

**Complementary and Alternative Medicine (CAM)  
in  
Undergraduate Medicine Education (UME)**

**Program Scans  
and  
Associate Deans UME Opinions**

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May 31, 2002

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## EXECUTIVE SUMMARY OF RESULTS

### **Background:**

During the Fall of 2001 Health Canada approached the University of Calgary to assess its interest in a curriculum-related initiative to facilitate understanding of the role of Complementary and Alternative Medicine (CAM) in Undergraduate Medical Education (UME). A contract for such a project was signed in December 2001.

### **Project Objectives:**

The objectives of this project were to:

- Develop goals and objectives with respect to knowledge, skills and attitudes regarding CAM for graduating medical students
- Identify whether there is agreement, internally and externally, about reasonable content of CAM education in UME
- Identify the most suitable learning methods for CAM education
- Plan a session at the Annual ACMC meeting at which the findings will be presented and discussed, and
- Provide recommendations for future directions.

### **Project activities:**

#### Program Scan

At the September 2001 meeting of the UME Associate Deans of Western Canadian Medical Schools, the deans at the Universities of Calgary, Saskatchewan and Manitoba agreed to take part in a program scan to assess

1. current CAM content in each course
2. preferred teaching methods, and
3. opinions about knowledge, skills and attitudes required for graduating medical students

Questionnaires were sent to course chairs, class representatives (Calgary only) and medical students. Course chairs and clerkship directors (response rates 73% to 33%) responses indicated the following:

1. Almost all agreed that some coverage of CAM is important in UME.
2. Some element of CAM is covered in 41%, 46% and 23% respectively of the courses represented by the program scan.
3. Efficacy/safety, extent and reasons for use, ethical and cultural aspects of CAM are most often covered.
4. Herbal medicine is the modality most often covered across the three schools.
5. The majority of respondents (except in Manitoba) felt that CAM teaching should be integrated within the regular curriculum.
6. A range of teaching methods (traditional and progressive) was recommended for CAM teaching.
7. Respondents agreed that graduating medical students should possess basic knowledge (approaches patients are using, reasons for use, CAM evidence, information sources and professions that are regulated) and skills (ability to communicate about CAM, access evidence, include CAM in history taking, and

identify risks) and that students should be willing to communicate with patients about CAM. There was less agreement about other attitudes (willing to monitor patients using CAM, to communicate with and to refer patients to CAM practitioners)

Student class representatives in Calgary agreed with course chairs and clerkship directors in most, but not all, cases about current CAM content in the courses. Medical students' opinions about the knowledge, skills and attitudes that they should graduate with were very similar to those expressed by course chairs.

### Interviews with Associate Deans

The program scan was used to develop an interview guide for personal interviews with the UME Associate Deans of all Canadian medical schools. Ten out of 16 deans contacted were interviewed and four completed a written questionnaire. The results show that:

1. Topics to be covered in UME include understanding the philosophical, historical, and anthropological perspective on CAM, reasons for CAM use, safety and efficacy issues and communication about CAM. CAM modality selection to be discussed should be dictated by patient use, provider regulation and what is logistically possible.
2. The Associate Deans were divided with regard to how CAM can be brought into the curriculum. Some preferred stand alone courses; others suggested integration in existing courses or a mixed format.
3. Few medical schools are addressing CAM related issues in a formalized way. Some are looking for an increase in CAM teaching; others are not and are concerned about the numerous other subject areas that are also competing for time and attention in the curriculum.
4. The most frequently cited topics of importance included: developing goals and objectives regarding knowledge, skills and attitudes for graduating medical students, identifying suitable teaching methods and developing recommendations for future directions.

### Associate Deans' workshop

During a three hour workshop Associate Deans identified and agreed upon a list knowledge, skills and attitudes that graduating medical students should have. These were similar to those identified in the interviews.

All recommendations that resulted from the workshop are linked to a primary recommendation that common and realistic educational objectives with respect to CAM need to be defined and refined. The other recommendations include:

1. Assess what is currently being taught in medical schools across Canada, including identification of champions or leaders in this area.
2. Explore financial, administrative, and other kinds of support for people to champion or implement CAM in UME.
3. Develop web-based resources that focus on CAM knowledge, skills, and attitudes that are already available or are being developed within each of the 16 Canadian medical schools.

4. Develop faculty knowledge, skills and attitudes about CAM and create an educational culture that diminishes negative opinions about CAM

Several issues were raised during the workshop with no definitive resolutions reached.

1. What is the rationale for discussing CAM rather than other important areas that are currently not brought to the forefront?
2. How can CAM education be continued in clinical training?
3. Outcomes measures in conventional medicine and CAM may differ based on different beliefs systems. In this regard, how do we teach physicians to recognize their own belief systems when evaluating the nature of evidence?
4. Do graduates need to know the legalities of referral to CAM practitioners and their responsibilities in this regard?
5. Medical educators should convey a culture of respect for CAM practitioners, but what should this entail?

## I INTRODUCTION

Since early 2000 Health Canada (HC) has been working with the Association of Canadian Medical Colleges (ACMC) on a curriculum-related initiative to facilitate the physician role in understanding and dealing with complementary and alternative medicine (CAM) with a focus on undergraduate medical education (UME). This resulted in a one-day session “What our future doctors need to know about Complementary and Alternative Medicine” presented at the Annual ACMC/ACAHO/CAME meeting in May 2001. As a next step, HC approached the University of Calgary to assess its interest in further developing this area.

The importance of CAM in undergraduate medical education is underscored by several significant trends including:

- Patient and public interest in complementary and alternative health care and in self care approaches coincides with trends in health care to increase focus on health promotion and disease prevention
- Changing nature of health care and service delivery
- Consumerism impact; taking responsibility for one’s own health and related decision-making
- Desire of medical students to be knowledgeable about CAM
- Informed choice issues; importance of physician/patient communication
- Increase in chronic diseases and need for approaches to manage such diseases

In order to conduct this study it was critical that both the ACMC and Health Canada accept the premise of the proposal. The ACMC was important to facilitate linkages to Canadian medical schools and Health Canada’s attention to policy aspects of complementary and alternative health care further supported the necessity to explore complementary and alternative medicine in an educational context.

Discussions with HC resulted in a proposal for a six-month contract (December 1, 2001 to May 31<sup>st</sup>, 2002) to examine the role of CAM in UME. The overall objectives of this contract were to:

- Develop goals and objectives with respect to knowledge, skills and attitudes regarding CAM for graduating medical students
- Identify whether there is agreement, internally and externally, about reasonable content of CAM education in UME
- Identify the most suitable learning methods for CAM education
- Plan a session of the Annual ACMC meeting at which our findings, based on Phase I (December 31, 2001-May, 2002) will be presented and discussed, and
- Provide recommendations for future directions.

The information collected during this period, in addition to the outcomes of the ACMC meeting on April 27, 2002, will inform the activities to be conducted in a second study phase.

