



# STUDY OF CLINICAL TEACHERS IN CANADIAN FACULTIES OF MEDICINE

## A Discussion Paper – 2009

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### **Tribute to Dr. David Cook (1942 – 2009)**

On September 13, 2009, the Association of Faculties of Medicine of Canada was saddened by the sudden loss of Dr. David Cook.

As the lead investigator on the Study of Clinical Teachers in Canadian Faculties of Medicine, David's interest was to have a positive impact on the working conditions of clinical educators.

David travelled across the country to interview deans, associate deans, administrators, teachers and students. In this study David gives voice to the perspectives of clinical teachers and others on teaching and learning in a clinical environment. Through every personal meeting and the publication of this report, David's passion and devotion to medical education will carry forward.

### **Acknowledgments and Many Thanks**

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## Executive Summary

In 2008, the Association of Faculties of Medicine of Canada initiated a study of clinical teachers. The goal is to provide our Deans, administrators and policy makers with an evidence-based framework for understanding how clinical educators are being supported during a period of fast-paced growth and expansion of the MD and postgraduate education systems. In particular, the study focuses on: discovering best practices in employing clinical teachers; understanding the complex relationship between clinical teachers, faculties of medicine, universities, medical associations and governments across Canada; identifying the resources required to support clinical teachers across all settings; and assessing future and current capacity issues.

The report includes results from qualitative and quantitative data collection activities including interviews, a literature review, and national survey. Dr. David Cook, lead investigator for the project, conducted lengthy interviews with more than 200 informants including administrators, clinical teachers (at both main and distributed campuses), deans, government representatives, and representatives from medical associations. The interviews were designed to give a personal voice to the challenges as well as the successes encountered by those involved in clinical teaching.

### 1) FINDINGS

#### SPECIFIC CHALLENGES OF CLINICAL TEACHING IN CANADA

Respondents in the study highlighted a number of challenges related to their workload, communication, environment, and clinical teaching within an environment with satellite sites. A large number of the clinical educators in the study indicated that there is consistent pressure to balance their clinical and teaching commitments. This issue is compounded for physicians that had not intended on teaching but now find themselves in teaching roles because they are located at newly assigned community education sites.

The clinical teachers in the study felt that students were not sufficiently primed or prepared for the clinical settings, adding time to their teaching activities. In particular, clinical educators suggested that international medical graduates were more likely to require extra attention because of a lack of preparedness.

Respondents in the study indicated that space was a concern. Clinical facilities, already at capacity, are not able to accommodate room for residents. There was concern that with the increased demand for community-based learning sites, not all available patients were suitable for teaching purposes.

Clinicians at community and distributed sites felt that there was an unfounded concern by teachers in main campuses that remote campuses would be perceived as less professional

or second-rate when in fact, teachers in the program felt there was considerable benefit to teaching at distributed sites. In reality, students and residents were delighted with the training that they received at such sites. In addition, clinical teachers from the distributed campuses were enthusiastic about being actively involved in teaching of undergraduates rather than being merely recipients of the teaching provided by the main campus. Those teaching in the community were firmly convinced of the benefits of learning taking place at sites away from the main campus.

#### RECOGNITION, REWARD, REMUNERATION

Recognition, reward and remuneration were perhaps the most prominent elements of discussions in the study. Policies underlying monetary rewards for clinical teachers vary significantly within and between Universities. Annual remuneration was the most frequently cited method, with scales ranging from less than \$500 to \$160,000. Similarly, the scales of daily remuneration ranged from \$100-\$1000. The results indicate considerable disparity in income support and remuneration. Part-time instructors experience the greatest degree of variability in compensation; most part-time staff received some form of honorarium and stipend, rather than a full salary. Respondents in all positions suggest that as demands for clinical teaching increase and as the list of potential disincentives for clinical teachers continues to mount, a climate of professional and personal unrest is developing among some part-time instructors.

Alternative Funding Plans, while not universal, were seen as a positive income arrangement that permit clinicians to structure their work so they can pursue responsibilities in teaching and research with less negative effect on their income.

It is also important to note that many of the part-time staff members that were interviewed stressed that “it is not about the money”; they were motivated by the opportunity to interact with students and their colleagues. They highlighted the fact that clinical teaching enhances their own clinical practices through their interaction with those who have the latest training.

#### ACCOUNTABILITY AND ASSESSMENT

It was clear from the study that clinical educators would like to see a comprehensive and standardized process of evaluation. Respondents indicated that an ideal process would include: a standardized method for collective evaluation data, transparency in the use of the information, and sensitivity and limitations on how the information is shared.

According to respondents, assessments of clinical teachers are variable and assessments of teaching in clinical settings are sometimes not conducted at all. The findings also suggest that in about half of the faculties of medicine, there is no uniform system for providing assessment results to instructors. In addition, findings suggest that clinical teachers are more likely to receive feedback from students than from their peers or administrators. The issues related to evaluation are intrinsically linked to concerns regarding other supports for clinical teachers such as investments in faculty development and advancement.

#### THE NEED FOR FACULTY DEVELOPMENT AND IMPROVEMENTS IN TEACHING FACULTIES AND PROGRAMS

Most clinical teachers in the study recognized that they benefit from faculty development; however there are significant barriers that prevent them from participating. According

to the study, clinicians are faced with increasing demands for clinical service and their priority is meeting the needs of their patients. In addition, respondents indicated that scheduling, location and the financial burden of time away from their practice were often the most significant barriers to participating in faculty development. Clinicians also suggested that in many cases, workshops were too generic in scope. They expressed a need for workshops tailored to their clinical teaching environment. A number of more successful practices were highlighted such as providing online workshops, hosting in-person events within the clinical setting, scheduling evening workshops or weekend sessions, and planning faculty development opportunities in conjunction with other continuing medical education events.

There were clinical teachers in the study that did not believe faculty development was a necessity. For some, there is a belief that teaching is innate, that “You either have it or you don’t”, or that expertise in the subject matter translates into the ability to teach. Perhaps the most significant challenge that was revealed in the study is that those who are most in need of faculty development almost never attend, and programs end up making good teachers better rather than identifying teachers in need of additional training and making them more competent.

## SALARY AND PROMOTION DECISIONS

The study identified five major elements of an equitable system for determining salary and promotion opportunities but found that currently no medical school in Canada has fully developed all five of the criteria. The criteria included: (1) Accepted standards of adequate performance, (2) Systematic review of the performance of the academic staff (3) Mechanisms for rewarding excellence, which can reasonably be applied when appropriate evidence is presented, (4) Structured and effective means of providing assistance to those whose performance is sub-optimal, and (5) Options for sanctions against those whose performance is consistently sub-optimal. Most frequently absent in the current systems were assistance and sanctions for poor performance.

The study revealed that clinical teachers were cynical about processes of evaluation and reward because promotions are often intrinsically linked to research activities rather than teaching abilities. In general, the findings suggest that when promotion is lacking, morale can drop and there is less incentive for clinicians to take on more teaching and administrative responsibilities.

## OTHER MODELS OF CLINICAL TEACHING

The study explored alternate options for teaching including the practice of hiring residents and other health professionals as teachers. Clinical skills teachers and clinical skills training centres, simulations, personal digital assistants and e-learning tools to conduct distant learning were also highlighted as alternate options.

While not all residents in the study embraced the opportunity to teach, many enjoyed teaching and felt it was a source of pride. The issues identified by residents in teaching roles were similar to clinical teachers. Remuneration for residents as teachers is not consistent; not all are compensated for teaching. In addition, adequate time to prepare was lacking, observation and feedback from preceptors was not systematic and many felt they were never given a clear statement of teaching responsibilities.

## THE BROADER PERSPECTIVE – CLINICAL TEACHING, GOVERNMENT AND UNIVERSITIES

Improving communication and collaboration among all stakeholders in medical education is a consistent message from respondents. Faculty administrators believe that improving communication between the Faculties, provincial governments, and medical associations can generate a better informed decision making process. In addition, clinical teachers feel disconnected from the decision making processes and would like to have more input and involvement in decisions that affect their role as clinical teachers.

It is suggested that decision-making at the provincial level has generated unanticipated consequences for medical education which may have been avoidable with better collaboration. Across the board, respondents reported that recent increases in student enrolment and increasing demands for direct patient care are adding to the stress on personnel, funding, and the delivery of curriculum. Ultimately, decisions are having an impact on the Universities' ability to attract and retain clinical teachers.

