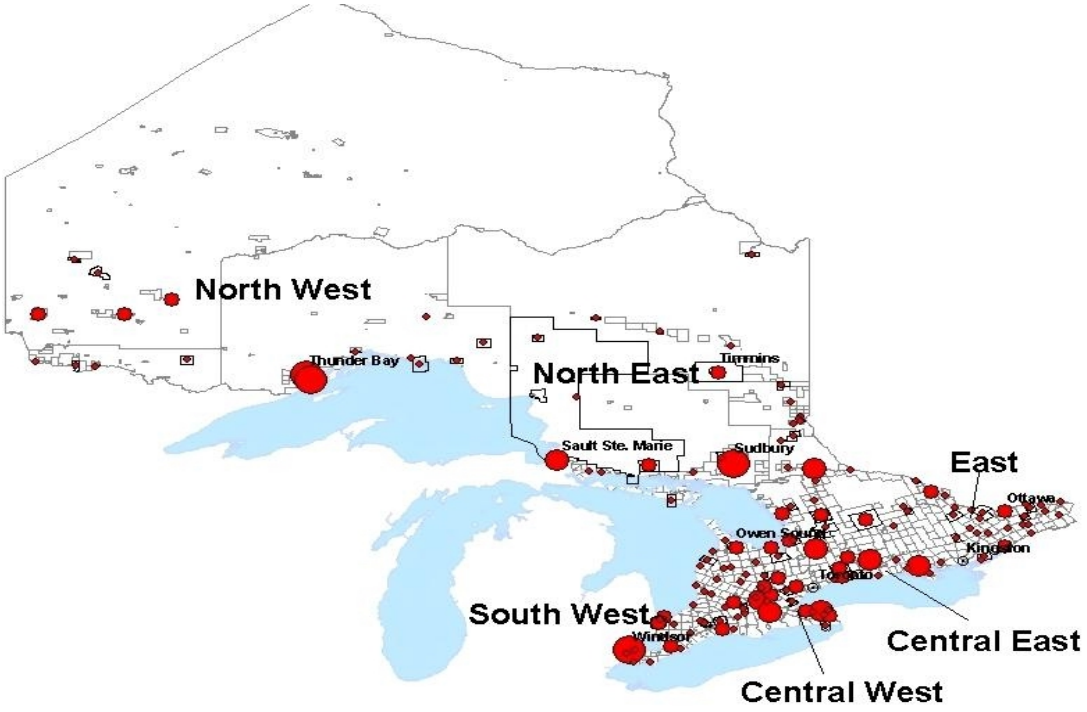
FACULTY DEVELOPMENT NEEDS OF ONTARIO RURAL PHYSICIAN PRECEPTORS



FINAL REPORT

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EXECUTIVE SUMMARY

All six of the medical school across Ontario, provide the opportunity for medical students and residents to learn in community-based placements. This move towards distributed medical education is in response to the shifting emphasis in care from inpatient to ambulatory, community-based services. As well, the steadily increasing number of learners over the past few years has resulted in a requirement for additional learning opportunities. Clearly, the effectiveness of the community-based physicians as teachers or preceptors contributes to the quality of the learning experience in the community. Therefore, it is critical to ensure that the needs of community-based preceptors for faculty development are met. The purpose of this study was to identify community-based preceptors' needs for faculty development and to make recommendations as to how to best address those needs.

The report begins with an overview of the literature regarding faculty development for community based physician preceptors. The literature is organized according to a variety of themes e.g. motivation to teach, formats for faculty development, incentives to attend faculty development. The consistent message stemming from the review of the literature is that is that there is no one ideal way to provide faculty development to community-based preceptors. Rather, faculty development must encompass a combination of approaches in order to meet the diverse interests and needs.

In order to establish the boundaries for data collection, the review of the literature also included an investigation of "rural" versus "community". An accepted, standard definition of rurality does not appear to exist. Application of an index of rurality, which combines a variety of components in order to rate individual communities on a scale of rurality, identified the North East and North West parts of the province as being the most rural. Focusing specifically on the needs of this group, however, would have limited the scope, strength and utility of the study. Consequently, data collection for the study included all community-based preceptors as defined by those physicians who are not specifically employed through an academic health centre.

A variety of data collection methods were used including a questionnaire sent out to all community-based physician preceptors and conducting focus group discussions

with a representative population of preceptors from across the province. Three priority topic areas for faculty development were identified:

1. providing effective feedback,
2. time-efficient precepting, and
3. characteristics of effective teachers.

Consistent with the review of the literature, however, preference for one specific venue for faculty development did not emerge. Rather, participants expressed a desire for a selection of different delivery formats. Two requests emphasized by the community-based preceptors were the need for a core program of faculty development and an on-site system for responding to the needs of community-based preceptors for faculty development. These findings were taken into account in the creation of the recommendations.

The need to work together on faculty development was identified as a key strategy by both community-based preceptors and those responsible for providing faculty development. This was in response to ensuring a coordinated, rather than competitive effort, given the increasing need and demand for community-based preceptors. Additionally, sharing of strategies and resources was seen as a way to best respond to the ongoing need for faculty development. Indeed, the establishment of a provincial group to address the coordination of Faculty Development for Distributed Medical Education is presented as the first recommendation. Additional recommendations for faculty development of community-based preceptors are:

- The creation of a core program
- The development of an orientation program
- The establishment of an on-site system
- The review of the learners' evaluation system
- The appropriate compensation for loss of clinical time
- The integration of teaching skills throughout the medical curriculum

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INTRODUCTION

Recent changes in the Canadian healthcare system are currently transforming medical education. Traditionally university-based, medical training now extends into smaller communities. This reflects the increasing recognition of the importance of community-based health services, and of the need to expose medical students early in their training to community practice to favor their recruitment. The provincial shortage of physicians also forces all six Ontario medical schools to substantially raise their student enrollment in response to government efforts to improve health-care access. The increased number of learners combined with a greater emphasis on community-based learning mandate a larger number of community sites for clinical placement.

All Ontario medical schools have now embarked on a distributive model of clinical education for undergraduate and postgraduate learners, where clinical teaching happens not only at university-based sites but also in smaller communities. The need for faculty development activities that address the specific concerns of community-based faculty is increasingly recognized.[1] Prior published papers on faculty development programs for community preceptors present tips to successfully implement educational activities for community preceptors[2-6], describe existing programs and their success[1,6], and discuss the acceptability of various delivery methods and formats for faculty development activities[6,8-11]. The majority of these articles focus their efforts on a single medical discipline such as Internal Medicine[12] or Family Medicine[4,6,13].

Distributive education in Ontario is fairly new. All six medical schools are individually working at designing and implementing education activities for their community-based faculty. The May 2005 report of the Undergraduate Education and Distributed Medical Education Committees at the Council of Ontario Faculties of Medicine emphasizes the need for collaborative work in faculty development.[14]

In October 2005, the Ministry of Health and Long-Term Care contacted the Council of Ontario Faculties of Medicine to manage a project related to preceptor development for rural physicians. The project's objectives were to (1) identify the needs related to educational skills development resources required by rural physician preceptors, (2) identify and catalogue existing rural physician preceptor development resources, in particular those applicable to rural practice settings, (3) conduct a gap analysis of existing resources and propose needed resources and tools, and (4) to develop

recommendations for new resources to fill identified gaps consistent with the needs identified by rural physicians.

The Offices of Faculty Development, Health Sciences Education, and Regional Education at Queen's University conducted the project. A preliminary report was submitted on March 31st 2006. This is the final report of this project.

METHODS

Several data collection methods were employed in this project; they were specifically selected to address the different objectives of the project and to triangulate the data. These methods comprise the following and are detailed below:

1. a comprehensive literature search on existing development resources for rural physicians;
2. an extensive search of Web pages addressing rural physicians development needs;
3. a questionnaire to each Ontario medical school and rural program surveying their current regional education situation and anticipated needs;
4. follow-up interviews with distributed medical education (DME) directors and education deans at each Ontario medical school, and with each rural program director;
5. survey of presently active community-based physician preceptors;
6. focus groups with preceptors (family physicians and Royal College specialists) at each school and program;
7. a working meeting of DME directors, education deans from each Ontario medical school, and rural program directors or their delegates.

1. Literature Search

An extensive literature search was conducted looking at several aspects of faculty development for community preceptors. More specifically, preceptors' teaching motivations and barriers, and their preferred methods and formats of faculty development sessions were examined. Factors linked to successful development sessions were extracted from the available studies and are presented in this report.

MEDLINE 1966-November 2005 and PSYCHInfo databases were searched using the following terms: 'community preceptors', 'rural health services', 'hospitals, rural', 'rural health/ or rural medicine', 'competency-based education', 'education, medical', 'staff development', 'faculty, medical/ or faculty development'. These terms were looked up individually and combined in various ways. Searches were limited to English language. References of pertinent papers were then searched manually for relevant publications. This was repeated until no new resource was found.