The contract activities during Phase I as presented in this report include:

1. Establish an External and Internal Advisory Committees.
2. Conduct an internal scan at the Universities of Calgary, Saskatchewan, and Manitoba to assess opinions about knowledge, skills and attitudes required for graduating medical students, current CAM content in each course and preferred teaching methods.
3. Conduct personal interviews with the Associate Deans of all Canadian medical schools in order to begin developing goals, objectives, and learning methods for a national approach to CAM in UME.
4. Host a half-day Associate Deans workshop during the Annual ACMC meeting to discuss and agree upon elements of CAM education appropriate for an UME programs.

## **II ADVISORY GROUPS AND CONSULTATION**

### **2.1 Consultation with the Associate Deans of Western Canadian Medical Schools**

At the meeting of UME Associate Deans of Western Canadian Medical Schools on September 28, 2001, the proposal to examine the role of Complementary and Alternative Medicine (CAM) in Undergraduate Medical Education (UME) was discussed with Drs. Casiro (Manitoba), Card (Saskatchewan), Cheeseman (Alberta), and Schreiber (UBC). The proposal was generally supported and Drs. Card and Casiro also agreed to conduct an internal scan at their schools.

### **2.2 Internal Advisory Committee - University of Calgary**

On October 3, 2001, eight faculty members from the University of Calgary formed a committee to develop an internal scan of course chairs. The purpose of the scan was to establish the extent to which CAM is currently included in UME courses and to assess course chair's opinions about the knowledge, skills, and attitudes that graduating medical students should have. At a second meeting on November 29<sup>th</sup>, 2001, the draft questionnaire was reviewed and accepted. It was agreed that Section III of the questionnaire on required knowledge, skills, and attitudes should also be distributed to medical students.

### **2.3 National Consultation with UME Associate Deans**

An e-mail questionnaire was sent to all Canadian UME Associate Deans (n=17) on November 21, 2001 to assess their interest in (1) participating and collaborating in this initiative, and (2) attending a half-day workshop during the ACMC meeting and/or a one to two hour session separate from the 1 ½ days set aside for the Associate Deans meeting. Of the 15 Associate Deans who responded to the questionnaire, 14 indicated an interest in participating or collaborating in this initiative. Results were closely split between wanting a half-day workshop and wanting a one to two hour session during the general meeting. Due to the timing of receiving the responses, the printing of the ACMC program, and the finalizing of the Health Canada contract, it was decided to offer a half-

day workshop for Associate Deans on April 27<sup>th</sup>, 2002. Dr. Heather Boon agreed to facilitate this workshop.

### III PROGRAM SCAN

The objective of the program scan was three-fold:

1. to assess current CAM content in each course
2. to establish preferred teaching methods
3. to examine opinions about knowledge, skills and attitudes required for graduating medical students

#### 3.1 Response Rate

Course chairs and clerkship directors at the Universities of Calgary, Saskatchewan, and Manitoba were either hand-delivered, couriered, or e-mailed a three-page questionnaire (see Appendix A). Table 1 presents the response rates from the three universities, ranging between 33 and 73 percent. Of the 24 people who responded to the survey at the University of Calgary, their responses represented 22 of 29 courses in the three-year curriculum. Class representatives for each course at the University of Calgary also were given the survey. Forty-one of the 69 representatives from first, second, and third year responded (59 percent response rate). In addition, all the medical students at each institution received the checklist on knowledge, skills, and attitudes of graduating medical students. The response rates from medical students ranged from seven percent to 100 percent and are presented in Table 2.

#### 3.2 Scan Results

##### 3.2.1 *Course Chairs, Clerkship Directors, Unit Managers (and equivalents)*

Responses were relatively consistent across the three universities regarding the inclusion of CAM in undergraduate medical education courses (see Table 3). Although it appears that more courses at the University of Calgary and the University of Saskatchewan discuss some element of CAM, cautious interpretation of the results is warranted because:

1. this program scan does not focus on formal CAM course content, but rather on any course material or lectures that touch on complementary and alternative medicine.
2. the results from each institution are based only on the responses of the instructors who returned the survey.
3. the University of Manitoba has a stand-alone course lecture-based CAM course that is integrated in their longitudinal Medical Humanities Program (see Appendix B). Therefore CAM content that taught in this one course may be integrated into more than one course at the Universities of Calgary and Saskatchewan.

There is a range of CAM topics covered in the courses, with efficacy and safety, extent and reasons for use, ethical aspects of CAM, and cultural aspects of CAM most

commonly cited. Although the range of modalities covered across courses appears greater at the University of Calgary, herbal medicine seems to be most frequently covered in the three medical schools.

It is evident from Table 4 that amongst those responding there is overwhelming agreement at the Universities of Calgary and Saskatchewan that some teaching of CAM is important in the undergraduate medical curriculum. Although agreement is still high, this is less the case at the University of Manitoba; a somewhat surprising finding given that they are the one university in the sample that has a required course in complementary and alternative medicine. The majority of respondents at the Universities of Calgary and Manitoba felt that CAM teaching should be integrated within regular courses, but most respondents at the University of Saskatchewan felt that CAM teaching should be a stand-alone course.

Approximately half the respondents at the universities of Calgary and Saskatchewan felt that only physicians should teach CAM (see Table 4). In contrast, only five percent of respondents at the University of Manitoba selected the “only physicians” option. Educators at this institution seemed to prefer that either CAM providers be included as teachers or that physicians and CAM providers both teach complementary and alternative medicine content. This fits with their course description in which CAM practitioners are brought in as guests.

There was a range of preferred teaching methods that included both traditional and progressive approaches (see Table 5). Respondents in all institutions favored critical appraisal as well as case studies. Lectures was underscored by a many respondents at the Universities of Calgary and Manitoba, and small groups also was selected by over half of the course chairs and clerkship directors at the University of Calgary. Respondents at the Universities of Saskatchewan and Manitoba chose on average two teaching methods, while those at the University of Calgary chose three.

Response trends regarding the knowledge, skills, and attitudes required for graduating medical students were similar across universities (see Table 6). Although there was a high level of agreement and high endorsement that students should possess the knowledge and skill areas listed, there was greater response variability in the Attitudes section. There was high agreement, but low endorsement within all universities that graduating doctors should be willing to refer patients to licensed CAM providers. At the same time, respondents from the Universities of Calgary and Manitoba were more likely to agree that graduating medical students should be willing to communicate with CAM practitioners in comparison to respondents from the University of Saskatchewan. However, course chairs at the University of Calgary were much more likely than all others to feel that graduating MDs should be willing to monitor patients who use CAM.