## 2) PROJECT RECOMMENDATIONS

Based on the literature review and the analysis of survey responses and interview data, the following recommendations are offered for consideration:

### 1. COLLABORATION AND A NATIONAL INVENTORY OF EXEMPLARY PRACTICES

Structures should be created that enable multiple levels of interaction and collaboration relating to clinical teaching. This would include interaction among Deans and Associate Deans, clinical instructors themselves, as well as educators and funders of medical education from across the country. These structures would provide a forum for ongoing discussions relating to clinical teaching in Canada. Moreover, a national inventory of exemplary practices should be resourced, covering all areas relevant to clinical teaching. In addition, a mandatory introduction to clinical teaching, based on these exemplary practices, should be developed for new instructors.

### 2. DISTRIBUTED LEARNING/COMMUNITY SITES

The clinical curriculum at distributed sites should be developed with significant and regular input from clinical teachers at distributed sites. There should be clarity in terms of the objectives, outcomes, and competencies that should be achieved by students. Distributed sites also require more resources and administrative support to become full partners in the clinical teaching endeavor.

### 3. THE ROLE OF THE CLINICAL TEACHER

Universities should make expected teaching contributions clear to instructors in clinical teaching programs at least a year in advance, and these expectations should not include logistical issues such as parking, transportation, and space. Where teachers are expected to play an administrative role, adequate infrastructure support should be provided.

### 4. REMUNERATION

Alternative funding plans (AFPs) should be in place in all units and the income derived from them should be equitably distributed and form a significant part of the total income for the clinician-teacher.

## 5. RECOGNITION

Recognition for clinical teaching should include both ongoing public acknowledgement of the important contribution of clinical teaching as well as appropriate financial reimbursement.

## 6. CLERKS AND RESIDENTS

Before beginning their clinical training, clerks and residents should be given clear instructions as to appropriate behavior during the clinical learning experience. They should be given guidance regarding ways to make the experience more rewarding for themselves and teachers. In addition, it should be made explicit to clerks and residents that teaching the next generation of doctors is an intrinsic part of clinical practice, and is expected of every practicing clinician. Educational development for residents should be required and geared to the roles that the resident will have as an instructor. Preceptors should be encouraged to watch their residents teach and provide appropriate encouragement and feedback. This process of direct observation should form part of the assessment of the overall performance of the resident.

## 7. ASSESSMENT

There should be a centralized, transparent, standardized and timely process in each faculty whereby students, residents, and peers have an opportunity to provide anonymous written feedback to instructors.

## 8. CONTINUOUS FACULTY DEVELOPMENT

Faculty development should be presented as an intrinsic part of functioning as a clinical teacher, rather than as an option. As such, for clinical teachers with teaching experience, there should be a requirement for periodic refresher courses in teaching. These courses should take place close to sites where teaching occurs, particularly where sites are in distributed locations. They should also occur at a time and for a duration that is convenient for those in clinical practice, and focus on the practical aspects of helping clerks and residents to learn.

## 9. SALARY AND PROMOTION DECISIONS

For those whose career depends on academic advancement, promotion criteria must be clear, widely available, and place an appropriate emphasis on education and associated administration. These criteria should be discussed with the instructor by the Chair or his/her delegate on an ongoing basis. Universities should also strive to provide rewards for clinical teaching staff whose teaching excels, and consider means by which pressure can be brought to bear on those whose teaching performance is substandard.

## 10. INNOVATION IN CLINICAL TEACHING

Faculties of Medicine should be encouraged to make greater use of innovations such as new and emerging technologies and new pedagogical approaches to clinical teaching. As well, models of clinical teaching that incorporate non-medical instructors should also be explored.



## I. Introduction

With the fast-paced growth and expansion of the MD and postgraduate education systems in Canada the deans and their faculties of medicine expressed a pressing need for a comprehensive study to better understand the clinical educators' environment and the contribution of the clinical teacher to the education of medical students and residents.

Since 1999, there has been a 63% increase in undergraduate enrolment and a 69% increase in postgraduate enrolment in Canadian faculties of medicine<sup>1</sup>. At the same time, the number of part-time faculty positions has increased from 4,293 to 4,680 while the number of full-time faculty has increased from 6,226 to 7,940. In turn, there has been the development of distributed campuses, more community-based residency rotations, and integrated community-based clerkships. These changes present more opportunities for clinical teachers to be a central component of medical education programs but also present a number of barriers and challenges.

There is an agreement among the deans of medicine that each of their faculties can learn from the experiences of the other. There is a need to provide government funders with more information to help clarify the complexity of the relationships, the resources needed, and the potential limitations and expansion opportunities in the clinical teachers' community. More information is needed to fully understand the true capacity to expand the clinical teachers' base and to identify the best ways in which to integrate clinical teachers into faculties of medicine.

In 2008, the Association of Faculties of Medicine of Canada (AFMC) embarked on the *Study of Clinical Teachers in Canadian Faculties of Medicine* to gather this information and provide each of the faculties of medicine with evidence-based recommendations to support teaching that is more effective, efficient and enjoyable for both staff and students, create more effective physicians and ultimately lead to better patient care.

The heart of the study comes from over 200 key informant interviews with administrators, clinical teachers situated in academic health centres and in the community-at-large, residents and medical students from all of Canada's 17 faculties of medicine. Key informants were identified and contacted by the Deans of each faculty, or their delegates.

Staff members of government agencies and medical associations also identified representatives to be interviewed as part of this study; these interviews provided a critical perspective - many described complementary and sometimes competing agendas that affect clinical teaching and the environment in which it is conducted.

The interviews provided a broad-based perspective on clinical teaching which formed the critical context for the development of an online survey that was subsequently administered to clinical teachers from across the country in order to assess the generalizability of the findings garnered through interviews. The survey instrument was reviewed by experienced professionals in the medical education system (2), by the AFMC Project Advisory Committee, and the Health Ethics Review Board of the University of Alberta. 1250 respondents completed the survey (3).

### 1) PROFILE OF SURVEY RESPONDENTS: WHO THEY ARE AND WHERE THEY TEACH

While almost every constituency was represented in both the survey and the interviews, the majority of survey respondents were full-time staff affiliated with a university teaching hospital, practicing in a medical specialty, and holding responsibilities for teaching both residents and clerks. About one third of the respondents had some administrative responsibilities connected with their teaching, mostly as program or clerkship directors. Clinical teachers that participated in the interviews had a similar profile, although there was a much higher representation of those with administrative responsibilities, particularly at the decanal level.

It should be noted that the definition of full-time and part-time varies slightly from university to university. For the purposes of the study, status for clinical teachers is defined as follows:

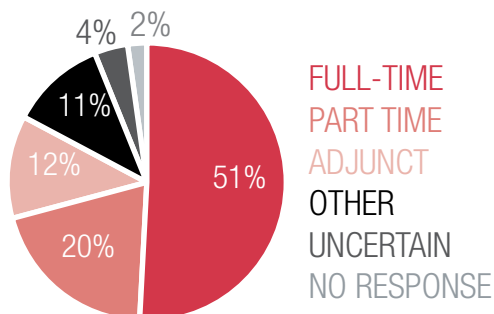
Full time staff members have an ongoing University appointment and academic rank with a primary source of income from a University appointment either by a direct salary or by an alternative funding plan. They primarily practice in a hospital with an explicit teaching mandate and are assigned formal teaching and/or administrative responsibilities in the teaching program. They are assessed on their contributions to teaching, clinical service, administration and/or research for promotion and sometimes for tenure by a committee of Faculty and/or university administrators.

Part-time staff members have an academic rank often described as "clinical" or "adjunct" with a primary source of income from a fee-for-service plan or a practice plan based on clinical service, in many instances with remuneration for assigned teaching responsibilities. Their primary responsibility is direct patient care with teaching duties in clinical and/or pre-clinical education programs and the possibility of administration of the clinical teaching program. Payment for teaching may be an honorarium or a stipend from the University or directly from the provincial government. Assessment for continuation and promotion is usually at the discretion of the Chair of their Department and a departmental promotions committee.

**a. University affiliation**

51% of survey respondents<sup>4</sup> described their status as full-time, 20% described their status as part-time, and 11% described their status as adjunct. 12% of respondents were unsure of their status, and 4% indicated “Other” as their choice, e.g. preceptor, consultant, or locum tenens.