2. Web Page Search

This search was performed by a health informatics librarian from Bracken health Sciences Library at Queen's University Health Sciences Library, with extensive experience in Web page searching. Google and Yahoo engines were used to search the following terms: 'rural medicine education', rural preceptors teach', 'rural preceptors teaching tips', teaching improvement programs community preceptors', 'preceptor handbook rural teaching', 'help community preceptors teach'. Searches within the identified pages were also conducted, and suggested links were visited to retrieve more Web pages. This material forms the basis for a web-based resource for individual and groups of community preceptors and for faculty development directors.

3. School and Program Questionnaire

A questionnaire was sent to the DME office of each Ontario medical school and to the director of each Ontario rural medical program (Eastern Regional Medical Education Program - ERMEP, South Western Ontario Medical Education Network - SWOMEN, Rural Ontario Medical Program - ROMP). The questionnaire is presented in Appendix 1. The questionnaire asked for the number and location of community preceptors used by that school or program, whether certain listed faculty development events currently existed at that school or program, and the anticipated need for these events. The questionnaire also explored how preceptors were recruited, the incentives and rewards offered to community preceptors, the emphasis of community-based placements in the undergraduate and postgraduate curricula, the different methods in place to assess the needs of community preceptors for faculty development activities, and the means by which evaluations of their teaching were fed back to preceptors.

Respondents were also asked to estimate the anticipated change in their need of community preceptors over the next two and five years.

As indicated on the questionnaire, given the lack of a consistent definition of rural, the questionnaire addressed the needs of *community-based preceptors.* Community-based preceptors were defined as "physicians whose primary responsibility is to provide patient care in a community setting and who have agreed to provide education as an additional function to their patient care responsibilities." In addition, community-based preceptors may be provided a stipend but are not directly employed by the university medical school.

Once the data collection has been completed, the Rurality Index for Ontario (RIO) published by the Ontario Medical Association in 2000 was applied to factor in the aspect of rurality as it relates to the needs for faculty development.[15] The RIO is a continuous measure of the degree to which a community is rural (as opposed to a dichotomous distinction). It is based on the following 10 components: travel time to nearest basic referral centre, travel time to nearest advanced referral center, community population, population to general practitioner ratio, number of active general practitioners/family physicians in the community, presence of a hospital, availability of an ambulance service, social indicators, weather conditions, and selected services (e.g. obstetrics, anesthesia). Each of Ontario 710 municipalities with a population of over 500 has been assigned a RIO. RIO ranges from 0 (least rural) to 100 (most rural).

Our study data was imported into a geographic information database and maps were generated showing the distribution of preceptors across Ontario as well as their distribution in relation to their practice community RIO. To illustrate the concept more concretely, the RIO is provided here for a few communities in each provincial region:

- central east region: Toronto (RIO 7), Hastings (RIO 56)
- central west region: Hamilton (RIO 4), Mount Forest (RIO 48)
- east region: Ottawa (RIO 6), Raglan (RIO 75)
- north east region: Moosonee (RIO 100), Sudbury (RIO 12)
- north west region: Thunder Bay (RIO 13), Sioux Lookout (RIO 84)
- south west region: London (RIO 3), Lindsay (RIO 72)

4. Follow-up Interviews

Follow-up interviews were scheduled with each DME office and with each Ontario rural medical program director to explore each question of the questionnaire in more detail.

5. Community-based Physician Preceptor Survey

A mail survey was sent to a representative sample of currently active Ontario preceptors. To ensure an adequate sampling of the province of Ontario while minimizing preceptor overlaps between schools and programs, two of the three provincial programs (ROMP and SWOMEN) and the Northern Ontario School of Medicine (NOSM) Northeast (NE) and Northwest (NW) campuses were asked to identify all preceptors within their region, who taught for at least one month in the previous year. Preceptors from ERMEP, Queen's University and the University of Ottawa were surveyed in the spring of 2005 and these results are included in the current report. A letter signed by the school DME director or by the rural medical program director invited preceptors to complete the survey (Appendix 2). The invitation letter included an incentive in the form of a $5 Tim Hortons voucher or a $5 bill for preceptors located in areas without a Tim Hortons. The initial invitation was followed by two reminders, at one-week intervals. To further favor our response rate and speak to preceptors' sense of belonging to their community, the NOSM and both programs agreed to administer the invitation and reminder mailings and to collect the survey responses. Preceptors were asked to either fax or mail their survey responses to the school or program office that then couriered them to the project investigators at regular intervals.

The survey examined the teaching experience of these community preceptors, the different barriers they faced in teaching, their level of interest for listed faculty development programs and for videoconferenced rounds in their specialty, and inquired about their preferred methods, formats, and timing of development activities (Appendix 3). The survey was piloted in January 2005 with the 130 community preceptors who then served the ERMEP – Queen's University – University of Ottawa region.

6. Focus Groups

Over the course of the project, 10 focus groups were held with community-based preceptors. Participants were deliberately selected to represent a range of practice types (family practitioner versus Royal College specialist) and years of experience as community-based preceptors. Representatives from the individual schools and programs assisted in the identification of participants and organization of the focus groups. Focus groups were held via teleconference or videoconference. Groups ranged in size from two to four participants. On two occasions where scheduling did not permit a group session, individual interviews were held. Focus groups were deliberately constructed to consist of either family practitioners or Royal College specialists. An honorarium was provided to each participant. The full list of participants is provided in Appendix 4.

The purpose of the focus groups was to augment the questionnaire results by providing more in-depth information with respect to community-based preceptor needs for faculty development. Five questions were used to guide the focus group discussions (Appendix 5). The fifth question regarding the involvement of other health professionals in teaching medical students and residents, was added following a preliminary review of the results at the working meeting held in March (see 7. Working Meeting). A thematic analysis was conducted of the detailed notes taken at each of the focus group sessions. The themes were combined with the results from the questionnaires to identify gaps and formulate recommendations.

7. Working Meeting

A full-day invitational workshop with Ontario medical schools' faculty development directors and DME directors or their delegates took place on March 27th 2006, in Toronto, to review the preliminary results and prepare initial recommendations. Appendix 6 lists the attendees to that meeting.

RESEARCH ETHICS APPROVAL

This project was approved by Queen's University Research Ethics Board.

DATA ANALYSIS

Interviews with DME directors and focus group discussions were analyzed qualitatively, looking for recurrent themes. SPSS software was used to enter and analyze responses to the preceptor survey. Data was analyzed provincially, per school or program, per preceptor clinical experience, and per type of practice (family medicine versus Royal College specialties). Means were compared using one-way ANOVA, and multiple comparisons between groups were computed using the Games-Howell test. When appropriate, chi-square tests for independent samples were applied to look for possible associations between variables.

RESULTS

1. Literature Search

The literature search on faculty development for community and rural preceptors is summarized according to the following themes:

a) Preceptors' motivation to teach
b) Preceptors' barriers to teaching
c) Preceptors' barriers to attend faculty development activities
d) Value of a faculty development program
e) Program flexibility
f) Formats for faculty development activities
g) Community preceptor role in the planning of development activities
h) Facilitators and audience
i) Incentives to attend faculty development activities
j) Evaluation of the impact of faculty development activities.

a) Preceptors' motivation to teach

Although precepting tends to add additional work time to the day and to decrease productivity[16], the overall impact is in general very positive for the community-based faculty involved[5]. Ullian classified the desirable impacts of precepting into three major types: affective, cognitive, and tangible.[5] Motivation factors identified in other studies are sorted here under this classification.

i. Affective

The most commonly mentioned reasons to teach relate to the intrinsic satisfaction gained from the teaching role, and to the sense of responsibility towards individual learners and towards the medical profession.[5,7,17] Belonging to a group of teachers, receiving positive reactions from patients, interacting with the medical school and being identified with it are also listed as important motivators.[7,17] Community faculty members embrace the opportunity to model their role as clinical experts in community-based health care and to share their expertise, and report that precepting enhances their enjoyment for patient care.[16,17]

ii. Cognitive

Learners help preceptors keep their knowledge up-to-date, learn or relearn basic sciences, and improve the quality of their practice.[5,16] Learners can also assist preceptors with literature searches and computer uses.[5]

Community preceptors attest of their increased awareness of, and reflection on, their teacher role, leading to more organized and purposeful teaching.[17]

iii. Tangible

Tangible impacts of precepting include tuition reductions for Continuing Medical Education, textbooks, faculty privileges on campus, Internet and e-mail access, certificates and plaques, faculty appointment, free medical school parking, and library access.[5,16]

Monetary payment is very important for some preceptors[7,16] but not desired by others[5].