### *3.2.2 Class Representatives*

Each year, medical students at the University of Calgary are elected to represent their classmate’s concerns regarding the content and delivery of a course to the course

instructors. The class representatives meet with course chairs and are invited to attend curriculum committee meetings. Class representatives were included in the program scan to validate course chairs responses. Opinions from both the course chair/clerkship director and at least one student representative were captured in the scan for half of the courses in the curriculum (15/29). In 11 of these 15 courses there was agreement between the teachers and the students on whether or not CAM content was included; eight agreed that there was no element of CAM and three agreed that there was CAM discussed in the course (see Table 7). In the remaining four courses, there was no consensus between the two groups regarding CAM content. Clearly it is difficult to identify when CAM is included in the curriculum and when it is not. Whether this is because of varying definitions of CAM, the informal nature of CAM teaching, shortcomings of the survey, or inaccurate respondent recall cannot be addressed in this study.

Class representatives and course chairs shared similar opinions regarding the knowledge, skills, and attitudes that graduating medical students should have, but differed in their suggestions for teaching methods. In addition to critical appraisal and lectures, class representatives were more likely to prefer invited guests and seminars as teaching methods than were course chairs. Furthermore, a greater percentage of class representatives thought CAM providers should be included as teachers than did course chairs (58% versus 13% respectively).

### *3.2.3 Medical Students*

All medical students at each institution received Section III of the questionnaire that examined opinions on the knowledge, skills, and attitudes graduating doctors should have about CAM. Overall, results are similar to the course chairs; there are high levels of agreement on knowledge items, somewhat less, but still relatively high agreement within the Skills set, and the lowest levels of agreement on selected items in the Attitudes section (see Table 8). Also like the course chairs, most medical students believe that some CAM teaching is important in the undergraduate curriculum (95% at the University of Calgary, 96% at the University of Saskatchewan, and 98% at the University of Manitoba).

## **IV ASSOCIATE DEAN INTERVIEWS**

The program scan was used to develop an interview guide (see Appendix C) to conduct personal interviews with the Associate Deans of all Canadian medical schools in April. The objective of the Associate Deans' interview was to begin developing goals, objectives, and learning methods for a national approach to CAM in UME. Drs. Allan Jones and Heather Boon reviewed and approved the interview guide. E-mail letters were sent to the Associate Deans of Undergraduate Medical Education informing them that they will be contacted to schedule a 30-minute interview date. Of the 16 Associate Deans

contacted<sup>1</sup>, 10 were interviewed by telephone and four completed the written questionnaire for a response rate of 88 percent. Of the two Associate Deans not included in the sample, one could not arrange a mutually convenient time with the interviewer, and the other did not respond to any of the interview requests.<sup>2</sup>

Analysis of the interviews revealed several themes. Complementary and Alternative Medicine topics that should be covered in Undergraduate Medical Education included:

- an understanding of CAM that incorporates a philosophical, historical, and anthropological perspective
- an understanding of why patients use CAM
- patient-physician communication about CAM including history-taking
- safety and efficacy issues

Although there was consensus that certain modalities should be addressed in UME, respondents felt that the depth of learning should only go as far as having an awareness of different modalities. Modality selection should be dictated by:

- what patients use
- whether the CAM profession is regulated, and perhaps most importantly
- what can logistically be introduced and integrated into the curriculum.

For the most part, the Associate Deans were split into two camps with regard to how CAM can be brought into the curriculum. Some expressed that because of a crowded curriculum, a one-day workshop, panel, or forum with practitioners representing different practices was appropriate, sufficient, and perhaps more stimulating than other teaching methods. Others thought the best approach was to introduce CAM material into existing courses. For example, in a block design curriculum based on body systems, chiropractic could be discussed in the Musculoskeletal System, acupuncture in the Nervous System, and yoga and meditation in the Mind. At the same time, there were a few Associate Deans who mentioned having a mixed model that would begin with a stand-alone, lecture style introduction to CAM followed by integration of material throughout the curriculum. This is analogous to the University of Manitoba's current system.

Most schools are addressing some issues related to CAM, but few in any formalized way and few are faculty driven initiatives. Many Associate Deans commented that the medical students are leading the faculty with regard to organizing opportunities to learn about complementary and alternative medicine. Some schools are most definitely looking to increase CAM content in the curriculum, but are faced with logistical problems such as what to teach, who should teach, and where should it be added to the curriculum. On the other hand, there were a few schools that did not see the need for any curriculum change (i.e., either were satisfied with the amount of CAM content or did not see the need for CAM inclusion), or expressed a concern about symmetry in nationally discussed curriculum issues (i.e., need a rationale for why CAM has been brought to the

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<sup>1</sup> At the time of the interview, it was not realized that the University of Ottawa had two UME Associate Deans. As a result, one of the Associate Deans was not interviewed in April, but was given the opportunity subsequent to the APMC meeting to be interviewed.

<sup>2</sup> This Associate Dean was replaced April and the new administrator was appointed on April 21, 2002.

forefront and not other areas of importance). Nevertheless, these Associate Deans did indicate that they were open to discussions about future directions for CAM in UME.

The most frequently cited topics of importance for the workshop included: developing goals and objectives regarding knowledge, skills, and attitudes, identifying suitable teaching methods, and developing recommendations for future directions.

## **V ACMC ANNUAL MEETING – ASSOCIATE DEANS CAM IN UME WORKSHOP, APRIL 27, 2002**

The Associate Dean interviews, along with the program scan, provided a solid foundation from which to build a relevant workshop. The workshop was attended by 14 of the 17 Associate Deans. Also attending was the director for the CAM course at the University of Manitoba and the curriculum chair at University of Toronto. After a brief introduction from each participant with respect to the current situation at their school, Dr. Boon facilitated the group through a discussion about the knowledge, skills, and attitudes that every graduating medical student should have. A summary of the workshop is presented in Appendix D.

Discussion first focused on the knowledge areas that graduating medical students should have including defining CAM, knowing where there is evidence of benefit or harm, and common uses of CAM. Participants made it clear that students cannot be expected to know everything. They felt that it is more important that students be aware of, and know where to find, information about CAM issues such as safety and efficacy. There was recognition that methods to evaluate evidence, particularly in a biomedical model, may not be appropriate for CAM and may influence perceptions of CAM. This led to the suggestion that meaning and evaluation of CAM evidence should be understood in a philosophical, historical, and anthropological context.

There was consensus that medical students should be able to incorporate CAM in history taking and to talk to patients about CAM; areas that were repeatedly noted during the Associate Deans' interviews. The suggestion by one participant that students should learn how to find qualified practitioners opened the floor to concerns surrounding the legalities of referral. Questions such as "Is this an area undergraduates need to know?" and "What are physicians' roles and responsibilities regarding referral?" were discussed but remained unresolved at the end of the workshop.

There was unanimous agreement that graduating students should be willing to talk to patients who use CAM and relative agreement that students should convey an attitude that is respectful and non-judgmental of patients who use CAM. Nevertheless, whether students should have a professional respect for CAM practitioners and what this implies was an area of contention. Moreover, discussion in this area raised a concern that the line between presenting a topic and endorsing a topic is sometimes nebulous.