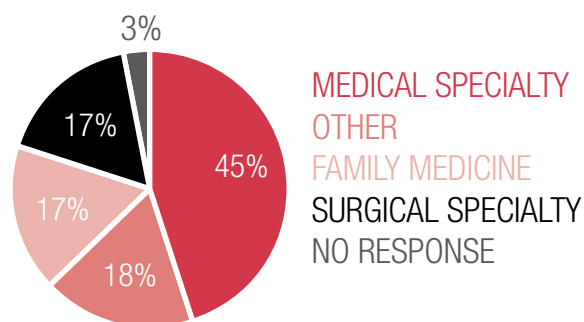
FIG 1. UNIVERSITY AFFILIATION



**b. Areas of clinical practice**

45% of respondents reported practicing in a medical specialty, while 17% reported practicing in family medicine and 17% in a surgical specialty. Of the 18% who indicated “Other” as their choice, the most prevalent areas of practice included anesthesiology (4%), psychiatry (3%), emergency medicine (2%), and radiology (2%).

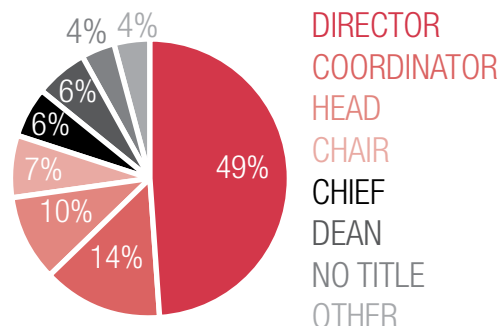
FIG. 2 AREA OF PRACTICE



**c. Administrative roles**

In addition to clinical teaching duties, about one third of survey respondents also described having administrative assignments. Of those, most described their administrative roles as Director (54%), followed by Coordinator (15%), Head (11%), Chair (8%), Chief (6%), Dean (including Associate or Assistant Dean) (6%), and Project Leader (2%). About 5% described themselves as having administrative duties but did not identify a classification. Some individuals held more than one title, in which case both were counted.

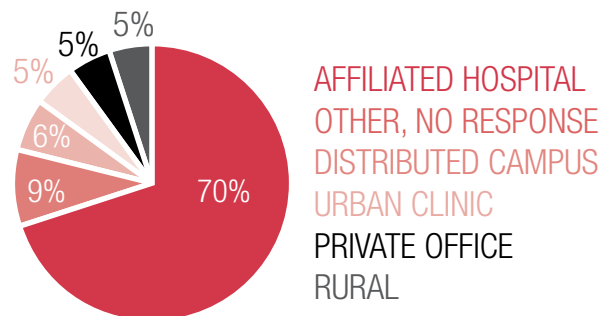
FIG 3. ADMINISTRATIVE ROLES



**d. Location of work**

A significant majority (70%) of clinical teachers who responded to the survey described their location of work as a University-affiliated teaching hospital, while 9% chose ‘hospital associated with a distributed campus’, and 5% selecting ‘clinic located in urban areas (population >60,000) or rural areas (population <60,000) (5%). Other clinical settings (4%) represented research facilities, teaching labs, mental health and rehabilitation agencies, and chronic care residences. The survey did not allow for multiple areas of practice.

FIG. 4 LOCATION OF TEACHING



**e. Trainees taught**

In describing the trainees, 94% of survey respondents reported teaching residents, 85% reported teaching medical students in clerkship programs, 64% reported teaching medical students in pre-clerkship programs, 43% reported teaching clinical fellows, and 15% reported teaching students in graduate research programs (MSc, Ph.D, and post-Ph.D). This question allowed multiple responses. Thus, the majority of clinical teachers taught learners at both undergraduate and residency levels

## II. Findings

Several major themes emerged as a result of the interviews and survey responses: (1) specific challenges experienced by those associated with clinical teaching, (2) issues related to recognition, rewards and remuneration for clinical teachers, (3) the need for accountability and assessment of clinical teaching, (4) the need for faculty development and improvements in teaching facilities and programs, (5) salary and promotion (6) other models of clinical teaching, (7) The broader perspective – clinical teaching, government and universities,

### 1) SPECIFIC CHALLENGES EXPERIENCED BY THOSE ASSOCIATED WITH CLINICAL TEACHING

#### a. Workload

Workload and the balance between clinical care and teaching duties created a pressure point for the majority (56%) of survey respondents. More than half reported a lack of time for clinical teaching and for structured teaching (lectures, seminars, and conferences), and fewer than 20% of respondents reported that things were “satisfactory” as they are. This issue was raised at all sites by clinical teachers who were interviewed.

The issue was particularly problematic for respondents who reported deliberately locating their clinical practice in a location in which it was anticipated that there would be no teaching expectations. These respondents reported now finding themselves being asked to teach, as community education sites become more prevalent. In some cases, these individuals are *required* to teach, by virtue of their clinical practice partnership agreement, and these respondents reported being less than content with the situation.

Another issue affecting the workload involved in clinical teaching was the preparation and attitudes of medical students. Sixty-two percent of survey respondents felt that students were prepared for the clinical experience, and 64% felt that students exhibited appropriate attitudes. Conversely, therefore, close to a third of

respondents did not feel this way. Some survey respondents commented specifically on the preparation of international medical graduates, asserting that these students sometimes require an increased time commitment on the part of the clinical teacher. Written comments from several survey responses suggested that these issues rendered the experience of clinical teaching less satisfying to the clinical teacher.

Some of those interviewed did not relish the process of summative evaluation of clerks and residents; this function was generally accepted as a necessary part of the role of teacher, however 70% of those responding were content with their role as evaluators. There was, however, sometimes a problem from the perspective of the Program or Course Director: *“People are reluctant to fail a student because if they do, they have to constantly defend their position and it makes for a whole lot more work”*.

#### b. Physical environment

Physical facilities for clinical teaching were identified by 56% of survey respondents as an area of concern:

*“There are just enough examining rooms for those in practice. Where do I put a resident?”*

About half of survey respondents also raised issues of simple administrative logistics such as scheduling or parking:

*“I get called to come and teach on two weeks notice!” “By the time I have found a parking space and found the place I am supposed to teach, I have wasted a lot of time.”*

In general, survey respondents were content with the availability and suitability of patients for teaching, although in the interviews, opinions were much more diverse. It was pointed out by some that many patients in tertiary care hospitals are not suitable for teaching, either because they have multiple conditions that make their problems very complex for trainees, or because they are in an active treatment bed when they should be in a long-term care facility.

#### c. Communication between administrators and the clinical teachers

Communication between clinical teachers and program administrators was a consistent issue emerging from the project interviews. Specifically, issues pertained to how well clinical teachers were kept informed of the objectives of programs as well as the process by which programs were administered, and to what extent they felt they could or could not influence the curriculum.

Survey responses with full-time faculty did not identify communication as a major challenge. Seventy percent of survey

respondents felt that they were familiar with the administrative processes of the program and its learning objectives (Figs 5 & 6). Interestingly, 70% of the respondents also reported being associated with a fully affiliated teaching hospital and about half had a full-time faculty appointment which may affect the fact that 70% were satisfied with communication levels.

FIG. 5 I UNDERSTAND THE ADMINISTRATIVE PROCESS FOR TEACHING RESIDENTS AND CLERKS

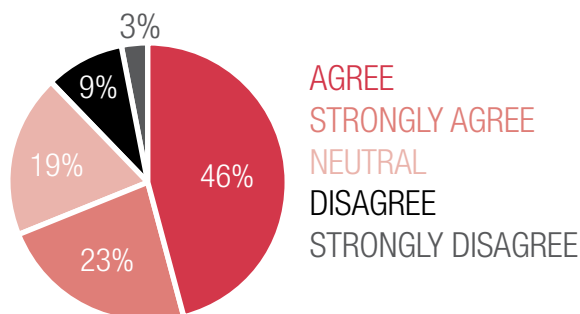
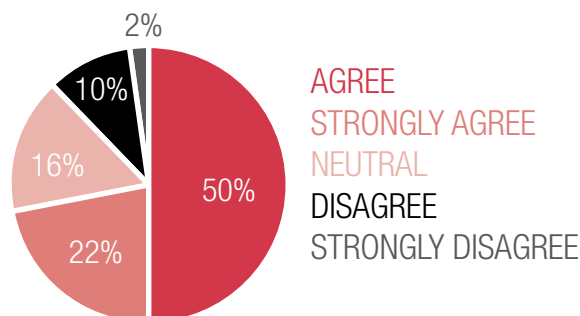