Another positive and concrete outcome of precepting is the feedback and evaluation received from learners, which is highly valued by preceptors.[18]

Billing support, facility planning, fringe benefit administration, and marketing were deemed not important motivators.[16]

b) Preceptors' barriers to teaching

Preceptors rate time constraints and lack of space as their two main barriers to teaching.[5,7] Problematic interactions with learners, programs, or program personnel also interfere with preceptors' willingness to teach, and administrative tasks are sometimes perceived as burdensome and unnecessary.[5]

Other important barriers are the decrease in clinical productivity and the ensuing financial impact associated with precepting, the resistance, either real or perceived, from patients, the preceptors' lack of confidence in their ability to teach, poor support of their teaching role, and an increase in overall stress.[7,16,19]

c) Preceptors' barriers to attend faculty development activities

Preceptors do not attend faculty development activities mainly because of their cost in terms of lost income, and lack of time to devote to activities beyond clinical care delivery.[6] Travel distances between practice location and faculty development sites occasionally play a role.[10]

d) Value of a faculty development program

Faculty development is increasingly recognized as a reward for teaching, as a recruitment tool and a retention factor for preceptors.[5,7] Offering preceptor development, even when all preceptors do not participate, is a form of support.[2] Its greatest value may be in providing support to busy, often isolated community-based preceptors.[2] Faculty development has been shown to effectively improve preceptors' knowledge about education principles and teaching skills, to enhance their teacher identity, and to positively change their attitude towards teaching.[20]

Of note, mandatory participation to faculty development would discourage physicians from considering or continuing a preceptor role.[2]

Faculty development efforts are most effective when their goals and objectives are clearly stated and perceived as relevant to preceptors' work setting, when programs adhere to the principles of adult learning, and include a diversity of educational methods and strategies, and when materials developed for the sessions are well organized, concise, practical and easy to access.[2,5,20] Community preceptors'

involvement in the planning and delivery of faculty development activities is essential.[5]

e) Program flexibility

The literature stresses the importance of being flexible in the planning and delivery of professional development activities. In particular, it is essential to offer a variety of:

i. Formats

These include the usual seminars and workshops, and the less traditional monographs, videotapes, Objective Structured Teaching Examination, role-plays**,** Web modules and Websites, videoconferences, academic detailing, retreat, mass mailing, newsletters, faxes, e-mails, phone calls, face to face interactions, site visits, and informal lunches.[2,5,6,10,21-23]

ii. Topics

Most faculty development programs cover the core teaching principles of setting expectations, giving feedback, and evaluating.[2,3,5] Topics have to be relevant, pertinent, and concise, and the approach, evidence-based.[1,2,6,20]

iii. Timing

Timing of the educational sessions is critical. Lunchtime meetings and standing meetings are usually preferred, followed by meetings on Saturday morning.[2,4] Sessions taking place locally in the communities are preferable.[2,4,6] Some authors recommend holding the sessions in blocks of time no shorter than one day, in settings away from clinical practice, and scheduled to be the least disruptive to patient care.[1]

Several months of advanced notification helps community preceptors free their time to attend.[1]

f) Formats of faculty development activities

Preceptor development should be integrated in any interaction with preceptors. Combining Continuing Medical Education and faculty development seems to improve attendance.[2,5,6,24,25]

When faculty development activities are offered as stand-alone events, they need to be made attractive with food and possibly attractions for families.[5]

g) Community preceptor role in the planning of development activities

It is fundamental to involve community preceptors in the planning, delivery, and evaluation of faculty development activities. Let them do some of the facilitation and encourage them to discuss their precepting experiences.[1,2,5]

h) Facilitators and audience

Experienced preceptors rather than the medical school faculty should be used as facilitators.[4]

There are some benefits to limit the number of full-time faculty attendance and to mix university and community faculty as it enhances interaction and sense of partnership.[1,4] Eight to 10 preceptors need to be enrolled for successful longitudinal programs to foster a sense of camaraderie and reinforcement, and for cost-effectiveness purposes.[1]

i) Incentives to attend faculty development activities

Providing development sessions at no registration fee and with a meal are strategies mentioned repeatedly in the literature as important to improve attendance.[1] Sending material just before a learner's rotation or in response to learners' feedback increases relevance to preceptors.[2] Including enough time for networking around preceptors' educational experiences is also a highly valued component of faculty development activities..[6,17]

j) Evaluation of the impact of faculty development activities

It is nearly impossible to assess the full impact of faculty development sessions. As mentioned earlier, part of the value of these educational sessions lies in

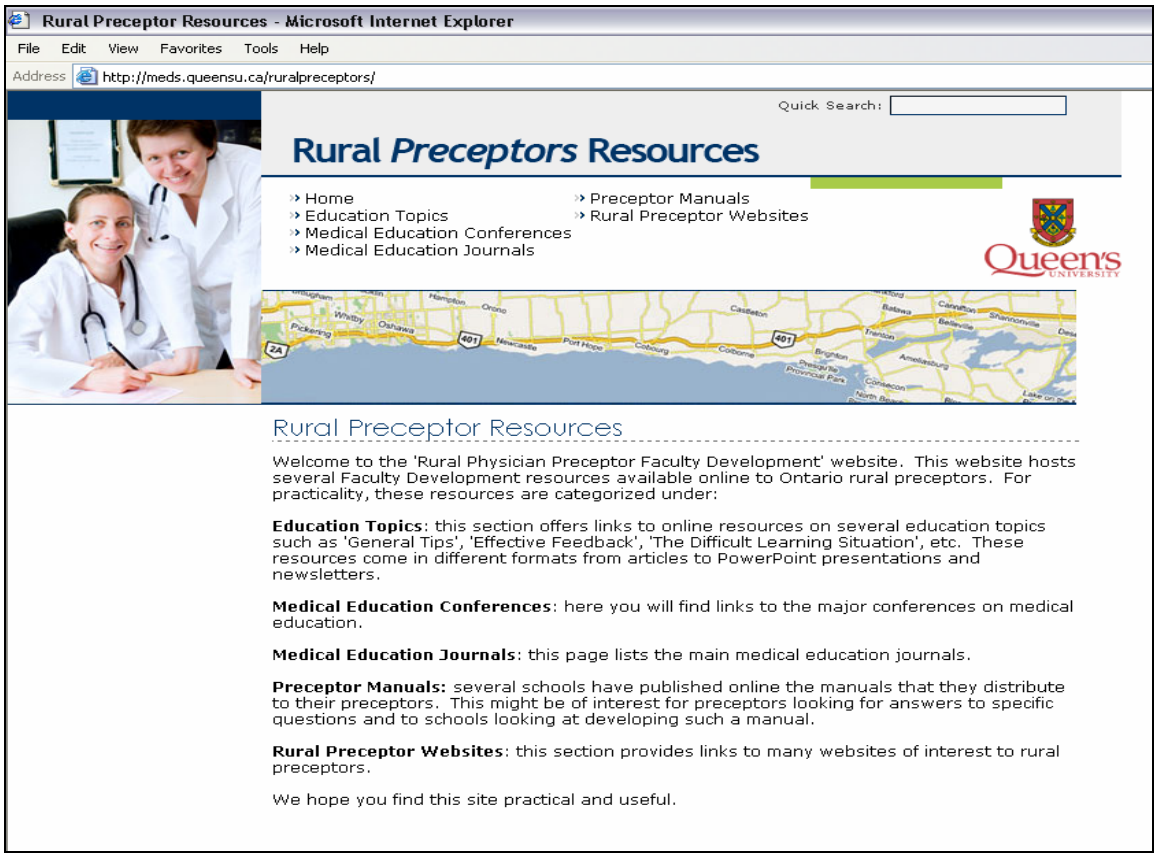
the support they provide to community physicians, and the chance they offer to network and share with peers their teaching experiences.

The following outcome measures are presented in the literature: surveys of participants' satisfaction, workshop ratings, pre-tests followed by immediate and distant post-tests to evaluate knowledge acquisition and retention, number of times Web-modules or Websites are accessed or written documentation required, and changes in specific teaching behaviors such as 'writing measurable objectives' or 'quality of feedback provided'.[1,2,4,6,26,27] Although community-based faculty rate their teaching skills as improved following faculty development, observation reveals little correlation between self-assessed and observed skills.[28]

More meaningful measures of the impact of faculty development sessions would be positive changes in learners' evaluations of their preceptors' teaching skills. This type of evaluation has rarely been conducted and published. Available reports show a positive impact of faculty development programs on several teaching competencies.[27,29] A self-efficacy scale measuring the impact of faculty development programs has been found to have high internal reliability.[30]

2. Web Page Search

A Web page was created listing pages of interest to rural preceptors. The page contains links to education resources, medical education conferences, medical education journals, preceptor manuals, and different rural preceptor websites. The page is currently hosted on Queen's University server, at http://meds.queensu.ca/ruralpreceptors/



3. School and Program Questionnaire

Description of Current Programs

Each of the six medical schools across Ontario offer some form of community-based experience integrated into the medical curriculum (Table 1). The type and the extent of experience vary across the different schools.

At the undergraduate level, community-based placements are a mandatory component of the curriculum at four medical schools, and opportunities exist at the two remaining schools. Of note, at NOSM, undergraduate medical students spend 30 weeks in community placements in each of their third and forth year. At the post-graduate level, community rotations tend to be mandatory for Family Medicine and Pediatrics, and available for most of the other residency programs on a selective basis.

Under the umbrella of SWOMEN, the University of Western Ontario (UWO) is the longest standing program for community-based placements. For other schools, the programs are at varying stages of development.