Participants were divided into two groups during the workshop to discuss how to incorporate the knowledge, skills, and attitudes that medical students should have upon

graduation. Synthesis of these deliberations created five recommendations (see Appendix D). It was felt that to move forward, common and realistic educational objectives with respect to CAM should be established, champions or leaders in CAM teaching in each medical school should be identified, financial, administrative, and other support to implement CAM in UME should be explored, and web-based resources that focus on CAM knowledge, skills, and attitudes should be created. Faculty development was another recommendation that was considered important, yet it is an area beset with obstacles. For example, few faculty members attend professional development workshops. In a similar vein, it was noted that the CAM education received in the first and second program years is difficult to continue during the clinical and post-graduate years.

## **VI ASSOCIATE DEANS' OBJECTIVES SURVEY**

Workshop notes were summarized and e-mailed to the Associate Deans on May 9, 2002 for comments and suggestions. Along with the summary, the Associate Deans were asked to complete and return an "objectives survey" as a means of validating what was established during the workshop. The response rate of 24 percent is too low to draw any definitive conclusions. Nevertheless, of the four Associate Deans who completed the survey, all felt that it was most important that graduating medical students should know definitions of CAM, be aware that some CAMs have interactions with conventional medicine, and know common uses of CAM. There also was consensus that it was most important to teach all the skills and attitudes (except being willing to talk to patients who use CAM) listed in the objectives survey. Although the four respondents differentially prioritized the workshop recommendations, defining common and realistic education objectives was ranked highest overall while faculty development was ranked least important.

## **VII DISCUSSION**

Complementary and Alternative medicine (CAM) is one of the many issues competing for placement on the agenda of the Undergraduate Medical Education curriculum. While few stakeholders we have approached deny the importance of discussing issues around CAM, there is concern about setting aside precious time for CAM. Some caution is needed as:

1. not all stakeholders we approached responded to the request for information
2. despite perceived importance, current coverage of CAM in UME is limited
3. interest among Associate Deans is present but limited, and
4. CAM champions are lacking at most Canadian Schools.

Clearly, there is no nation wide groundswell to promote CAM teaching. In many ways the scan results confirmed the findings of the Medical Educator survey sponsored by Health Canada in 2001. (Verhoef, M.J., Best, A., & Boon, H. Role of complementary medicine in medical education: opinions of medical educators. *Annals RCPSC* 2002; 35: 166-170)

The scans and the interviews have generated key information about CAM topics that are generally considered to be important and worthy of inclusion in the curriculum. Graduating medical students should understand what CAM is, know the extent and reasons for use, have some knowledge (or know where to find information) of efficacy and safety of CAM, be aware of sources of information and know which CAM professions are regulated. Skills include being able to communicate with patients using CAM, being able to access CAM information sources, being able to include CAM use in history taking and being able to identify risks of CAM use. Respondents agreed that a willingness to communicate with patients about CAM and being respectful and non-judgmental to patients who use CAM were important attitudes. There is clearly no desire to train students in any specific CAM modalities and great caution was expressed with respect to appearing to condone or even promote CAM.

Appropriate teaching methods cover a wide range of options. Similarly, there was disagreement on whether teaching should be stand alone, integrated or a mix of both. Perhaps CAM teaching should be individualized and developed such that it fits within the local UME curriculum.

This field could benefit from further work by refining curriculum objectives and identifying more specifically what they involve. It is likely that several aspects can be fit easily into current UME programs. However, further development requires a local champion who is willing to navigate the system and to assist with curriculum development. In addition, course materials are needed (cases, standardized patient roles, videos, lectures, useful websites, etc.) that serve as a common resource bank. Such resources should be shared and need to be adjusted/updated regularly.

In many ways CAM is not new. The evolution of the biopsychosocial model, the increase in attention to disease prevention and health promotion and consequently to life style issues, the development of patient centred care and the increased attention to psychosocial issues such as violence, abuse and addictions, all appear to have several elements in common with CAM. These elements include a focus on well being rather than disease, consideration of multiple determinants of health, and the importance of patient empowerment. Therefore, it is essential that such trends and changes be considered in a broader perspective that includes CAM.

## **VIII FUTURE DIRECTIONS**

The support for examining the role of complementary and alternative medicine in Undergraduate Medical Education programs was extensive and encouraging. However, continued cooperation from the UME Associate Deans as contact persons for information is waning due to the multiple demands they face. Consequently, this group should not be expected to continue active involvement in future phases of this project.

The overall results and recommendations from Phase I of the initiative suggest the development of more refined objectives and goals regarding CAM and a closer examination of CAM content that is currently, formally and informally, included in medical school curriculums across Canada. A major need was identified with respect to

the compilation, organization and development of course materials. This potentially includes a wide variety of tools such as cases or standardized patient roles, videos, self-learning modules, self-assessment quizzes, etc. However, such an assessment would require the identification of an interested faculty member (i.e., a CAM champion) at each institution to become part of a national working group that could propose course goals and objectives and compile and assess specific course information. We will explore potential support over the coming month and will inform Health Canada by June 30, 2002 of our intent to continue with the project. If support is positive, we will submit a proposal by June 30, 2002.

Independent of future work, we are planning to submit the results from the program scan, the Associate Deans interviews, and the workshop for publication.

**Table 1: Response rate from course chairs, clerkship directors, and unit managers (or equivalents) and number of courses in the medical school curriculum represented in the program scan at the Universities of Calgary, Saskatchewan, and Manitoba**

	<b>University of Calgary</b>	<b>University of Saskatchewan</b>	<b>University of Manitoba</b>
<b>Number Returned</b>	24/33	13/40	27/42
<b>Response Rate</b>	73%	33%	64%
<b>Courses in medical curriculum</b>	29	not yet available	not yet available
<b>Courses represented from program scan</b>	22	13	26
<b>Percent</b>	76%	not yet available	not yet available

**Table 2: Response Rate from Medical Students at the Universities of Calgary, Saskatchewan, and Manitoba**

	<b>Number Returned</b>	<b>Response Rate (%)</b>
University of Calgary		
• First-Year (n=114)	97	85
• Second-Year (n=97)	80	82
• Third Year (n=78)	78	100
University of Saskatchewan		
• First-Year (n=58)	19	33
• Second-Year (n= 56)	15	28
• Third-Year (n=53)	11	21
• Fourth-Year (n=55)	4	7
• Year unknown	3	
University of Manitoba		
• First-Year (n=85)	37	44
• Second-Year (n=78)	22	27
• Third-Year (n=76)	16	21
• Fourth-Year (n=68)	20	29

**Table 3: Course chairs, clerkship directors, unit managers, and other non-student coordinators responses about whether and what aspect of CAM is included in their course**