FIG. 6 I AM FAMILIAR WITH THE OBJECTIVES FOR THE TOPICS THAT I TEACH



All in all, a large majority of survey respondents were either satisfied with the present situation in regards to communication with the program or clerkship director, or would like to see only minor changes (Fig. 7); communication between clinical teachers and program directors seemed to be working well. It is, however, noteworthy that about 30% of the respondents felt that they had little input into the teaching process (Fig 8):

FIG. 7 EFFECTIVE COMMUNICATION WITH THE PROGRAM DIRECTOR

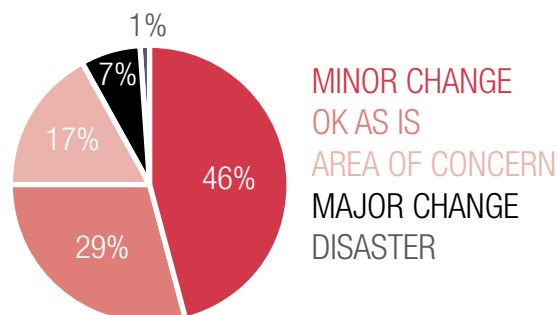
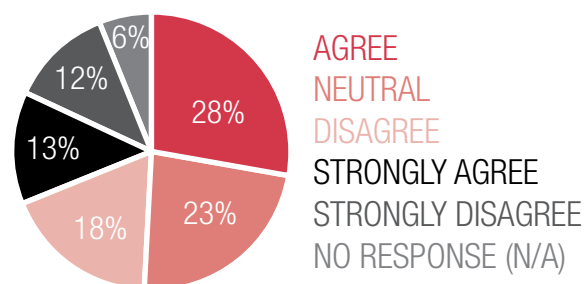


FIG. 8 I HAVE SOME SAY IN THE ADMINISTRATIVE PROCESS FOR TEACHING RESIDENTS AND CLERKS



#### d. Satellite campuses and Community sites

The implementation of “satellite” campuses in Canada has been accelerated by the need to expand the number of undergraduate students enrolled in our faculties. There are presently eight fully-fledged satellite campuses, and three being developed, as shown in Table 15. These campuses have varying degrees of autonomy, and varying relationships with the University ‘hosting’ the satellite location. In some instances, the presence of the host-university at the site where the satellite medical campus is located is seen as being of minimal importance; the undergraduate medical program is regarded as being rooted only in the parent University, although there is often a degree of collaboration in terms of facilities. In other cases, however, there is a much closer relationship between the parent University and that which hosts the satellite campus. In at least several instances it is clear that although the curriculum is determined by the parent University, there are very close relationships with the satellite University staff have appointments in both the satellite University and the parent university.

TABLE 1 SATELLITE CAMPUSES IN CANADA (FROM WEST TO EAST)

Location	University Affiliate	Year started
Victoria	University of British Columbia	2004
Prince George	University of British Columbia	2004
Kelowna (under development)	University of British Columbia	2009
Windsor	University of Western Ontario	2008
Kitchener	McMaster University	2007
St. Catherines	McMaster University	2008
Mississauga (under development)	University of Toronto	Opening 2011
Mauricie	Université de Montréal	2005
Chicoutimi	Université de Sherbrooke	2006
Moncton	Université de Sherbrooke	2006
Saint John (under development)	Dalhousie University	Opening 2010

Despite the diversity of structures, the two Associate Deans of satellite campuses that were interviewed were both appreciative of the extent and quality of the interaction with the parent University and described the administration as being supportive. The parent campus ensured that the curriculum was teachable in the satellite environment and provided appropriate learning aids. In general, the distributed campuses that provided information for this study were enthusiastic about being actively involved in the teaching of undergraduates rather than being merely recipients of the teaching provided by the parent campus. The issue of the degree of autonomy that can be effectively accorded to a distributed campus was raised, and there was some concern on the part of those teaching outside the academic health centre that the program might be seen as less professional or second class, even though this view was never expressed by anyone at any level in the parent university.

Learning sites in the community that would not usually be classified as part of the academic health centre play a major role in the training of residents and clerks<sup>6</sup>, and are sometimes also involved in the teaching of clinical skills or physician shadowing for students in the preclinical phase of their undergraduate curriculum<sup>7</sup>. Physicians who teach in these sites are usually designated “part-time” by the definition provided earlier in this

paper. Teaching is planned by a parent university and teachers are often organized into networks such as SWOMEN (South-West Ontario Medical Education Network)<sup>8</sup>, affiliated with the University of Western Ontario, or the RPAP (Rural Physician Action Plan), affiliated with the University of Alberta and the University of Calgary<sup>9</sup>.

Those teaching in the community were firmly convinced of the benefits of learning taking place at sites away from the main campus: “Students here learn what real medicine is like – they get a much broader education and see the sort of patients that they will encounter in the real world”<sup>10</sup>.

Students and residents were generally delighted with the training that they received at such sites, claiming that they saw more suitable patients and in most instances were welcomed and treated as part of the team. In some instances, clerks were taught at sites where there were no residents, and their reaction was mixed. The clerks understood that this deprived them of instruction by residents, but they also liked the fact that they were the centre of attention from the attending physicians.

A specific issue relevant to this section is the matter of integrated community clerkships. This approach involves an extended period of training at a community site where the core rotations are undertaken in an integrated fashion rather than as a series of discrete clerkships in the various specialties. The students who had participated in a clerkship of this type were very pleased with their experience. The Northern Ontario School of Medicine has adopted this strategy for all the third year students<sup>11</sup>, and has thus more experience than most other Faculties.

## 2) ISSUES RELATED TO RECOGNITION, REWARDS AND REMUNERATION FOR CLINICAL TEACHERS

While clinical teaching is clearly a cornerstone in the development of competent physicians, the mechanisms by which clinical teachers receive benefit from this important activity were the most prominent elements of discussions with clinical teachers and administrators. As one respondent concluded, the problems arise “because we never treated clinical teaching as a human resource management problem”. This issue proved to be one of the most contentious and contradictory of the issues investigated in the survey and interviews. There were four main components to this discussion, (a) monetary rewards (remuneration), (b) Alternative Funding Plans (AFPs), (c) Non-monetary rewards and other rewards experienced by clinical teachers as a result of their teaching activities, and (d) recognition by the universities.

### a. Monetary rewards

The Hippocratic Oath is often used as evidence to support the tradition of the cognitive apprenticeship model of teaching without remuneration for the instructor. In fact, however, neither the original form of the Hippocratic Oath nor its modern counterpart supports this assumption. Until fairly recently, only practicing clinicians who were also full-time members of the university staff received remuneration as a result of their teaching activities. Because part-time clinical teachers continued to perform their duties without complaint, administrators focused on other pressing issues such as the pre-clinical curriculum, research funding, improved accountability for professionalism, and interdisciplinary education. As the demands for clinical teaching increased with the rapid expansion of undergraduate programs, and as the list of potential disincentives for clinical teachers continued to mount, a climate of professional and personal unrest developed among some part-time instructors.

Policies controlling remuneration for clinical teachers vary significantly from faculty to faculty, department to department, and, even within the same department, from clinical teacher to clinical teacher. As a result, one can find some clinical teachers in a given department receiving no remuneration, with others in that same department receiving remuneration from multiple income streams. As one administrator stated: "I have staff in the community that I pay to teach... In the next office, there is sometimes someone who is taking students from a different University, one that pays more for the same job".

Of the survey respondents, 37% received payment through an alternative funding plan<sup>12</sup>, 31% received payment as an academic staff member, 26% received a stipend or honorarium from the university and 26% received payment on a fee-for-service basis for clinical care. Of the remaining respondents, 18% indicated that they received no payment and 9% answered "Other".

Some respondents were apparently unsure whether they received remuneration, while others explained that their remuneration went directly to the hospital and/or department, and not directly to them. Interpretation of these data is complicated by the fact that members of the full-time academic staff were disproportionately represented in the survey respondents. Most part-time staff receive some form of honorarium and stipend, rather than a full salary. Nevertheless, there were a substantial number of responses from all groups, and the full-time staff showed during the interviews that they are keenly aware of the issues that surround remuneration of their part-time colleagues.

When clinical teachers did receive remuneration, the amount they received varied widely. Annual remuneration was the most

frequently cited method, with scales of annual remuneration ranging from less than \$500 to \$160,000. Similarly, the scale of daily remuneration ranges from less than \$100 to a maximum of \$1,000. A variety of other units were identified for remuneration purposes including shift, lecture, or rotation, and these were also often reported to be based on the number of students supervised (i.e. a dollar amount assigned per student for each rotation).