Great care has been taken at determining the current number of community preceptors in Ontario. All schools and programs except the NOSM provided us with a list of their preceptors' names and locations. The NOSM shared with us the number of preceptors in each community and the names of preceptors who might account for duplicates with other schools or programs based on their practice location. Our initial list contained 2078 names. After engaging in a detailed exercise of verifying each name across all lists, deleting duplicate names and those of physicians no longer registered with the College of Physicians and Surgeons of Ontario, and identifying the type of practice for each preceptor (family medicine vs. Royal College specialties), the total number of known community preceptors in Ontario currently stands at 1793. Of these, 875 (49%) are family practitioners and 918 (51%) are Royal College specialists. It is important to note that these numbers present a snapshot of the community preceptor situation at the time of this report. As each school and program is actively developing its regional outreach, these numbers constantly evolve. Table 2 presents a breakdown of community preceptors per location and specialty (family medicine vs. Royal College specialty medicine).

Table 1 – Opportunities for Community-based Placements

Undergraduate Medical Education Curriculum	Post-graduate Medical Education Curriculum (Residency)
University of Western Ontario	
There are mandatory 1-month community-based placements during clerkship. This can extend to 12 weeks in Emergency Medicine, Pediatrics, Psychiatry, or Obstetrics & Gynecology.	Most programs have a mandatory community-based placement component to fulfill the South Western Ontario medical education mandate.
McMaster University	
There is opportunity for undergraduate medical students to spend time in the community. 66 clerks took advantage of the opportunity in 2005/06 for a total of 433 weeks.	A community rotation is mandatory for Family Medicine, Pediatrics, and Internal Medicine. There is opportunity for all post-graduate learners to spend time in the community. 89 residents did community rotations in 2005/06 for a total of 662 weeks.

Northern Ontario School of Medicine	
NOSM is a community-based undergrad program with extensive placement requirements. It is mandatory for undergraduate students to spend time in community-based placements. This occurs every year: 8 weeks in each of 1st and 2nd year, and 30 weeks in each of 3rd and 4th year.	It is mandatory for all residency programs, Family Medicine and Royal College specialties. Family Medicine placements occur mostly in second year for at least 10 months. Pediatrics placements occur mostly in the second year for 2 months. There is also opportunity for non-mandatory community-based placements; learners always take advantage.
University of Toronto	
It is not mandatory for undergraduate medical students to spend time in a community-based placement. There is an elective opportunity, and approximately 16 students do their core clinical clerkship in family medicine in a rural setting.	It is mandatory for Family Medicine residents to spend time in the community. This occurs at post-graduate year 2 (PGY-2) for 2 months. 70-80% of PGY-2 Family Medicine residents spend 2 months in rural placements (referred to as the rural residency program) and 20-30% spend 2 months in suburban placements (referred to as the teaching practice program).
Queen's University	
Each student is required to spend 3 to 6 weeks as a clerk in a community based core rotation. All students participate. Each student is required to spend 4 to 6 weeks as a clerk in a community based family medicine core rotation. 90 of 100 students take advantage. Students are invited to a "week in the country" experience at the end of their first year. 40 students participated in 2003, 50 in 2004, and 55 in 2005. Students have the option of doing their "critical enquiry" rotation at the end of their second year in a community setting. About 10 students take advantage each year. Theology 101 is an elective interdisciplinary course which provides the opportunity for 10 medical students to learn about working and living in a small community.	It is mandatory for residents to spend time in the community in the following disciplines: Pediatrics – 8 weeks; Emergency – 8 weeks; Urology – 4 weeks; Anesthesia – 4 weeks; ObsGyn – 4 weeks; Internal medicine – 4 weeks; Rehabilitation medicine – 4 weeks; Family Medicine – 12-18 months of 24 months; 4-8 months of PGY3 Family medicine programs; Psychiatry – elective rotation if possible in the community. In general surgery, orthopedic surgery, palliative care, and pathology, there is opportunity for residents to spend time in the community. An increasing number are taking advantage. In summary, 70-75% of the residents have a mandatory rotation in the community.
University of Ottawa	
One month of community-based placement is mandatory in either 3rd or 4th year.	Family Medicine residents have a 2-month mandatory time. Pediatric residents have community rotations in each of PGY 1,2,&3.

Table 2 – Community Preceptor Number and Type of Practice (Family Medicine vs. Royal College Specialty Medicine) per School/Program*

School/Program	Number	Family Physicians	Specialists
McMaster University	116	57 (49%)	59 (51%)
NOSM – East campus	392	173 (44%)	219 (56%)
NOSM – West campus	274	167 (61%)	107 (39%)
Queen's University	240	102 (43%)	138 (57%)
University of Ottawa	56	56 (100%)	0
University of Toronto	112	91 (81%)	21 (19%)
UWO/SWOMEN	277	85 (31%)	192 (69%)
ERMEP	84	60 (71%)	24 (29%)
ROMP	527	299 (57%)	228 (43%)
Total	2078	1090	988

*These numbers are those provided by each school and program, before duplicates were removed.

Figure 1 shows the geographic distribution of community preceptors across Ontario. Figure 2 reveals the distribution of family physician preceptors and Figure 3, that of Royal College specialist preceptors. Not surprisingly, Royal College specialist preceptors tend to cluster around larger centers and their geographic distribution is not as extensive as that of family physician preceptors.

Figure 1: Distribution of Community-based Preceptors across Ontario

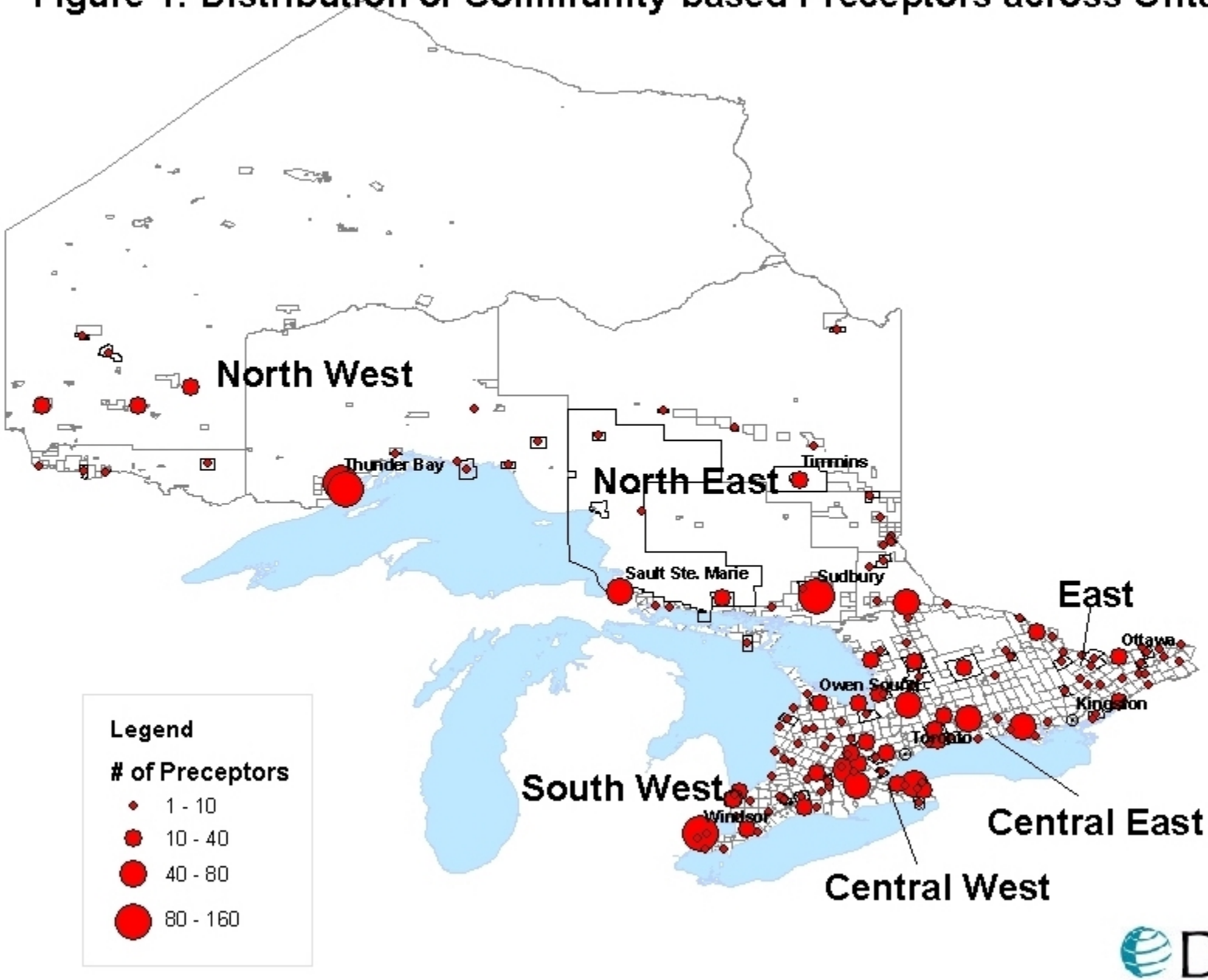


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Figure 2: Distribution of Community-based Preceptors who are Family Physicians