	University of Calgary	University of Saskatchewan	University of Manitoba
Some element of CAM is discussed at some point in the course <sup>3</sup>	41% (9 of 22 courses represented in survey)	46% (6 of 13 courses represented in survey)	23% (6 of 26 courses represented in survey)
What CAM topic(s) is/are covered in your course? <sup>4</sup>			
• philosophy of CAM	1	1	2
• efficacy & safety of CAM	3	1	2
• extent & reasons for use of CAM	3	1	2
• legal implications of practice	2	-	1
• ethical aspects of CAM	3	1	2
• cultural aspects of CAM	2	1	4
• other topics <sup>5</sup>	4	2	3
What modalities are covered in your course?			
• homeopathy	3	1	1
• chiropractic	2	-	1
• naturopathy	1	-	1
• acupuncture	1	1	1
• herbal medicine	4	3	3
• massage therapy	1	-	1
• traditional Chinese medicine	1	2	1
• mind-body healing	1	-	1
• other <sup>6</sup>	4	2	1

<sup>3</sup> *post hoc* variable based on responses to questions 3 (What CAM topic(s) is/are covered in your course) and 4 (What modalities are covered your course?). The percent is based on the respondents who indicated that some element of CAM is discussed in their course. Therefore, the percent noted is not based on the number of courses in the institution's UME program; only on the courses represented in the survey.

<sup>4</sup> One of the courses at the University of Calgary had two instructors which selected different responses on these questions. Only the topics and modalities that they both selected were counted.

<sup>5</sup> Of the respondents that checked "other", topics included: "how to conduct a nonjudgmental history taking on CAM patients may be using", "depends on cases presented by the student groups", "depends on topics requested by student." "depends on ward cases". Some respondents did not elaborate.

<sup>6</sup> Of the respondents that checked "other", modalities included: "case presentation of shark cartilage in metastatic cancer", "yoga" "reflexology". Some respondents did not elaborate.

**Table 4: Course chairs, unit managers, and other non-student coordinators opinions about the importance of CAM and the teaching of CAM in the UME curriculum.**

	University of Calgary (N=24)	University of Saskatchewan (N=12)	University of Manitoba (N=25)
Believe that (some) CAM is important in the UME curriculum?	100% <sup>7</sup>	100%	80%
How should CAM be taught?			
• stand alone course	21%	50%	40%
• integrated within regular courses	75%	17%	50%
• both stand alone and integrated <sup>8</sup>	4%	33%	5%
• either stand alone or integrated <sup>6</sup>	-	-	5%
Should CAM be taught only by physicians or should CAM providers be included as teachers? <sup>9</sup>			
• physicians	54%	42%	5
• CAM providers	13%	33%	50%
• both <sup>10</sup>	29%	25%	45%
• university faculty <sup>8</sup>	4%	-	-

<sup>7</sup> University of Calgary – N=23 for this question

<sup>8</sup> *post hoc* inclusion based on questionnaire responses

<sup>9</sup> This question is open to interpretation. We cannot be certain whether respondents who checked *CAM providers* did so thinking it would mean teaching by physicians and CAM providers (as the question implies), or if they meant teaching by only CAM providers. The post-hoc item “both” further complicates the interpretation.

<sup>10</sup> *post hoc* inclusion based on questionnaire responses

**Table 5: Course chairs, unit managers, and other non-student coordinators opinions about the teaching methods most suitable for CAM**

<b>Teaching Methods</b>	<b>University of Calgary (N=24)</b>	<b>University of Saskatchewan (N=11)</b>	<b>University of Manitoba (N=26)</b>
Case studies	9	4	9
Lectures	11	3	8
Small Groups	13	4	3
Student Presentations	2	1	2
Electives	1	1	-
Observations	1	1	1
Suggested Literature	4	1	4
Simulated Patients	5	-	2
Critical Appraisal	14	8	7
Field Study	-	-	1
Invited Guests	5	4	6
Seminars	5	4	4
Other	1	-	2
<b>Average Number per Respondent</b>	2.96	2.38	1.88

**Table 6: Course chairs, unit managers, and other non-student coordinators opinions about the knowledge, skills, and attitudes that graduating medical students should have<sup>11</sup>.**

<b>Content areas</b>	<b>University of Calgary (N=24)</b>	<b>University of Saskatchewan (N=13)</b>	<b>University of Manitoba (N=25)</b>
<b>Knowledge</b>			
• basic understanding of CAM approaches patients are using	88%	92%	96%
• understanding of reasons why patients use CAM	96%	100%	100%
• knowledge of CAM evidence	88%	100%	88%
• knowledge of evidence based CAM information sources	88%	83%	80%
• knowledge of CAM professions that are regulated/licensed	71%	83%	92%
<b>Skills</b>			
• ability to communicate about alternative treatment options	71%	73%	77%
• ability to access evidence based CAM information sources	83%	91%	92%
• ability to include CAM in history taking	92%	92%	96%
• ability to identify risks and potential interaction effects of CAM	100%	100%	92%
<b>Attitudes</b>			
• willing to communicate with patients about CAM	92%	92%	96%
• willing to monitor patients who use CAM	71%	55%	54%
• willing to refer patients to licensed CAM providers	42%	36%	40%
• willing to communicate with CAM practitioners	63%	46%	69%

<sup>11</sup> percent that agree with the checklist item

**Table 7: Courses in which both the Class Representative and the Course Chair at the University of Calgary completed the program scan**

Course	Course Chair some inclusion of CAM in course	Class Rep some inclusion of CAM in course	Agreement by course chair and student rep <sup>12</sup>
MDCN (440)			*
Cardiovascular			*
Clerkship Anesthesia			*
Clerkship – Internal Medicine			*
Clerkship – Psychiatry			*
Gastrointestinal	✓		
Human Development	✓	✓ (1/3)	✓
Integrative	✓	✓ (2/2)	✓
Medical Skills	✓	✓ (3/6)	✓
Mind			*
Neuroscience		✓ (1/1)	
Renal & Electrolyte	✓		
Reproduction			*
Respiratory		✓ (1/3)	
RMEBM (340)			*

- Overall, there are 15 courses in which both the course chair/clerkship director and at least one class representative completed the scan. There was agreement between the two groups of respondents in 11 of these courses.
- Of the 15 courses, there were five courses in which the course chair said CAM was included, and five courses in which the class representative said CAM was included. However, in only 3 of the 7 courses was there agreement: Human Development, Integrative, and Medical Skills.

<sup>12</sup> ✓ indicates courses in which both course chairs and class representatives agreed that CAM was included;  
\* indicates courses in which both groups agreed that CAM was not included.

