprofessional collaboration and education, and these need to be addressed.30-32 These include: 1) differences in language and jargon; 2) differences in schedules and professional routines; 3) differences in requirements, regulation, and norms of professional education; 4) differences in accountability, payment, and rewards. Various strategies exist for addressing barriers to collaborative practice, including: providing leadership, developing interprofessional forums for continuing professional development, providing organizational support, addressing time and compensation issues, providing education, and developing good group dynamics.

Gaps in continuing educational structures were identified that would have to be overcome to realize ACHIC’s vision. In particular, continuing education still is largely conducted using didactic teaching methods in sessions comprising health professionals from a single discipline, e.g., pharmacists, nurses, physicians. The ACHIC vision would benefit from a multidisciplinary CME approach.

DISCUSSION

ACHIC has identified and acted on many challenges (see Table I). The literature provides suggestions for enhancing the practice of health professionals and educators regarding promotion of cardiovascular health and prevention of cardiovascular disease. Notable among these are:

- enhanced continuing interprofessional development and education for health care providers and health educators, with
TABLE I
ACHIC Challenges

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<th>Challenge</th>
<th>Examples of Activities of ACHIC Partners</th>
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| To learn from the experiences and insights of established health providers focusing on primary prevention at the community level, e.g., physicians, nurses, pharmacists, dietitians | - Reviewed literature on physician behaviour  
- Obtained provider input  
- Surveyed Alberta physicians  
- Surveyed Dietitians of Canada  
- Surveyed professional associations re remuneration policies |
| To educate the health professionals as patient-educators | - Reviewed available practice tools  
- Surveyed Canadian education networks  
- Consulted specialists in interprofessional education  
- Planned interventions using Healthy Heart Kit  
- Reviewed literature on interprofessional collaboration and education |
| To research what messages exist, identify gaps, and disseminate appropriate messages that exist | - Reviewed clinical practice guidelines  
- Endorsed Healthy Heart Checklist  
- Endorsed Healthy Heart Kit  
- Supported ‘Heart on the Hill’ Day |
| To raise awareness of, and advocate for, improved cardiovascular health among the public, practitioners, and funding agencies | a greater focus on counselling for health promotion, and enhancement of patient-professional communication;  
• focused guideline implementation programs, encompassing CME sessions, videos, grand rounds, and monitoring and follow-up of individual health care providers;  
• office systems that support preventive care, including “user-friendly” patient profiles and monitoring systems; and  
• an expanded role for health professionals other than physicians in screening and counselling with funds allocated appropriately to support these activities. Other practice setting interventions have shown positive results, e.g., administrative systems and policies, patient population interventions, remuneration policy interventions. There is a need for more coherent research that builds on previous work and a focused effort to understand the many variables involved. Appropriate continuing interprofessional education for health professionals is likely to be an essential component of any intervention strategy for this complex task, and implementation should be accompanied by evaluative research.

ACHIC is working to galvanize other groups to tackle areas of activity that should be addressed. Interprofessional health promotion in practice is an important approach, improving function and well-being of Canadians, and is currently missing on the Canadian scene. There is a need for a national interprofessional continuing health education initiative to accomplish this, which must be accompanied by the measurement of its impact on the behaviour of health professionals and educators, and subsequently, on patient/client outcomes. The ACHIC partnership has the potential to address this challenge, to make a significant difference in the health of Canadians, and to serve as a model for other countries.

In order to promote the “added value” of the message of the ACHIC national strategy, ACHIC will increase its visibility in the health community and public arena. Since the third meeting, ACHIC has increased its representation at the Canadian Coalition for High Blood Pressure Prevention and Control, is participating in the development of the Canadian Heart and Stroke Surveillance System, and is writing a grant to study the impact of multidisciplinary professional education on cardiovascular health. Finally, ACHIC is collaborating with the Standing Committee for CME of the ACMC to explore collaboration in developing a multidisciplinary education network. Finally, two manuscripts have been prepared for publication, with the current one describing the ACHIC philosophy and its application.

ACHIC has provided expertise to the Canadian Heart and Stroke Surveillance System Network in Ottawa, and developed a research strategy to study the impact of interprofessional continuing professional education on the practices of health care teams and individual health providers and educators. More importantly, the ACHIC partnership will need to form alliances with other organizations to develop funding proposals for provider education and other initiatives that incorporate the principles discussed in this paper.

ACHIC calls for the following actions to be undertaken:
• National forum for continuing education in the health professions that goes beyond CME in that it is interprofessional, includes a broader scope on health promotion in practice, and leads to true professional development.
• Action by government insurers, other third party payers, health professionals and health educators to reduce barriers and to support patient/client education, counselling and behaviour modification within practice such that health-promoting lifestyles are implemented and maintained.
• Greater interprofessional collaboration to ensure implementation of guidelines among a wider range of health professionals and health educators to serve a greater proportion of patients and clients.
• Greater interprofessional collaboration in supporting and reinforcing “consistent messages” for the Canadian public at large as well as for patients/clients.

How can this be achieved? ACHIC believes that interprofessional education is the key. ACHIC partners are aware of a body of educational expertise and wish to better understand the experience of continuing education in medicine and the other health professions. ACHIC wishes to apply the best practices of education and research to realize its goals and to influence others in realizing the vision of ensuring cardiovascular health and patient empowerment for all Canadians.
that the process was completed by way of corresponding with all parties concerned.

REFERENCES