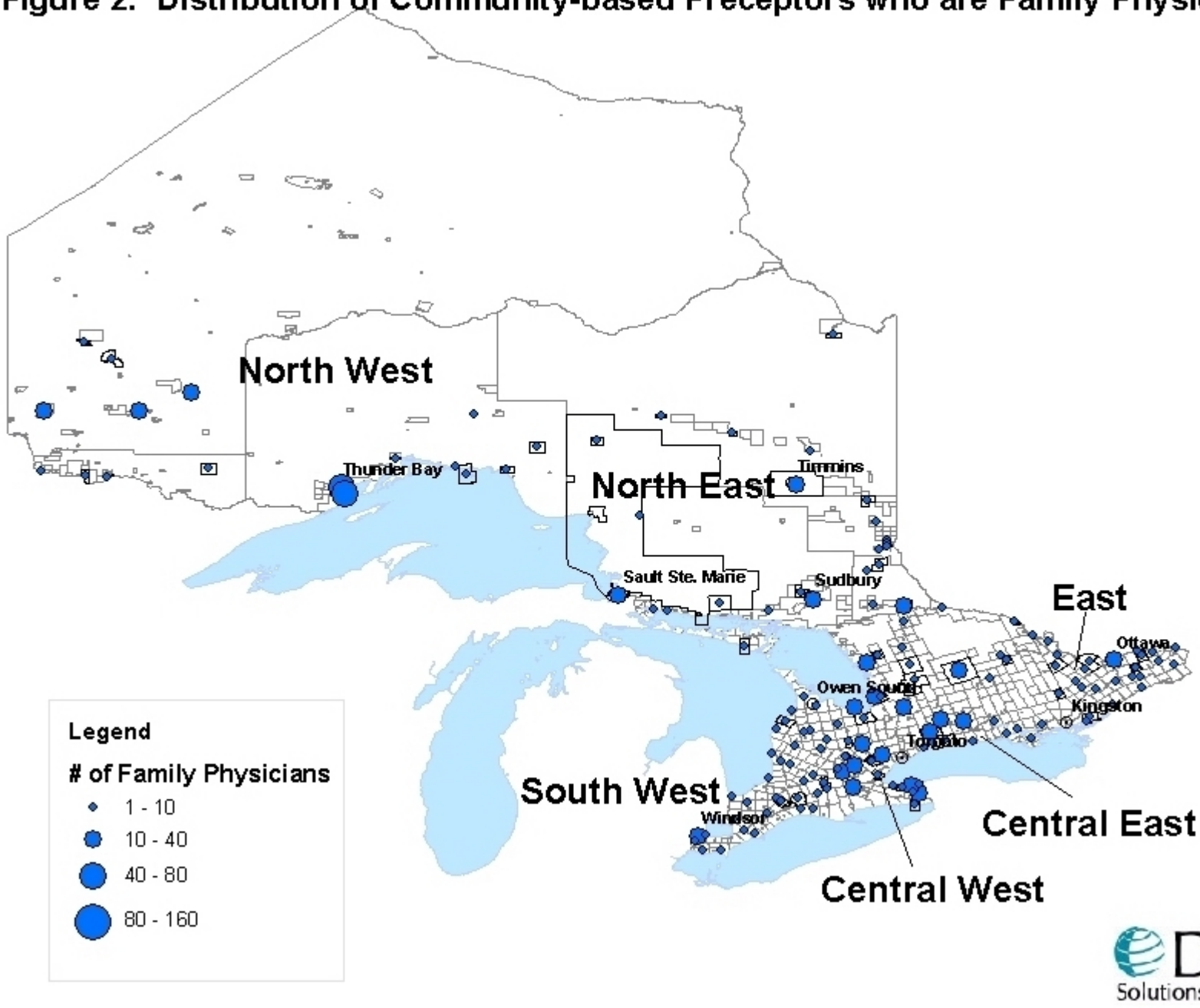

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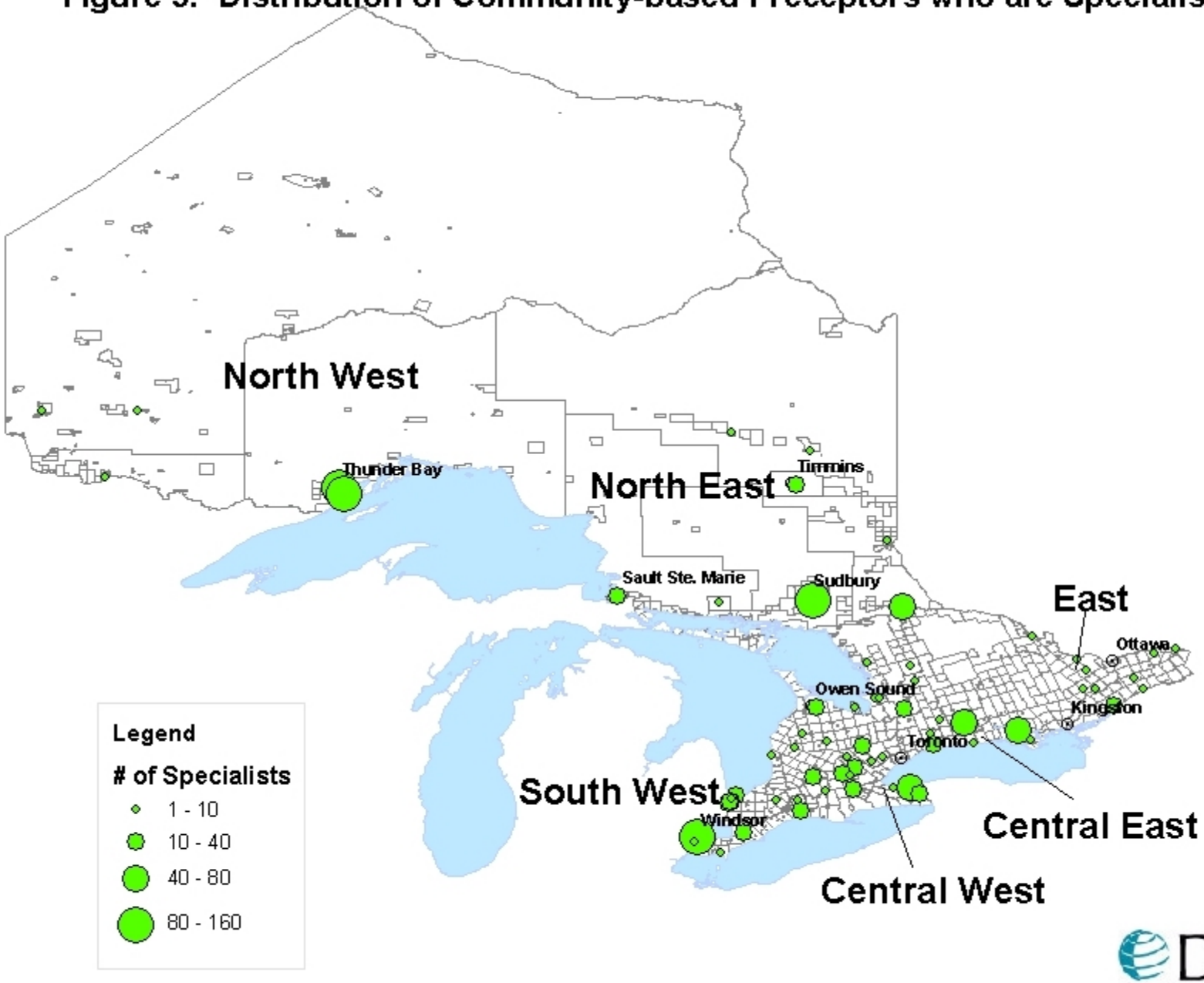
Figure 3: Distribution of Community-based Preceptors who are Specialists



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As stressed earlier, it is difficult to draw a clear line between *community* and *rural* preceptors. For sake of homogeneity of the data collected, the different schools and programs were asked to provide the list of their community preceptors. The index of rurality was then applied to the practice location of these preceptors to extract the percentage of community preceptors who indeed practice in rural settings.[15]

Table 3 gives the number of preceptors practicing in areas with a rurality index higher than 50.

Figures 4 and 5 illustrate the distribution of community preceptors across Southern Ontario and Northern Ontario respectively, in relation to the index of rurality of their practice location. It can be easily appreciated that the most rural areas are located in the North East and North West parts of the province, and comprise relatively few preceptors. Limiting our study population to this group of preceptors would have yielded results based on a very small number of respondents and would have cast doubt on the generalizability of our findings and recommendations. It would also have failed to identify the professional needs of the physicians who currently do the majority of the precepting in the community. We rather chose to study all community preceptors and to explore through their answers to the survey and through the focus group discussions whether the faculty development needs of community preceptors differ based on their practice location. Our results as detailed in this report show that both groups share the same teaching challenges and professional development needs.

Figures 6 and 7 show the location of community-based preceptors who are affiliated with more than one school or program. As schools and programs extend their community reach, the number of shared preceptors and communities is expected to increase.