**Table 8: Medical students opinions about the knowledge, skills, and attitudes that graduating medical students should have<sup>13</sup>.**

Content areas	University of Calgary (N=255)	University of Saskatchewan (N=52)	University of Manitoba (N=94)
<b>Knowledge</b>			
• basic understanding of CAM approaches patients are using	86%	100%	95%
• understanding of reasons why patients use CAM	82%	90%	92%
• knowledge of CAM evidence	78%	84%	86%
• knowledge of evidence based CAM information sources	77%	87%	84%
• knowledge of CAM professions that are regulated/licensed	76%	85%	83%
<b>Skills</b>			
• ability to communicate about alternative treatment options	67%	77%	70%
• ability to access evidence based CAM information sources	80%	79%	82%
• ability to include CAM in history taking	84%	82%	87%
• ability to identify risks and potential interaction effects of CAM	84%	96%	89%
<b>Attitudes</b>			
• willing to communicate with patients about CAM	88%	85%	80%
• willing to monitor patients who use CAM	62%	58%	59%
• willing to refer patients to licensed CAM providers	54%	52%	50%
• willing to communicate with CAM practitioners	78%	71%	70%

<sup>13</sup> percent that agree with the checklist item

## **APPENDIX A**

### **CAM in UME Program Scan**

# Complementary and Alternative Medicine (CAM) in UME: A Program Scan

(For Course Chairs, Clerkship Directors, Class representatives)

**For the purpose of this questionnaire, CAM is defined as modalities not normally taught as part of Western medicine, such as acupuncture, chiropractic, naturopathy, herbal medicine, mind-body healing, homeopathy, Traditional Chinese Medicine and Massage therapy.**

## I Current Course Content

Name of the course: \_\_\_\_\_

1. What is your role?

- Course Chair  
 Class representative

- Unit Manager  
 Other, \_\_\_\_\_

2. Is your course:

- Required  
 Elective

- Other, please specify  
\_\_\_\_\_

3. What CAM topic(s) is/are covered in your course? (**Please check as many as apply**)  
If your course does NOT cover any aspects of CAM, please go to Section II on the next page.

- Philosophy of CAM  
 Efficacy and safety  
 Extent and reasons for use  
 Legal implications of practice

- Ethical aspects  
 Cultural aspects  
 Other, please specify  
\_\_\_\_\_

4. What modalities are covered in your course? (**Please check as many as apply**)

- Homeopathy  
 Chiropractic  
 Naturopathy  
 Acupuncture  
 Herbal medicine

- Massage Therapy  
 Traditional Chinese Medicine  
 Mind-Body healing  
 Other  
\_\_\_\_\_

5. Do your course objectives explicitly address CAM?  Yes  No

If yes, please attach the objective(s) to this questionnaire

6. Does evaluation in your course test knowledge of CAM?  Yes  No

7. In what context does CAM teaching in your course take place? (For example, evidence based medicine, chronic pain, MSK, etc.)

8. What teaching methods are used for CAM teaching in your course? (Please check as many as apply). If you use these methods, how much time would you estimate you spend on CAM?

- |  |               |             |
|--|---------------|-------------|
| <input type="checkbox"/> Case studies          | _____ minutes | _____ hours |
| <input type="checkbox"/> Lectures              | _____ minutes | _____ hours |
| <input type="checkbox"/> Small groups          | _____ minutes | _____ hours |
| <input type="checkbox"/> Student presentations | _____ minutes | _____ hours |
| <input type="checkbox"/> Observations          | _____ minutes | _____ hours |
| <input type="checkbox"/> Suggested literature  | _____ minutes | _____ hours |
| <input type="checkbox"/> Seminars              | _____ minutes | _____ hours |
| <input type="checkbox"/> Field study           | _____ minutes | _____ hours |
| <input type="checkbox"/> Invited quests        | _____ minutes | _____ hours |
| <input type="checkbox"/> Electives             | _____ minutes | _____ hours |
| <input type="checkbox"/> Critical appraisal    | _____ minutes | _____ hours |
| <input type="checkbox"/> Simulated patients    | _____ minutes | _____ hours |
| (e.g., in Communications Course)               |               |             |
| <input type="checkbox"/> Other, please specify | _____ minutes | _____ hours |

## II. Teaching method(s) suited to teach about CAM

1. Do you believe (some) CAM teaching is important in the Undergraduate Medical Curriculum?  Yes  No Please explain your answer briefly.

If NO, please go to section III on the next page.

2. What teaching methods are ideally suited to teach about CAM? (Please check up to a maximum of THREE methods).

- |  |  |
|--|--|
| <input type="checkbox"/> Case studies          | <input type="checkbox"/> Simulated patients (e.g., in Communications Course) |
| <input type="checkbox"/> Lectures              | <input type="checkbox"/> Critical appraisal                                  |
| <input type="checkbox"/> Small groups          | <input type="checkbox"/> Field study   |
| <input type="checkbox"/> Student presentations | <input type="checkbox"/> Invited quests                                      |
| <input type="checkbox"/> Electives             | <input type="checkbox"/> Seminars  |
| <input type="checkbox"/> Observations          | <input type="checkbox"/> Other, please specify                               |
| <input type="checkbox"/> Suggested Literature  | _____  |

3. Should CAM teaching be integrated within courses or be offered as a stand-alone course?

- Stand alone course  
 Integrated within regular courses

4. Should CAM providers be included as teachers or should CAM be taught only by physicians?

- Physicians  
 CAM providers

### III Opinions about required knowledge, skills and attitudes for graduating medical students

For each of the items below, please check whether you agree or disagree that this should be part of the Undergraduate Medical Curriculum. Please check 'don't know' if you are not sure.

<b>Knowledge</b>	<b>Agree</b>	<b>Disagree</b>	<b>Don't know</b>
Basic understanding of CAM approaches patients are using			
Understanding of reasons why patients use CAM			
Knowledge of CAM evidence			
Knowledge of evidence based CAM information sources			
Knowledge of CAM professions that are regulated/licensed			
Other, please specify			
<b>Skills</b>			
Ability to communicate about alternative treatment options			
Ability to access evidence based CAM information sources			
Ability to include CAM in history taking			
Ability to identify safety risks and potential interaction effects of CAM			
Other, please specify			
<b>Attitudes</b>			
Willing to communicate with patients about CAM			
Willing to monitor patients who use CAM			
Willing to refer patients to licensed CAM providers			
Willing to communicate with CAM practitioners			
Other, please specify			

**Please insert below any other comments you may have about CAM teaching in UME.**

**Thank you for responding to this questionnaire!!!**

## **APPENDIX B**

### **University of Manitoba's CAM Course**

# COMPLEMENTARY & ALTERNATIVE MEDICINE COURSE

Introduction and Objectives:  
a portion of the Student Manual

Faculty of Medicine  
University of Manitoba  
Class of 2004

**Introduction:**

A majority of Canadians have used at least one alternative therapy at some point in their life. Most Canadian medical schools now offer some lessons on alternative or complementary therapies. The federal government is spending over \$7 million over a 3 year period to create a new regulatory organization to oversee herbal remedies and other natural health products.