"I feel like a waiter that has given really good service and been left a nickel as a tip."

Of the 210 survey respondents who answered "Other" as their source of income for clinical teaching, the majority added comments that indicated significant dissatisfaction with the remuneration provided; using terms such as "nominal," "trivial" or "insulting" to describe the payments. Some of the part-time teachers that were interviewed also felt this way; indicating that they felt that the reimbursement was inadequate given that the time taken to teach clerks and residents inevitably reduced the time for clinical service that is reimbursed at a much more lucrative scale.

### b. Alternative Funding Plans (AFPs)

*"This AFP is the single most important thing that has happened in ensuring that we have good clinical teaching".*

The majority of the respondents to the survey (mainly full-time faculty) received some or all of their income from an AFP, and during the interviews there was overwhelming support for this sort of arrangement from both administrators and clinical teachers. Alternative Funding Plans (AFPs), also called Alternative Remuneration Plans (ARPs), are arrangements whereby clinicians receive a salary in recognition of significant contributions to the academic and patient-care mission of the University. The decision as to whether to participate in an AFP is made by academic staff, but it also requires adequate financial support and the details of the AFP sometimes require delicate and/or protracted negotiation. There are a variety of different arrangements, some of which require that any additional remuneration received by the participant be returned to the AFP while others permit some additional income from fee-for-service or other activities. In cases where the development of an AFP had been delayed, this was generally regarded as unfortunate: *"I wish we could get moving on AFPs. It could make a real difference".*

It is unlikely that a universally-acceptable model of an AFP will be developed. There are often substantial differences in the operation of an AFP within different Departments or Divisions of the same university. While those involved in AFPs were generally pleased with the way their AFP was structured, a wide range of different plans was reported. As a general rule, it seems

that disciplines such as Family Medicine or General Internal Medicine tend to use an AFP in which the entire income must be derived from the plan, while the more lucrative specialties permit supplementation from other activities. Regardless, an AFP permits the individuals in the plan to structure their work so that they can pursue responsibilities in teaching or in research with less negative effects on their income.

### c. Non-monetary rewards

*"I want every doctor in the Province to teach, because it improves their practice".*

*"Its like having another pair of hands"*

Despite the widespread concern about reimbursement for clinical teaching, most part-time staff that were interviewed stressed repeatedly that "it is not about the money", and quite apart from the fact that this statement is supported by the literature, there are other reasons to believe that it is true. Even at the most generous pay scale reported, the income from clinical teaching is significantly less than the income from the same period of time devoted to clinical practice. Not surprisingly, the issue of the dollar amount was more important to those in the most lucrative specialties and less important to those in such specialties as Family Medicine, whose overall income is significantly lower.

If it isn't the money, what *does* motivate clinical teachers? The answers to this question provided by the survey and in the interviews confirm what is described in the literature regarding the motives for clinical teaching. Among the rewards listed, the most important was the opportunity to interact with learners, cited by 91% of the survey respondents. In addition, 59% saw interaction with clinical colleagues on aspects of teaching as a reward.

Opinion was divided as to whether senior trainees significantly rewarded the preceptor by assisting their practice. There seems to be no question that clerks consume time available for clinical service, and there was a general feeling that this was also true for early residency training. Although some of those interviewed suggested that involving senior residents in one's practice can actually save time, not everybody agreed that having a senior resident was actually helpful. The literature suggests that even senior trainees on the verge of independent practice still require a significant time commitment from the preceptor.

Several clinical teachers pointed out that their clinical teaching exposes them to new ideas and up-to-date information – it provides them a way of enhancing their own clinical practice by interacting with those who have the latest training.

These non-monetary rewards are intrinsic to the process of clinical teaching, and have been powerful enough to keep teachers involved for many years.

### d. Recognition by the university

The issue of recognition by the university is a third component that emerged from interviews and survey responses. The university has the potential to offer rewards for clinical teaching that do not involve direct remuneration, but are both of benefit to the clinical teacher and provide evidence that their work is appreciated. In one Faculty of Medicine survey that we are aware of, "respect" was a frequent answer to the question: "Other than monetary remuneration, are there other ways that you feel the faculty can reward your contributions as clinical faculty?"

In the interviews, the existence of teaching awards was often raised, and provided that the award is appropriately celebrated and the reason for the award is clear, the existence of such awards was often welcomed. One problem with teaching awards that was raised was that they may repeatedly recognize the same group of instructors: "It's always the same people that get the awards." The University of Washington solved this problem by designating a person who wins more than three awards as a "Master Teacher" who is inducted into a Teaching Academy, continues to be recognized at the annual ceremony, but is no longer eligible for the award itself.

The questions in the survey distinguished between rewards that were presently offered and those which would be appreciated, whether currently offered or not. In terms of rewards currently received, survey respondents identified the opportunity to develop teaching skills through faculty development (53%), access to the university library (43%), internet access via the university (19%), letters of recognition from the Dean (15%), and reduced university tuition for family members (13%) (although this last benefit is not usually available for part-time staff). Additional benefits mentioned include discounts at the university bookstore and university events.

In terms of those not currently receiving such rewards, survey respondents identified reduced tuition fees for family (30%) and access to the University library (28%) as the most desirable. The majority saw the following benefits as less important: access to the internet, a letter of thanks from the Dean, provision of a significant social event, a supply of university business cards and public recognition. It is worth pointing out that even for these less popular benefits, more than half of those responding rated them at least as "appreciated".

Another "benefit" that was regarded as important was promotion to higher academic rank. This involves determination of

suitability for promotion, and the process itself, a topic discussed in the next section.

The picture that emerged from the interviews was that clinical teachers, particularly those designated as part-time, felt that the university did not sufficiently demonstrate its respect or appreciation of the efforts that they make to help trainees develop into competent physicians.

### 3) THE NEED FOR ACCOUNTABILITY AND ASSESSMENT OF CLINICAL TEACHING

The issue of how clinical teachers are evaluated or assessed, investments in faculty development, and the process of making promotion decisions were three issues that emerged in the interviews and all relate to the broader topic of accountability and assessment of clinical teaching. The three areas are tightly inter-related; assessment of teaching performance ties in closely to the need for faculty development to improve performance that is assessed as less than optimal, and promotion is a reward for ongoing positive assessment of teaching.

While assessment of instruction in the pre-clinical curriculum is almost universal<sup>13</sup>, assessment of clinical teaching is much more variable<sup>14</sup>. The interviews suggested that the majority of faculties collect data on clinical instruction, but teaching on the wards is sometimes not assessed at all. Moreover, in about half of the faculties of medicine there was reported to be no uniform system for returning information collected regarding assessments to the instructor. Approximately 52% of the survey respondents indicated that they received regular feedback from students, but only 22% reported receiving similar feedback from their peers and/or administrators.

A number of challenges relating to the assessment of clinical teachers were cited:

- The resources required to collect and distribute the data are considerable. On-line approaches such as the One45 system<sup>15</sup> can be used, but the return rate was often described as poor.
- Written assessments of clinical teachers in cases where it would be obvious to the instructor which trainee provided the assessment was seen as compromising the credibility of the data. An arrangement whereby the student evaluates the instructor at the same time as the instructor evaluates the student was suggested to be the best way of doing things, but it was also pointed out that one perspective will probably influence the other. In some sites, data was accumulated until there were a sufficient number of returns for it to be difficult or impossible to identify any one respondent, but this is time consuming, and feedback is delayed.

- There was significant concern expressed that negative feedback may lead the instructor to decline to teach. It was felt that the entire system is so short of people that in some instances this is not a risk that the clerkship or program director was prepared to take.
- Despite the fact that the literature on assessment of teachers by students provides convincing evidence of the reliability and validity of this approach<sup>16</sup>, not all those interviewed were convinced of the value of the process.
- In some faculties, although the assertion was made by administrators that clinical teaching was evaluated, some instructors claimed that they had never received any useful feedback. It seems probable that in some instances, the data is collected but never finds its way back to the instructor.

Of more immediate concern to many survey respondents was how the information from the assessments would be tallied, who would view it, and how would it be used. In theory, assessments should be a learning tool for clinical teachers to improve their clinical teaching skills; however assessment of teaching is a sufficiently sensitive issue that a clear statement about the methods used to collect data, the distribution of the information and the consequences is needed.