Table 3 – School or Program Affiliation and Number of Preceptors Located in Regions with RIO Scores Above 50

RIO Scores	% of preceptors	# of preceptors	# of Family	# of Specialists	Community	School
90-100	1%	13	13	0		
		3	3	0	Moose Factory	Queens/Toronto
		4	4	0	Hearst	NOSM-E
		6	6	0	Red Lake	NOSM-W
80-90	2%	28	27	1		
		2	2	0	Manitouwadge	NOSM-W
		1	1	0	Hornepayne	NOSM-W
		2	2	0	Geraldton	NOSM-W
		8	8	0	Marathon	NOSM-W
		5	4	1	Kapuskasing	NOSM-E
		2	2	0	Terrace Bay	NOSM-W
		2	2	0	Rainy River	NOSM-W
		6	6	0	Atikokan	NOSM-W
70-80	4%	77	74	3		
		3	3	0	Carleton Place	ERMEP/Ottawa/Queen's
		2	2	0	Englehart	NOSM-E
		1	1	0	Ear Falls	NOSM-W
		2	2	0	Kirkland Lake	NOSM-E
		3	3	0	Emo	NOSM-W
		8	7	1	Fort Frances	NOSM-W
		3	2	1	Cochrane	NOSM-E
		1	1	0	Schreiber	NOSM-W
		26	26	0	Sioux Lookout	NOSM-W
		1	1	0	Cobalt	NOSM-E
		14	14	0	Haliburton	ROMP/Toronto
		6	6	0	Mindemoya	NOSM-E
		6	5	1	New Liskeard	NOSM-E
		1	1	0	Combermere	ERMEP/Ottawa/Queen's
60-70	2%	40	35	5		
		11	9	2	Elliot Lake	NOSM-E
		16	14	2	Dryden	NOSM-W/Queen's
		2	2	0	Haileybury	NOSM-E
		2	2	0	Clinton	UWO
		1	1	0	Barry's Bay	ERMEP/Queen's
		4	4	0	Tobermory	Toronto/UWO
		1	1	0	Southampton	UWO
		3	2	1	Wingham	UWO
50-60	6%	108	92	16		
0-50	85%	1509	610	899		
na	0%	8	8	0		

Figure 4: Community-based Preceptors and Rurality Index for Southern Ontario (RIO)

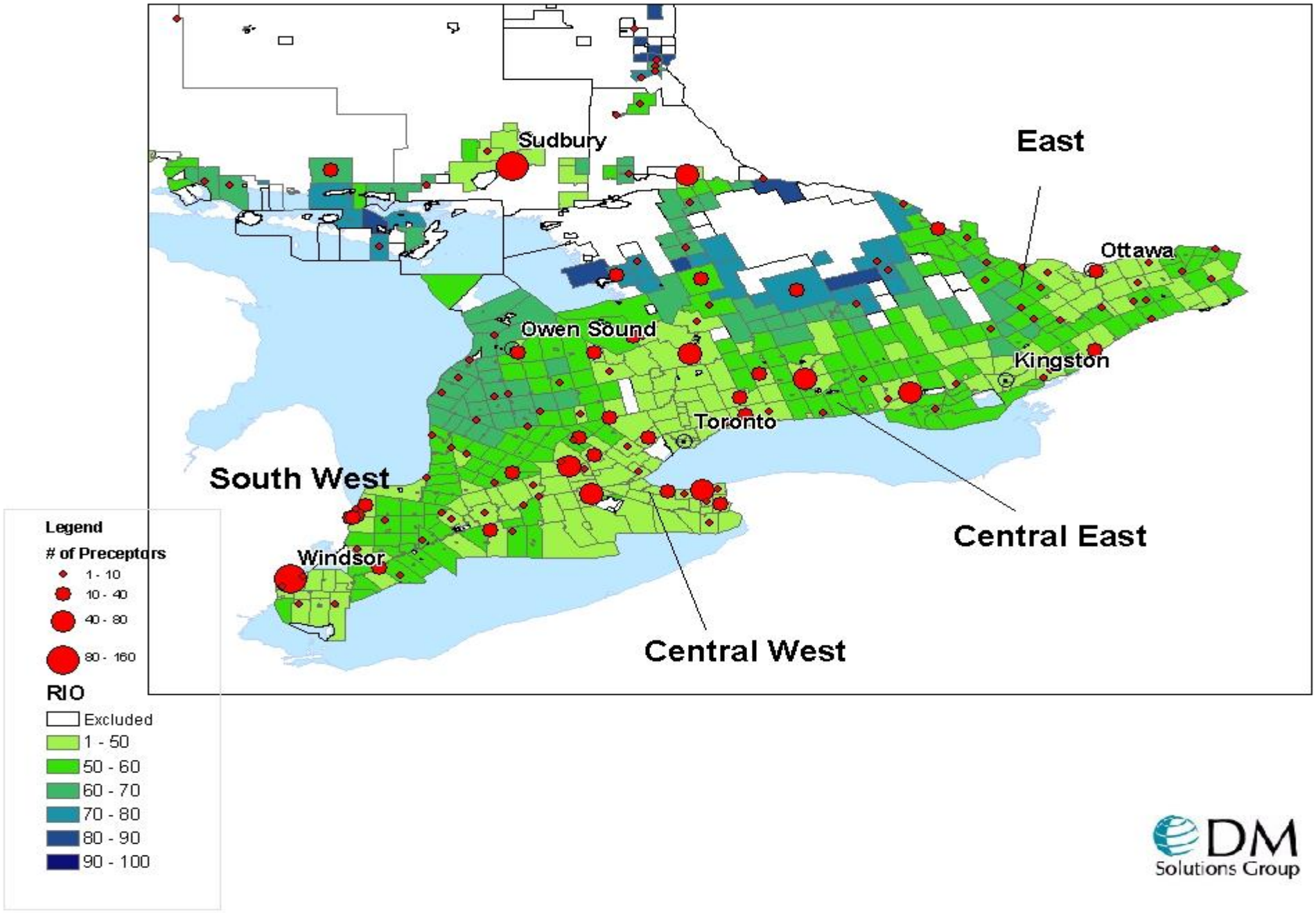

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Figure 5: Community-based Preceptors and Rurality Index for Northern Ontario (RIO)

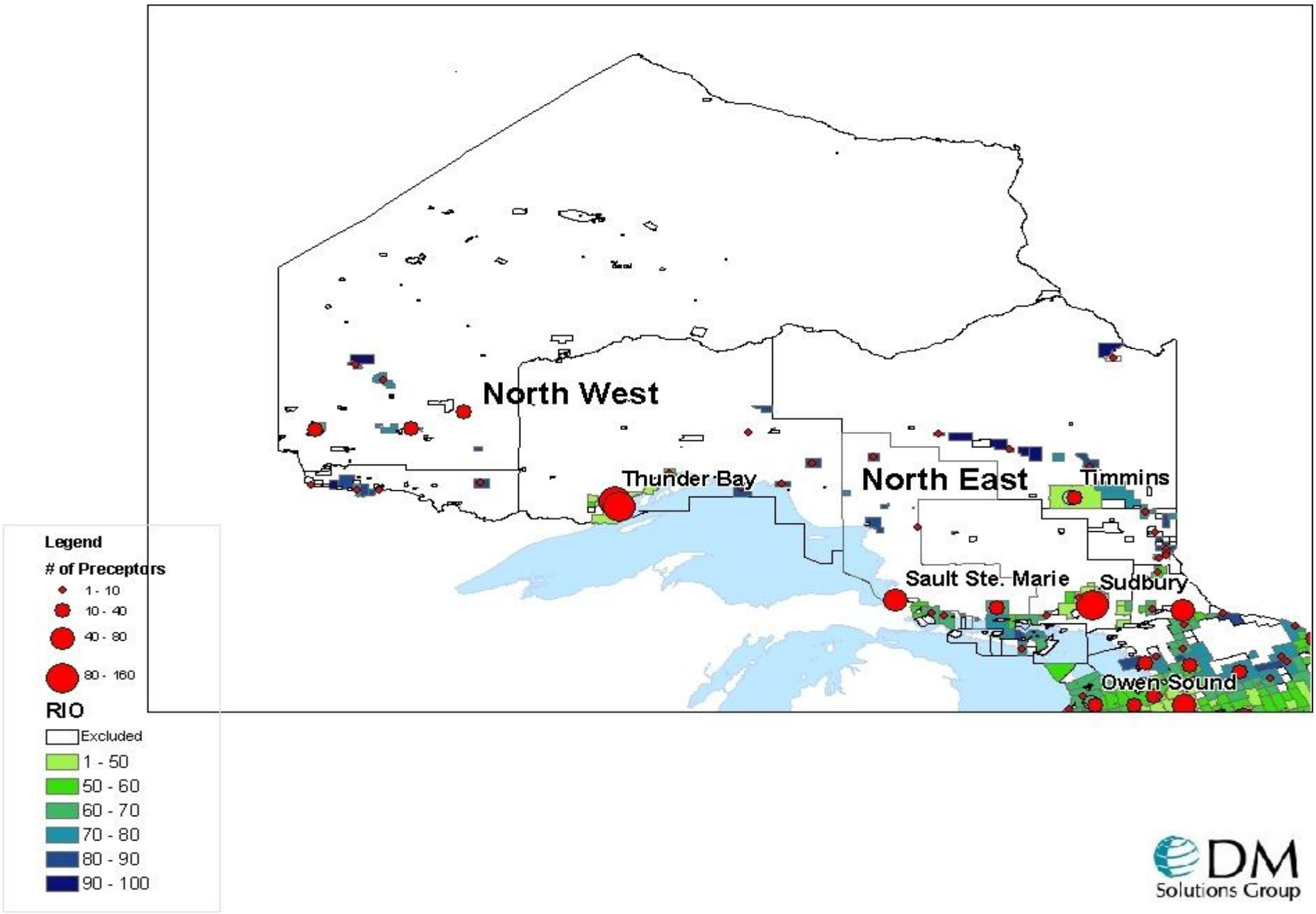

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Figure 6: Location of Community-based Preceptors affiliated with more than one organization in Southern Ontario