Even though the focus of medical studies in Canadian universities is on chemical and physical healing modalities, a global perspective suggests many types of healing outside of these parameters. The trend in health care, both locally and globally, is towards a more holistic approach. People have different reasons for choosing complementary and alternative health care. Some are living with diseases for which conventional therapies offer no cure. Some are worried about the risks and side-effects of conventional medicines. Most have greater access to information about systems of healing outside of what their conventional doctor shares with them. People are generally assuming greater personal responsibility for their health. Some are more comfortable seeing a health practitioner who incorporates spiritual values in their practice.

With the abundance of choices of complementary and alternative medicine, it becomes quite a challenge to be knowledgeable enough to give advice to patients. Given that most Canadians continue to use conventional medical care even when they use other systems, and that research shows that the majority of people still respect the opinions of conventionally trained doctors, it would seem that the most responsible way for conventional doctors to respond is to increase their understanding of complementary and alternative health care so as to be in a better position to assist patients in achieving their optimal health.

In order to better understand the health systems prevalent in Canada, and to be in a position to assist patients, this course will attempt to define what is meant by complementary and alternative medicine. This will include a review of what is encompassed by conventional medicine. So as not to forget the real determinants of health, a global perspective will be presented at the start, followed by a focus on several complementary systems.

Safety, quality, efficacy and cost of various treatments will be explored with guidelines on choosing products as well as practitioners.

This course has come into existence not only because it is responding to society's needs, but also because of requests from medical students over the past few years. Your constructive feedback will assist in improving it. Please contact me for any concerns or feedback related to this course.

**Brenda Maxwell, MD, MSc, CCFP**

[bjmaxwel@mts.net](mailto:bjmaxwel@mts.net)

## **Course Structure:**

The course will explore the difficulty in classifying the various systems of healing, and Tataryn's four paradigms of medicine will be studied as one system of classification. Rather than trying to understand the plethora of therapies available the course will focus on just a few of the more common ones seen in Canada today.

The seminars will be:

- ◆ Introduction to Complementary and Alternative Medicine
- ◆ Body-Mind therapies
- ◆ Naturopathy
- ◆ Homeopathy
- ◆ Chiropractic
- ◆ Chinese Medicine & Acupuncture

## **Course Evaluation:**

This course will be evaluated through multiple-choice questions on the Block V examination.

---

### **Seminar 1: Introduction to Complementary and Alternative Medicine Dr. Brenda Maxwell, MD1, MSc. CCFP.**

#### **Objectives:**

- ◆ Appreciate the determinants of health and principles of healing from a global perspective
- ◆ Be able to define, but understand the difficulties inherent in any definition of Complementary and Alternative Medicine (CAM)
- ◆ Learn Tataryn's system of classification of Complementary, Alternative and Conventional Medicine
- ◆ Clarify the role of Conventional Health Practitioners in treating patients using CAM
- ◆ Appreciate how Evidence Based Medicine and regulatory standards apply to CAM

### **Seminar 2: Understanding Body-Mind Therapies Douglas J. Tataryn, PhD**

#### **Objectives:**

- ◆ Distinguish Body-Mind interventions from other types of CAM
- ◆ Know the different types and assumptions of Body-Mind interventions
- ◆ Understand the scientific and theoretical basis of Body-Mind interventions
- ◆ Discuss different barriers to integration

**Seminar 3: Naturopathy**  
**Gordon Sims, ND**

**Objectives:**

- ◆ Understand the training and licensure requirements of a naturopathic doctor (ND).
- ◆ Be aware of at least four types of therapies practiced by NDs.
- ◆ Give at least three examples of integrated models of health care that incorporate naturopathic medicine.
- ◆ Understand the role of conventional medicine with respect to naturopathic medicine.

**Seminar 4a: Homoeopathy**  
**Leelamma Nielsen, DMS**

**Objectives:**

- ◆ State how homeopathy began, what it is, and its concept of health, disease, and cure
- ◆ Explain the ten doctrines of homeopathy
- ◆ Explain how and from what sources homeopathic remedies are produced

**Seminar 4b: Chiropractic**  
**Doug Priestley, DC**

**Objectives:**

- ◆ State three principals of chiropractic
- ◆ Explain three effects of chiropractic manipulation

**Seminar 5: Acupuncture**  
**Dr. Greg Chernish, MD**

**Objectives:**

- ◆ Define acupuncture and state five traditional concepts concerning it.
- ◆ State four criteria used to establish a diagnosis.
- ◆ Describe the treatment method regarding diagnosis, type of needle, number of needles, depth, time, location selection, and frequency of treatments.
- ◆ Know which aspects of acupuncture are supported by scientific evidence, and appreciate the problems in doing randomized double-blind placebo-controlled studies.

## **APPENDIX C**

### Associate Dean Interview Guide

## Interview Guide Associate Deans

1. What topics related to Complementary and Alternative Medicine do you think should be covered in Undergraduate Medical Education?  
(prompts : philosophy of CAM, efficacy/safety, extent and reasons for use, legal implications of practice, ethical aspects, cultural aspects, other?)
2. What modalities, if any, do you think need to be addressed in UME? In how much depth? (examples, homeopathy, naturopathy, chiropractic, acupuncture, herbal medicine, massage therapy, traditional Chinese Medicine, mind-body healing, other)
3. Some schools have stand alone courses in CAM, others prefer to integrate CAM within regular courses. What is your preference? Why?
4. Is your curriculum currently addressing issues relating to CAM? If no, are there any plans to do so? If yes, are you satisfied with the way it is going? (need to expand, cut back...)
5. What kind of issues related to CAM in UME would you like to address at the APMC Meeting for Associate Deans on Saturday April 27?
6. How important are the following issues to you?
  - a. Developing goals and objectives with respect to knowledge, skills and attitudes regarding CAM for graduating medical students
  - b. Identifying most suitable teaching methods
  - c. Development of CAM course
  - d. CAM case development
  - e. Focusing on CAM or focusing on multiple determinants of health
  - f. Making a plan to develop recommendations for future directions for CAM in UME (ie what do we need in order to develop recommendations)
7. Of the six issues listed above, which three do you consider to be most important?
8. Is there anything else you'd like to comment on?