Clearly the process of collecting assessments by trainees needs to be standardized. It is reasonable to use numerical ratings for summative purposes; in these cases, data needs to be seen by the Chair and the Dean, but it is possible to make a case that the narrative comments should only be sent to the instructor to whom they refer. Of course, instructors can, if they wish, share the comments with anyone they choose.

In addition to evaluation by trainees, peer evaluation is very desirable, although logistically more difficult. There is not a great deal of literature on peer evaluation of clinical teaching, but by analogy to more structured teaching, one can assume that at least some information can be gleaned by peer-review of exam questions, seminar hand-outs and slides, mini-CEX forms, and so on.

### 4) THE NEED FOR FACULTY DEVELOPMENT AND IMPROVEMENTS IN TEACHING FACULTIES AND PROGRAMS

For faculty assessments to have meaning and impact, systems of assessments must be coupled to systems designed to enable improvements. During the interviews, the issue of faculty development was frequently raised but there was a significant difference between what was described as the ideal situation and reality. Fifty-three percent of survey respondents listed faculty development activities among the rewards that were offered for clinical teaching, and fewer than 10% rated this as “unimportant”,

however, less than 30% of respondents reported regularly participating in such activities and although the majority who had attended such workshops found them helpful, only 9% answered “strongly agree” to the question: “The faculty development workshops in which I have participated were helpful”.

Those involved in the presentation of faculty development workshops that were interviewed uniformly held the view that those who attend such workshops tend to be those who are sufficiently self-aware and not in the greatest need of development. Conversely, they felt that those with teaching skills most in need of adjustment seldom attended. This is consistent with a recent paper by Yvonne Steinert (2009).<sup>17</sup>

As a result of the interviews, it became apparent that the problems relating to faculty development could be divided into those relating to concept, logistics, workload and perspective.

## a. Concept-related issues

Clinical staff made it clear that issues of working with difficult residents, providing feedback to clerks or juggling clinical service and educational activities are much more important to them than issues such as honing presentation skills, although they reported that the latter is often the focus of the workshops on teaching. Faculty development was described by those interviewed as being most successful when it relates directly to the life of the clinical instructor. It was felt that there is often insufficient feedback to instructors about what students require, making faculty development a generic exercise - which is less valuable than a more personal consultation, based on specific needs.

## b. Logistical issues

It is often challenging for full-time staff to find the necessary time away from their clinical practice to develop their teaching skills. In the case of the part-time staff, it is essentially impossible. Any program which assumes that participants can be available for workshops that take two entire days is unrealistic. Even if the clinician is prepared to forego the financial advantages of two full days of clinical practice in order to improve their teaching, organizers of teaching workshops need to recognize that clinics are planned well in advance, and physicians are reluctant to re-schedule: *“I hear about the workshops only a couple of months before they are held, and my days are planned long before that. But it does not matter, because they last two days and I cannot spare that amount of time anyway.”*

Cancelling a clinic is not only financially problematic, but also inconvenient to patients and detrimental to the effectiveness of the doctor-patient relationship. In addition, if the faculty development process takes place in a geographically distant location from the clinical practices of participants, it can be difficult to attract

registrants. Some faculties have begun to use videoconferencing with some success to deal with this issue.

Increasingly, two strategies were described to deal with the problem. The first is to send the team responsible for faculty development to sites where the teaching takes place. This is sometimes across town, and sometimes many kilometers away, but in terms of cost, public relations and effectiveness, it is clearly beneficial; both organizers and recipients of courses made this clear in the interviews. A potentially unstable relationship between a clinical teaching site and the University can be exacerbated if those in the distant site feel that they always have to come to the university to receive attention. The second strategy is to time workshops to suit the needs of clinical teachers (e.g. evenings or weekends).

## c. Workload-related issues

Most clinical teachers realized that they could teach more effectively with some help, but faced with increasing demands for clinical service, enthusiasm for faculty development activities was limited. This was very clear from the survey responses. This problem was exacerbated by the fact that faculty development was sometimes offered only after the commitment to clinical teaching had been made, leaving the instructor with a sense that attending these sessions was optional.

On the positive side, a number of universities have implemented strategies to encourage professional development. Some pay their clinical staff on an hourly basis for attending faculty development workshops, and in other cases, the demands on busy clinicians are attenuated by making faculty development part of a continuing medical education event, where they can update their clinical knowledge and skills in conjunction with opportunities to meet and network with other professionals.

## d. Perspective-related issues

While clinical teachers closely associated with medical education take faculty development as an unquestioned necessity, this view was by no means universal: *“I may get a few additional tips, but I pretty well know what I’m doing. The students don’t complain, anyhow.”* There is a very widespread view that teaching ability is innate, that *“You either have it or you don’t”*, and that it cannot be developed in those who don’t have it. Moreover, it is often felt that if you are a content expert, you will inevitably be able to teach the material successfully. One senior medical educator was of the view that the prevalence of this attitude was the single most important reason why clinical teaching was sometimes less than effective. One might suppose that if there was a robust assessment process, clinicians would come to realize that their abilities as physicians are not necessarily correlated with their

teaching abilities. The ignorance that gives rise to the illusion that content expertise is all that is needed for teaching often extends to cynicism about student opinion, making it easy to ignore this sort of feedback.

Despite these challenges, most faculties have programs of faculty development which are usually available to both full-time and part-time staff and are generally adequately funded. As already stated, the most important challenge is that those who are most in need of the wisdom provided almost never attend, and programs end up making good teachers better, rather than rescuing poor teachers and making them more competent.

## 5) SALARY AND PROMOTION

Five major elements were identified from the project interviews that were seen as essential for an equitable system of salary and promotion decisions for clinical teachers: (1) Accepted standards of adequate performance, (2) Systematic review of the performance of the academic staff (3) Mechanisms for rewarding excellence, which can reasonably be applied when appropriate evidence is presented, (4) Structured and effective means of providing assistance to those whose performance is sub-optimal, and (5) Options for sanctions against those whose performance is consistently sub-optimal.

Currently, no medical school in Canada has fully developed all five criteria, with numbers four and five being the most frequently absent or inadequate. A number of faculties have adopted either a specific “teaching track” or have instituted a system of promotion based on satisfactory performance in all areas and excellence in one or more, teaching being one such area.<sup>18</sup> Others have made statements about the need for educational scholarship in terms of the criteria outlined by Boyer, but staff was often unclear what this meant in practical terms.<sup>19</sup>

Essentially every senior administrator felt that in his or her University there was an effective system in place for promotion for those whose primary contribution to the academic mission was in education, and most Universities could name people who had been promoted to the rank of professor primarily on the basis of their teaching. That being said, these administrators agreed that the number was small compared to those promoted on the basis of research productivity. While both teaching and research excellence is required for promotion, the point was frequently made that there is a general cynicism about the process of evaluating teaching and a possibly unwarranted confidence in the ability to judge research. There was some resentment among full time staff arising from their perception that the metrics of teaching performance were insufficient to sway committees composed mostly of those whose status had depended on their research productivity. This translated

into the impression that often excellent researchers with teaching skills that were lacking were far more likely to be promoted than excellent teachers lacking research skills.

While the perception of the importance of promotion for part-time clinical faculty varied widely, for full-time staff, it was an issue of considerable importance, both in terms of status and salary. Quite apart from the barriers that may be encountered as the instructor transitions between Assistant and Associate Professor and Associate and Full Professor, there is also the question of salary within that rank. In a significant number of Universities it was reported that once Full Professorship has been reached, it only becomes possible to take action against incompetence under circumstances where the professor has demonstrated a flagrant and persistent disregard for his or her responsibilities or has been involved in some specific incident in which there was a clear breach of accepted behavior. The presence of a strong Academic Staff Association or Union was sometimes cited as a contributing factor to the difficulty of taking action against those deemed to be incompetent.

Those who reported looking for promotion on the basis of educational activities were often far more cynical about the situation than administrators: “*They SAY that teaching is recognized, but really it is not.*” Although the project interviews were primarily with clinical teachers, rather than those teaching in the pre-clinical program, it seems probable that the difficulties are more acute in the case of the clinical staff. Clinical teaching involves a greater amount of administration and more challenging logistic difficulties than lecturing or tutoring in the pre-clinical curriculum, and there is less likely to be an effective system for evaluating teaching in place. Many instructors were not clear about what was expected of them, and often had either failed to read the guidelines for promotion or failed to understand their implications. Even in the majority of faculties that require a teaching dossier or teaching portfolio in the documentation for promotion, there was often no clear guide as to what should be included.