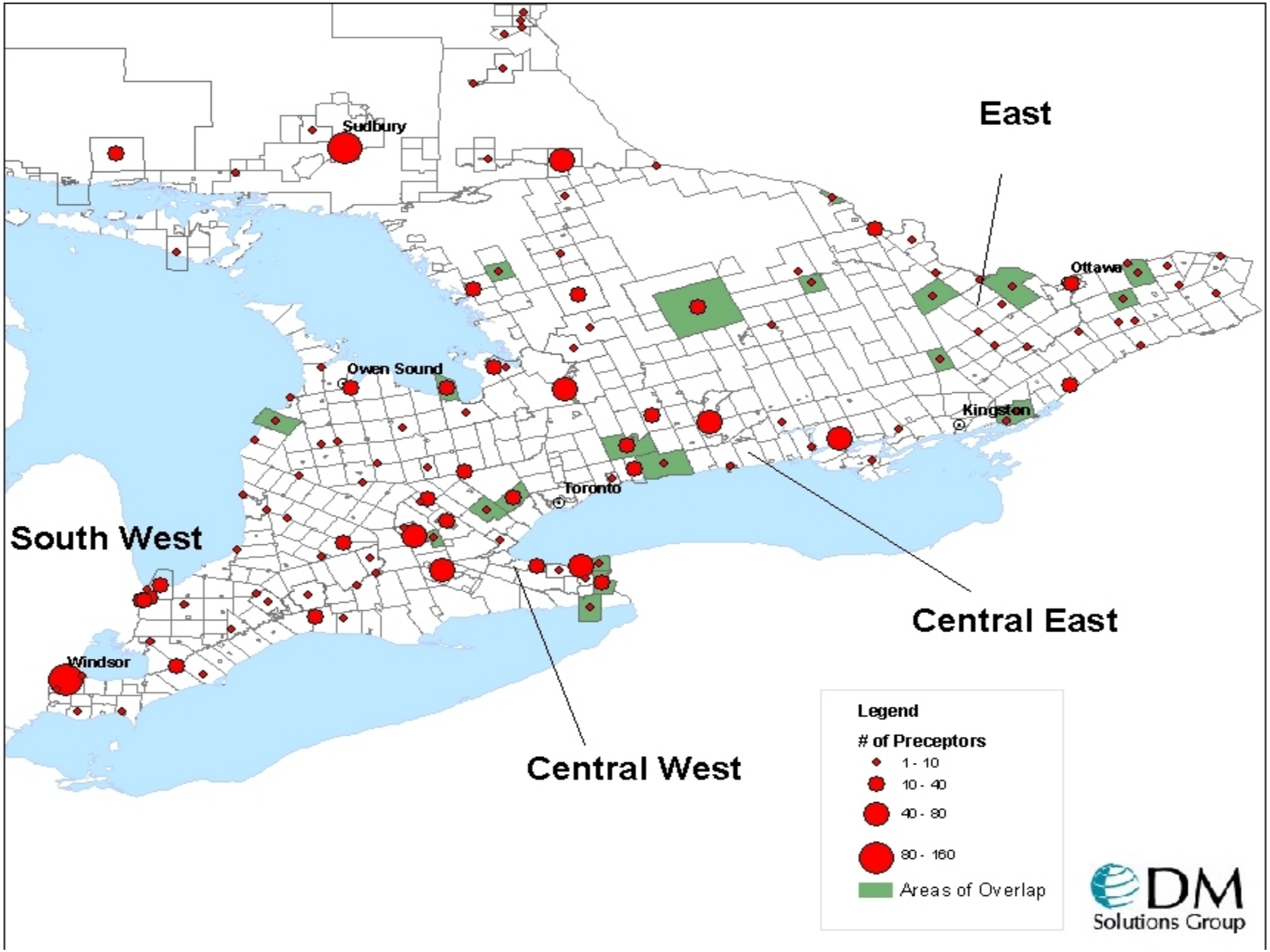
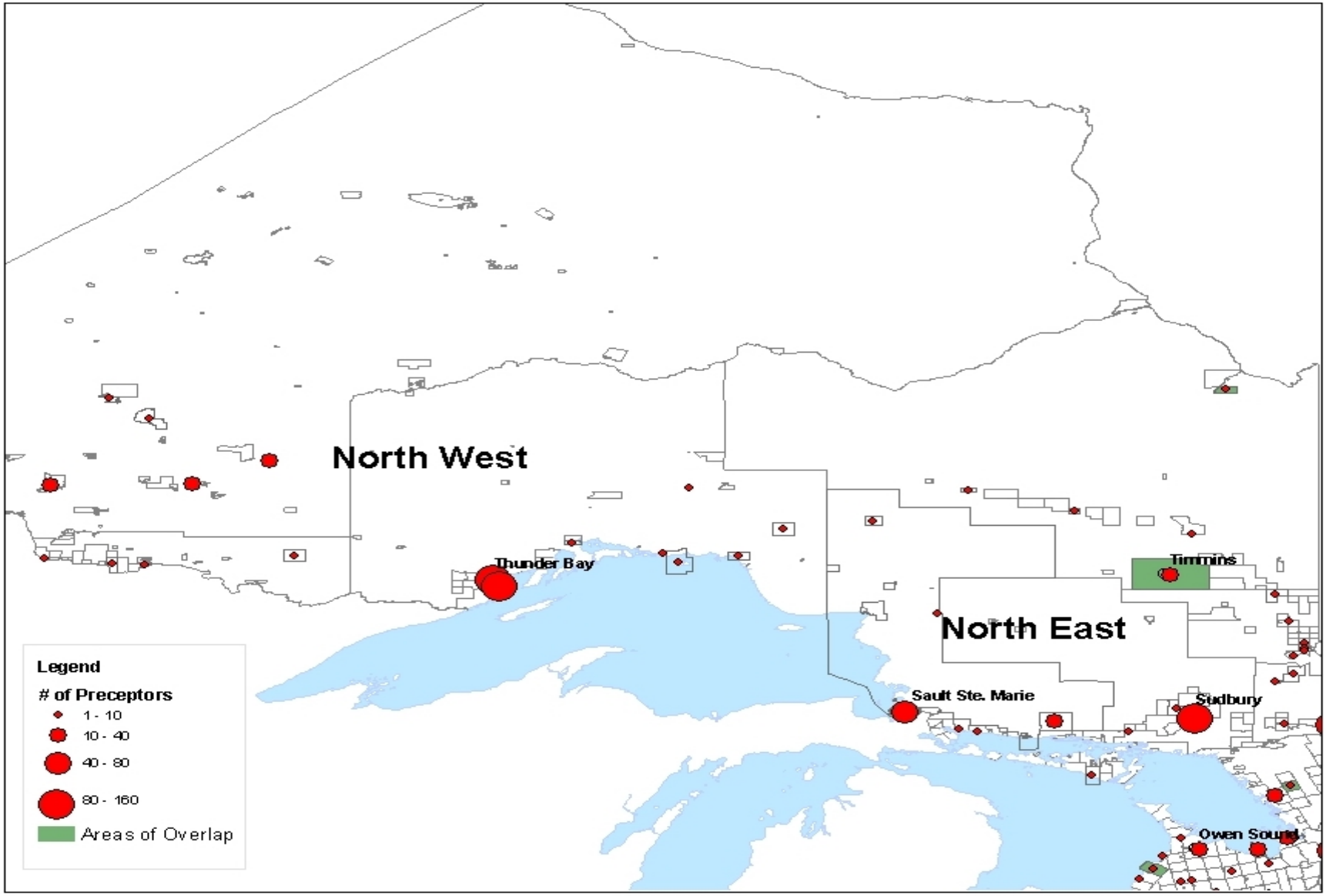


Figure 7: Location of Community-based Preceptors affiliated with more than one organization in Northern Ontario



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Faculty Development Efforts

Each of the medical schools, as well as ROMP and ERMEP, provide some type of faculty development for community-based preceptors. Across the province, faculty development tends to be a mixture of annual workshops and individualized programs as provided during on-site visits. Annual workshops are provided through two of the rural education programs (ROMP and ERMEP). Topics for the annual workshops are determined based on feedback from the community-based preceptors. Community-based preceptors are also invited to attend any faculty development workshops available to the university faculty. A sample of topics addressed through faculty development includes:

- University expectations of preceptors
- Review of educational objectives for learners
- Time-efficient precepting
- Providing feedback to students
- Dealing with the learner in academic difficulty.