## **APPENDIX D**

ACMC CAM in UME Associate Dean Workshop

# Complementary & Alternative Medicine in Undergraduate Medical Education

## ACMC Annual Meeting

### CAM in UME workshop – UME Associate Deans

Saturday, April 27, 2002 – 8:30-11:30am

#### SUMMARY

<i>Attending</i>	Dr. Rick Birtwhistle (Queens) Dr. Brigitte Bonin (Ottawa) Dr. Oscar Casiro (Manitoba) Dr. Chris Cheeseman (Alberta) Dr. Rick Frecker (Toronto) Dr. Grand'Maison (Sherbrooke) Dr. Allan Jones (Calgary) Dr. Raymond Lalande (Montreal)	Dr. Bryan Magwood (Manitoba) Dr. Alan Neville (McMaster) Dr. Linda Peterson (Ottawa) Dr. Jay Rosenfield (Toronto) Dr. Richard Rowe (Dalhousie) Dr. Wes Schreiber (UBC) Dr. Tom Scott (Memorial)
<i>Absent</i>	Dr. Donald Boudreau (McGill) Dr. Jacques Frenette (Laval) Dr. Cynthia Kenyon (Western Ontario)	
<i>Facilitator</i>	Dr. Heather Boon (Toronto)	
<i>Presenter</i>	Dr. Marja Verhoef (Calgary)	
<i>Note taking</i>	Rebecca Brundin-Mather (Calgary)	
<i>Observer</i>	Joan Simpson (Health Canada)	

As a starting point, the group discussed and agreed that graduating medical students should have the following knowledge, skills, and attitudes. These will need to be refined and written as specific objectives.

#### Knowledge:

- Definition of CAM (including an awareness of CAM practices)
- Safety issues - know where there is evidence of benefit or harm
  - be aware that some CAMs have interactions with conventional medicine
- Knowing where or how to find information about CAM
- Common uses of CAM: who uses CAM, what they use, and why patients seek CAM (ethno-cultural awareness)
- The meaning and evaluation of CAM evidence – cultural and philosophical differences
- Regulation of CAM practitioners, including provincial guidelines and physicians' roles and responsibilities regarding referrals to CAM practitioners
- The limits of conventional medicine in the context of the history of medicine and of evidence based medicine.
- Objectives for Medical Council of Canada licensure (when developed)

#### Skills

- Being able to access and evaluate information about CAM, in particular, finding out about safety issues

- Being able to talk to patients about CAM
- Being able to include CAM in history taking

#### Attitudes

- Respectful and non-judgmental of patients who use CAM; open (but not gullible) regarding CAM potential
- Willing to talk to patients who use CAM

#### **Recommendations: Next Steps**

The following recommendations should all be linked to the educational goals and objectives with respect to knowledge, skills, and attitudes regarding CAM.

5. Define common and realistic educational objectives with respect to CAM – minimum level of knowledge, skills, and attitudes that graduating medical students should have
6. Assess what is currently being taught in medical schools across Canada, including identification of champions or leaders in this area
7. Exploration of financial, administrative, and other kinds of support for people to champion or implement CAM in UME
8. Compilation and organization of web-based resources that focus on CAM knowledge, skills, and attitudes that are already available or are being developed within each of the 16 Canadian medical schools. This would include learning tools such as cases or standardized patients roles, videos, self-learning modules, self-assessment quizzes, lectures, and useful web site materials that conform to the agreed upon objectives. It is imperative that the materials available on this site be continually updated, and a periodic assessment of the web site's utility should be conducted.
9. Faculty development
  - a. Creating an educational culture that diminishes negative opinions about CAM. This would include acknowledging the importance of CAM by a formal statement in the curriculum
  - b. Organizing workshops at a local level to update faculty about CAM content and appropriate knowledge, skills, and attitudes (this may involve linking with CME locally). One part of this process could consist of leaders in CAM education in medical schools traveling across Canada to provide educational resource workshops for faculty.

## **Points of Discussion**

Several issues were raised during the workshop with no definitive resolutions reached.

6. There should be symmetry in nationally discussed items regarding curriculum issues. In other words, a rationale for why CAM has been brought to the forefront and not other areas of importance. Also, if CAM is included in the curriculum, what topic(s) might have to be dropped, if any?
7. There should be consideration about how we can continue CAM education in clinical training. Some thoughts on this issue included:
  - a. Discuss postgraduate education as well as Continuing Medical Education
  - b. Target specialties with high CAM use
8. Physicians may not use the same outcome measures that are used in CAM. Therefore, physicians may find that it is difficult to evaluate CAM evidence. In this regard, physicians need to recognize their own belief systems when evaluating the nature of evidence.
9. There are several questions surrounding the legalities of referral to CAM practitioners.
  - a. Is this an area undergraduates need to know?
  - b. What are physicians' roles and responsibilities regarding referral?
10. Medical educators should convey a culture of respect for CAM practitioners, but what should this entail? What does professional respect accord?

## Objectives Survey

I It was agreed that graduating medical students should have certain knowledge, skills, and attitudes with respect to complementary and alternative medicine. Within each of the three areas, indicate which objectives are most important and which are of lesser importance at the current stage. Please insert 1 (most important) or 2 (less important) in each box.

### Knowledge

- Definition of CAM (including an awareness of CAM practices)
- Safety issues - know where there is evidence of benefit or harm  
- be aware that some CAMs have interactions with conventional medicine
- Knowing where or how to find information about CAM
- Common uses of CAM: who uses CAM, what they use, and why patients seek CAM (ethno-cultural awareness)
- The meaning and evaluation of CAM evidence – cultural and philosophical differences
- Regulation of CAM practitioners, including provincial guidelines and physicians' roles and responsibilities regarding referral
- The limits of conventional medicine in the context of the history of medicine and of evidence based medicine.
- Objectives for Medical Council of Canada licensure (when developed)

### Skills

- Being able to access and evaluate information about CAM, in particular, finding out about safety issues
- Being able to talk to patients about CAM
- Being able to include CAM in history taking

### Attitudes

- Respectful and non-judgmental of patients who use CAM; open but not gullible regarding CAM potential
- Willing to talk to patients who use CAM

**II** The following recommendations for future action were made during the workshop. Please prioritize the recommendations by rank ordering the items from most important to least important (1=most important, 5=least important).

- Define common and realistic educational objectives with respect to CAM – minimum level of knowledge, skills, and attitudes that graduating medical students should have
- Assess what is currently being taught in the medical schools across Canada, including identification of champions or leaders in this area
- Exploration of financial, administrative, and other support for people to champion or implement CAM in UME
- Compilation and organization of web-based resources that focus on CAM knowledge, skills, and attitudes.
- Faculty Development
  - a. Creating an educational culture that diminishes negative opinions about CAM.
  - b. Organizing workshops at a local level to update faculty about CAM content and appropriate knowledge, skills, and attitudes (this may involve linking with CME locally).

**III** Of the recommendations underscored during the workshop, are there any you would see your medical school undertaking in the next year at your own initiative? If so, please check which ones they are.

- Define common and realistic educational objectives with respect to CAM – minimum level of knowledge, skills, and attitudes that graduating medical students should have
- Assess what is currently being taught in the medical schools across Canada, including identification of champions or leaders in this area
- Exploration of financial, administrative, and other support for people to champion or implement CAM in UME
- Compilation and organization of web-based resources that focus on CAM knowledge, skills, and attitudes.
- Faculty Development
  - a. Creating an educational culture that diminishes negative opinions about CAM.
  - b. Organizing workshops at a local level to update faculty about CAM content and appropriate knowledge, skills, and attitudes (this may involve linking with CME locally).