Another issue surrounds the case of full-time staff members who, while perhaps distinguished teachers, have taken enormous pains to make a clerkship or residency program successful. Comments such as: *I have trouble persuading people to become program directors. It is a lot of work, and it seems that the work is largely unrecognized* “were made at several sites. This sort of administrative load is very significant, but it appears that recognition by promotion committees is less frequent, and if the individual fails to be promoted, the resultant bitterness on the part of the instructor can damage morale and make it even more difficult to persuade others to conduct the necessary administration.

## a. Promotion issues around clinical teaching - part-time staff

Most part-time staff members have an assigned academic rank and are eligible for promotion, but the process and significance are quite different from the situation with full time staff. Rank can be decided by the Department Chair rather than a Faculty or University committee and the criteria are often vague: *"Promotion to Associate Professor depends on teaching hours and how long they have been doing it. Promotion to Professor is rare, and depends on their professional stature – things like that..."* Some part-time staff are concerned about the need to provide extensive documentation before promotion is considered, but in many instances it makes almost no difference in status or in income. Comments varied from: *"I guess it would be nice to be promoted – I'd like that"* to *"It makes no difference – I never even think about it."* This means that one of the major rewards for full-time staff has much less significance for part-time staff. It does not mean that the concept needs to be abandoned, but it may need to be standardized across the Faculty and its significance needs to be made absolutely clear.

## 6) OTHER MODELS OF CLINICAL TEACHING

### a. Residents as teachers

Survey answers regarding the use of residents as teachers suggested that this was not an overwhelming problem although some adjustments were identified as desirable. The extent to which residents teach, and how they are remunerated was reported as varying from department to department. In some cases residents are remunerated for teaching activities, while in others they are not compensated. In these latter cases, teaching is described as an activity that is an intrinsic part of residency training.

According to LCME accreditation standard ED-24, when residents teach undergraduate students, there must be suitable preparation of the resident-teacher. From the perspective of many of the residents interviewed, however, the preparation is often minimal, inappropriate or both. Nonetheless, clerks report that residents are often excellent teachers and spend a great deal of time with them: *"I see more of the resident on service than I see of my preceptor"*.

It was striking that in the interviews, even in universities where the residents felt that they were adequately prepared for their teaching activities, resident teaching was reported to have never been systematically observed by their preceptor, and feedback about teaching activities had never been provided to the resident. A clear statement of teaching responsibilities and the role of teaching in future clinical practice had never been made explicit to any of the residents interviewed, and indeed their attitude to teaching was ambivalent. When the interview was with one or two

selected residents the view was usually expressed that teaching was enjoyed and a source of pride. *"I love teaching – I hope to make it a big part of my future career"*; however when a larger group was interviewed, this perspective was not universal.

### b. Involvement of other health professionals

In some universities, nurses had been hired to provide clinical training for undergraduate medical students, and this was seen as effective, appreciated by students, and as providing a realistic demonstration of effective collaboration between the professions. These nurse-instructors were treated as full members of the Faculty; they were remunerated and their performance was assessed. Despite the widespread interest in inter-professional education, respondents to the survey did not see this as an area that needed attention. Seventy-one percent stated that the situation was satisfactory or required only minor changes. Whether this reflects a situation in which inter-professional education has become a normal and integrated part of clinical teaching, or whether the problems have simply escaped the attention of those responding to the survey, is not clear.

### c. Alternative Teaching Practices

As a result of advances in the pre-clinical curriculum and added pressures on clinical teachers, alternative teaching practices are emerging. The teaching of clinical skills (history and physical examination) is usually conducted in the pre-clinical curriculum, although instructors are nearly always practicing physicians. There is a significant lack of published research in the area of clinical skills teaching, and this area has not been a major focus of this report, partly because it represents a subset of clinical teaching, albeit an important one, and partly because it became apparent during early interviews with pre-clinical students and clerks that the teaching was generally done well. There is an effective network of clinical skills teachers across Canada; problems appear to arise mostly in terms of recruiting a sufficient number of staff to have student groups of a workable size: *"One teacher did not show up so we had their students in our group – there were about twenty people trying to learn a physical examination skill and I couldn't see, and had no chance to practice."* The issue of recruiting staff for clinical skills teaching is a little more complicated than recruiting for clerkship or resident supervision in that it requires dedicated time without a clinical service component, and thus represents an unequivocal loss of clinical income. As a result, these instructors are often drawn from the corps of full-time staff and a number of the organizers of the clinical skills programs complained that it was difficult to persuade their colleagues to participate.

Teaching clinical skills used to be conducted on real patients on the wards, but it is now more often practiced using

standardized patients, or real patients who are brought to a specific clinical skills training centre. These types of centers, which include examining rooms, waiting rooms, and appropriate teaching aids, have been constructed (or are being constructed) at many Universities. These are sometimes combined with simulation laboratories involving appropriate manikins, models or full-scale human simulations. Such facilities also find service as sites for OSCE examinations.

Quite apart from the appropriate use of simulation, a variety of other strategies are being developed for improved teaching and learning. Improvements in technology have substantially enhanced the ability to conduct real-time distance education, learning systems software has been developed at a number of sites for managing and enhancing student learning, and there is an increasing interest in the use of personal digital assistants (PDAs), podcasts and similar strategies. There is also an increasing discussion of competency-based education, although the concept of developing programs based on competence rather than exposure time remains controversial. In view of the present stresses in the system for the clinical education of clerks and residents, it is important that an evidence-based assessment of novel approaches to clinical teaching be conducted.

## 7) THE BROADER PERSPECTIVE – CLINICAL TEACHING, GOVERNMENT AND UNIVERSITIES

### a. External interactions

In addition to clinical teachers, there are a number of other stakeholder groups with complementary and competing agendas. Provincial Governments, through Ministries of Health and Advanced Education, determine the number of students and, to a significant extent, the environment in which clinical teachers will practice as well as funding strategies to support students and teachers. Provincial medical associations have the mandate to advance and maintain the interests of clinical teachers in the context of patient care.

The Faculty administration in a number of sites had concerns that Provincial governments sometimes engage in a decision-making process without recognizing the impact of their decisions on the medical education system. For example, the PREM (Plans régionaux d'effectifs médicaux) program in Québec is designed to provide a more uniform distribution of healthcare in the Province, but has resulted in significant and unanticipated consequences for medical education such as a shortage of clinical teachers in certain disciplines and regions.

According to the literature, and reinforced by survey respondents, is the fact that a “major problem is the lack of a common entry point for discussions” about the necessary resources for clinical teaching. In many provinces, undergraduate medical education falls under the authority of the Ministry of Advanced Education, while residency training falls under the Ministry of Health. Where there is a communication breakdown between the ministries, universities are forced to engage in separate and potentially conflicting relationships in the process of negotiating equitable solutions.

### b. Increases in undergraduate enrolment

Canada now boasts one of the largest undergraduate programs in North America at the Université de Montréal<sup>20</sup>; and there has been an escalation in student enrolment at all sites across the country<sup>21</sup>, resulting in stresses on personnel, funding, and the delivery of the curriculum. There has also been an increased demand for direct patient care, thus teachers have been faced with competing demands for their time. This potentially discourages new clinical teachers from joining the system, and has led those who presently have a significant teaching role to question their on-going participation.

In fact, the most frequently-cited problem that was raised in this study was the failure to anticipate the ramifications of increasing the size of undergraduate programs. These ramifications were identified as insufficient funding, a lack of understanding about the issues surrounding distributed campuses and community sites, and a disconnect between the increases in the size of undergraduate programs and the availability of residency positions.

### c. Perspectives of the teaching staff about the role of government

When instructors (vs. administrators) were asked about the issues surrounding clinical teaching and the role of government decisions, a broader perspective emerged. There was the explicit view that the entire system needed to be reviewed, and that improved efficiency of health care delivery, appropriate use of the other health professions and a reduction in the demands on the practitioner for such things as paperwork would be at least as useful as measures to increase the number of students enrolled in programs, and would enable the clinical teachers to devote more time and attention to their students. *“Our patients need better health care, and producing more doctors is only part of the answer”.*

There was an impression that the instructors themselves had played almost no role in deciding issues such as capacity. The question was also raised as to whether there would be

jobs available for the increased number of graduates in some subspecialties. It was suggested that those physicians who had already established themselves and developed lucrative practices might be less than enthusiastic about sharing their practices with those who were newly qualified.

Overall, there was a general sense that there needs to be a more effective and transparent dialogue between those responsible for the funding of medical education and those entrusted with the practice of training future physicians. The teachers themselves felt that although the consequences of the decisions had a substantial influence on their teaching practice, they had little or no input into the decision-making process.

#### **d. Communication in the clinical teaching environment**

In spite of sharing a common mandate to educate future physicians, each faculty has a unique history and character resulting from its location, politics, traditions and leadership. Within each faculty, these factors shape the personalities of departments, divisions, clinical teaching sites and instructors. The challenge is to develop an approach to connect stakeholders on issues of common interest while respecting the individual nature of each unit.



## III. Project Recommendations

Based on the literature review and the analysis of survey responses and interview data, the following recommendations are offered for consideration:

### 1. COLLABORATION AND A NATIONAL INVENTORY OF EXEMPLARY PRACTICES

Structures should be created that enable multiple levels of interaction and collaboration relating to clinical teaching. This would include interaction among Deans and Associate Deans, clinical instructors themselves, as well as educators and funders of medical education from across the country. These structures would provide a forum for ongoing discussions relating to clinical teaching in Canada. Moreover, a national inventory of exemplary practices should be resourced, covering all areas relevant to clinical teaching. In addition, a mandatory introduction to clinical teaching, based on these exemplary practices, should be developed for new instructors.

### 2. DISTRIBUTED LEARNING/COMMUNITY SITES

The clinical curriculum at distributed sites should be developed with significant and regular input from clinical teachers at distributed sites. There should be clarity in terms of the objectives, outcomes, and competencies that should be achieved by students. Distributed sites also require more resources and administrative support to become full partners in the clinical teaching endeavor.

### 3. THE ROLE OF THE CLINICAL TEACHER

Universities should make expected teaching contributions clear to instructors in clinical teaching programs at least a year in advance, and these expectations should not include logistical issues such as parking, transportation, and space. Where teachers are expected to play an administrative role, adequate infrastructure support should be provided.

### 4. REMUNERATION

Alternative funding plans (AFPs) should be in place in all units and the income derived from them should be equitably distributed and form a significant part of the total income for the clinician-teacher.

### 5. RECOGNITION

Recognition for clinical teaching should include both ongoing public acknowledgement of the important contribution of clinical teaching as well as appropriate financial reimbursement.

### 6. CLERKS AND RESIDENTS

Before beginning their clinical training, clerks and residents should be given clear instructions as to appropriate behavior during the clinical learning experience. They should be given guidance regarding ways to make the experience more rewarding for themselves and teachers. In addition, it should be made explicit to clerks and residents that teaching the next generation of doctors is an intrinsic part of clinical practice, and is expected of every practicing clinician. Educational development for residents should be required and geared to the roles that the resident will have as an instructor. Preceptors should be encouraged to watch their residents teach and provide appropriate encouragement and feedback. This process of direct observation should form part of the assessment of the overall performance of the resident.

### 7. ASSESSMENT

There should be a centralized, transparent, standardized and timely process in each faculty whereby students, residents, and peers have an opportunity to provide anonymous written feedback to instructors.

### 8. CONTINUOUS FACULTY DEVELOPMENT

Faculty development should be presented as an intrinsic part of functioning as a clinical teacher, rather than as an option. As such, for clinical teachers with teaching experience, there should be a requirement for periodic refresher courses in teaching. These courses should take place close to sites where teaching occurs, particularly where sites are in distributed locations. They should also occur at a time and for a duration that is convenient for those in clinical practice, and focus on the practical aspects of helping clerks and residents to learn.

### 9. SALARY AND PROMOTION DECISIONS

For those whose career depends on academic advancement, promotion criteria must be clear, widely available, and place an appropriate emphasis on education and associated administration. These criteria should be discussed with the instructor by the Chair or his/her delegate on an ongoing basis. Universities should also strive to provide rewards for clinical teaching staff whose teaching excels, and consider means by which pressure can be brought to bear on those whose teaching performance is substandard.

### 10. INNOVATION IN CLINICAL TEACHING

Faculties of Medicine should be encouraged to make greater use of innovations such as new and emerging technologies and new pedagogical approaches to clinical teaching. As well, models of clinical teaching that incorporate non-medical instructors should also be explored.



## (Endnotes)

- 1 Association of Canadian Medical Colleges. Canadian Medical Education Statistics 2008:30-39
- 2 Luc Côté (Université Laval) ; Martine Chamberland (Sherbrooke) ; Bernard Charlin (Université de Montréal) ; Carol-Ann Courneya (University of British Columbia); Bruce Fisher (University of Alberta); Mark Goldszmidt (University of Western Ontario); Karen Mann (Dalhousie University); and Linda Snell (McGill University)
- 3 In consultation with the British Columbia Medical Association (BCMA), the University of British Columbia did not distribute this questionnaire to clinical teachers at that University. This decision was based on the fact that in 2006, the members of the clinical staff had received an in-depth survey on similar content, the results of which were kindly made available to this AFMC study. Additionally, a further survey on this issue from the BCMA is planned for May of this year. It is clearly undesirable to subject the clinical staff to a succession of surveys that collect essentially similar information. The Dean and members of clinical teaching staff met with the principal investigator in this study, and their views have been included in the appropriate sections of this report. Mention is also made of the results of the 2006 survey at the University of British Columbia in the discussion. Thus the views of the Faculty Administration and of the instructors at the University of British Columbia have been given due weight in this report. Issues of Clinical Faculty engagement have been an issue of high priority and attention for the Faculty of Medicine at the University of British Columbia over the last three to four years because of the doubling of the size of the medical undergraduate class and its distribution across the province, requiring attraction, engagement and retention of new and experienced clinical teachers.
- 4 For readability, percentages have been rounded off to the nearest whole number. More precise percentages are provided in the tables associated with each survey question.
- 5 Information supplied by the Association of Faculties of Medicine of Canada and the Medical Council of Canada
- 6 For example, Chaytors RG, Spooner GR. Training for rural family medicine: a cooperative venture of government, university, and community in Alberta. *Acad Med.* 1998 Jul;73(7):739-42.
- 7 Dornan T, Littlewood S, Margolis SA, Scherpbier A, Spencer J, Ypinazar V. How can experience in clinical and community settings contribute to early medical education? A BEME systematic review. *Med Teach.* 2006 Feb;28(1):3-18
- 8 <http://www.swomen.ca/> Accessed on 23<sup>rd</sup> March 2009
- 9 <http://www.rpap.ab.ca/> Accessed on 23<sup>rd</sup> March 2009
- 10 Comments in quotation marks are remarks by respondents during interviews.
- 11 Rourke JT. Building the new Northern Ontario Rural Medical School. *Aust J Rural Health.* 2002 Apr;10(2):112-6
- 12 For details, see Canadian Institute for Health Information (CIHI). Physicians in Canada: The Status of Alternative Payment Programs, 2005-2006. Accessed January 1, 2009 at. [http://secure.cihi.ca/cihiweb/products/AltPay2005\\_2006\\_e.pdf](http://secure.cihi.ca/cihiweb/products/AltPay2005_2006_e.pdf)
- 13 Abrahams MB, Friedman CP. Preclinical course-evaluation methods at U.S. and Canadian medical schools. *Acad Med.* 1996 Apr;71(4):371-4
- 14 Beckman TJ, Ghosh AK, Cook DA, Erwin PJ, Mandrekar JN. How reliable are assessments of clinical teaching? A review of the published instruments *J Gen Intern Med.* 2004 Sep;19(9):971-7
- 15 <http://www.one45.com/> Accessed on 23<sup>rd</sup> March, 2009
- 16 Murray HG Low-Inference Classroom Teaching Behaviors and Student Ratings of College Teaching Effectiveness. *J Ed Psych* 1983 Feb;75(1) 138-49
- 17 Steinert Y, McLeod PJ, Boillat M, Meterissian S, Elizov M, Macdonald ME. Faculty development: a 'field of dreams'? *Med Educ.* 2009 Jan;43(1):42-9
- 18 Glick TH. How best to evaluate clinician-educators and teachers for promotion? *Acad Med.* 2002 May;77(5):392-7.
- 19 Boyer, E.L. (1990). *Scholarship Reconsidered: Priorities of the Professoriate*. Princeton, N.J.: The Carnegie Foundation for the Advancement of Teaching.
- 20 Association of Faculties of Medicine of Canada. Canadian Medical Education Statistics, 2007 29:15
- 21 Association of Canadian Medical Colleges. Canadian Medical Education Statistics 2008:30-39



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