All schools provide a financial stipend to community-based preceptors as well as access to library resources and appointments to the medical school. Most schools have some degree of access to videoconferencing facilities. The ability to provide conference sponsorship as well as personal and family tuition support were noted as desired incentives but not currently provided.

Anticipated Needs

The majority of the medical schools and rural education programs (ROMP and ERMEP) foresee an increase in the need for community-based preceptors over the next two years (Table 4). At the University of Western Ontario, the need for specialists, specifically in Obstetrics & Gynecology, was the anticipated pressure point.

Table 4 – Anticipated Needs for Community-based Preceptors

Over the next two years	Over the next five years
University of Western Ontario (SWOMEN)	
UWO foresees a limited increase in need, and expects the need to be specialty-specific i.e. Obstetrics/Gynecology.	Not sure.
McMaster University	
There will be an increased need due to medical school expansion. The exact numbers are unknown.	Numbers unknown.
Northern Ontario School of Medicine	
NOSM expects that the need will increase over the next 2 years. NOSM will hopefully draw teachers from other parts of Canada and the world to the region in order to ease the present human resource crisis.	NOSM hopes that once its learners complete their residency training (6-10 years) and become preceptors in the area, the strain on the system will ease. As the new medical school draws physicians from other parts of Canada and beyond to the region it is anticipated that the strain will lessen.
University of Toronto (U of T)	
U of T expects a 25-30% increase in training months for the teaching practice program, and a 25-50% increase for rural residency program.	U of T expects an approximate 30-50% increase in training months for the teaching practice program, and a 50-100% increase for rural residency program.
Queen's University	
There is an increasing expectation by the Royal College that community-based expectations are a part of the learning experience. Also there is an expansion of post-graduate programs. So it is expected that the need for community-based preceptors will continue to increase.	It is expected that the need for community-based preceptors will continue to increase.
University of Ottawa	
An increased need for community-based preceptors is expected.	A further increase in need for community-based preceptors is expected.
Rural Ontario Medical Program	
ROMP expects the needs for community-based preceptors to increase in both core and elective requests.	ROMP expects an increased need in both core and elective preceptors, and an increase in preceptor time commitments.
Eastern Regional Medical Education Program	
ERMEP expects a 50% increase in number of preceptors, and an increase in the number of months per year each preceptor is teaching. Most will teach 6 out of 12 months, some 10 or 11.	ERMEP expects a doubling over 5 years, and expects a mix of undergraduate and postgraduate teaching for most preceptors.

4. Community-based Physician Preceptor Survey

The survey shown in Appendix 3 was sent out to assess the needs for faculty development of Ontario preceptors who taught for at least one month in the previous year. To minimize duplicate mailing between schools and programs and still ensure adequate provincial representation, preceptors were chosen from the SWOMEN, ROMP and NOSM areas. As mentioned in the methods section, preceptors from the ERMEP - Queen's University - University of Ottawa area were surveyed in the spring of 2005, and their responses included here.

Results are presented according to the following themes:

a) Response rate
b) Years in practice
c) Prior instruction in education
d) Preceptors' perceptions on teaching
e) Teaching sites used
f) Barriers to teaching
g) Faculty development activities
    i. Topics of interest
    ii. Preferred sites
    iii. Preferred formats
    iv. Preferred timings
h) Interest for Videoconferenced Grand Rounds

a) Response Rate

A total of 1170 community preceptors were invited to complete the survey.

The overall response rate was 55%. Region-specific response rates are presented in Table 5.

Table 5 – Region-specific Response Rate

	ERMEP (2005)	ROMP	SWOMEN	NOSM-Northeast	NOSM – Northwest
Number of surveys sent out	130	321	278	331	110
Number of surveys completed	96	174	147	147	75
Respondents - % of Family physicians	30	51.1	25.9	43.5	52
Respondents - % of Specialists	70	46.6	71.7	55.2	48
Respondents - % Unknown practice	0	2.3	2.7	1.4	0
% Response rate	**74**	**54**	**53**	**44**	**68**

Family physicians form 39.7% of respondents and Royal College specialists 58.4% (2.2% of respondents did not identify their type of practice). Table 6 contrasts the percentage of response from community family physicians and specialists in relation to their provincial representation, and presents a breakdown of respondents by specialty. The percentage of specialists responding to the survey is slightly higher than their provincial representation. Accordingly, the proportion of family physicians answering the survey is lower that their provincial representation. Results are analyzed within each grouping (family physicians and Royal College specialists) to ensure that they apply to each specific group.

Table 6 – Number of Survey Respondents per Specialty

	Survey Respondents		Total Number of Preceptors in Ontario	
Type of Physician	**#**	**%**	**#**	**%**
Family Practitioners	254	39.7%	875	49%
Royal College Specialists	371	58.4%	918	51%
General Surgery	43	6.7%		
Paediatrics	43	6.7%		
Emergency Medicine	43	6.7%		
Obstetrics/Gynecology	40	6.3%		
Anesthesiology	38	5.9%		
General Internal Medicine	34	5.3%		
Psychiatry	32	5.0%		
Orthopedic Surgery	19	3.0%		
Cardiology	7	1.1%		
Nephrology	7	1.1%		
Pathology	7	1.1%		
Oncology	6	0.9%		
Urology	5	0.8%		
Plastic Surgery	5	0.8%		
Thoracic Surgery	5	0.8%		
Respiratory Medicine	5	0.8%		
Radiology	5	0.8%		
Dermatology	4	0.6%		
Gastroenterology	4	0.6%		
Infectious Diseases	3	0.5%		
Endocrinology	3	0.5%		
Neurology	2	0.3%		
Radiation Oncology	2	0.3%		
Vascular Surgery	2	0.3%		
Physical Medicine & Rehabilitation	1	0.2%		
Critical Care	1	0.2%		
Hematology	1	0.2%		
Public Heath	1	0.2%		
Rheumatology	1	0.2%		
Sports Medicine	1	0.2%		
Palliative Care	1	0.2%		
No Answer	14	2.2%		
Total	639	100.0	1793	100%

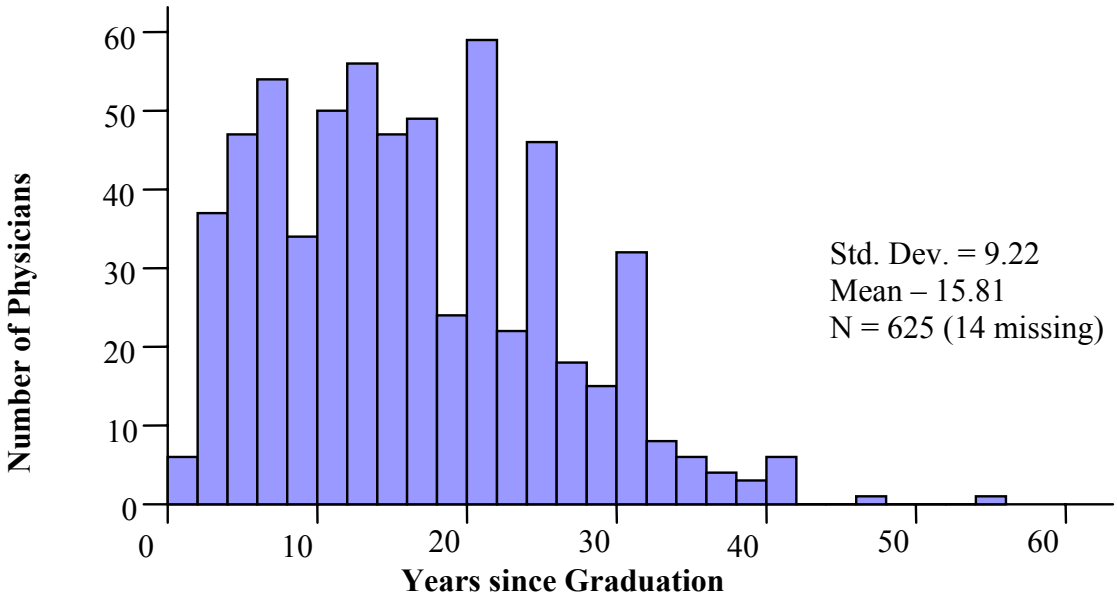
***Numbers rounded to nearest significant figure**

The survey results are presented from four different perspectives when applicable. Firstly an overall picture is given, as it applies to all community preceptors. Secondly, results are examined by region. Thirdly, results are presented in relation to the preceptors' number of years in practice, to explore the impact of clinical experience on teaching and on faculty development needs. Finally, results are analyzed according to preceptors' type of practice (family medicine vs. Royal College specialty medicine), to uncover the possible different needs of these two groups.

b) Years in Practice

Respondents to the survey have been in practice for an average of 16 years (SD 9 years) (Figure 8). There is no significant difference in the mean number of years between the different regions (Appendix 7 – Table A) or between family physicians and Royal College specialists (Appendix 7 – Table).

Figure 8 - Years since Graduation of Community Preceptors



c) Prior Instruction in Education

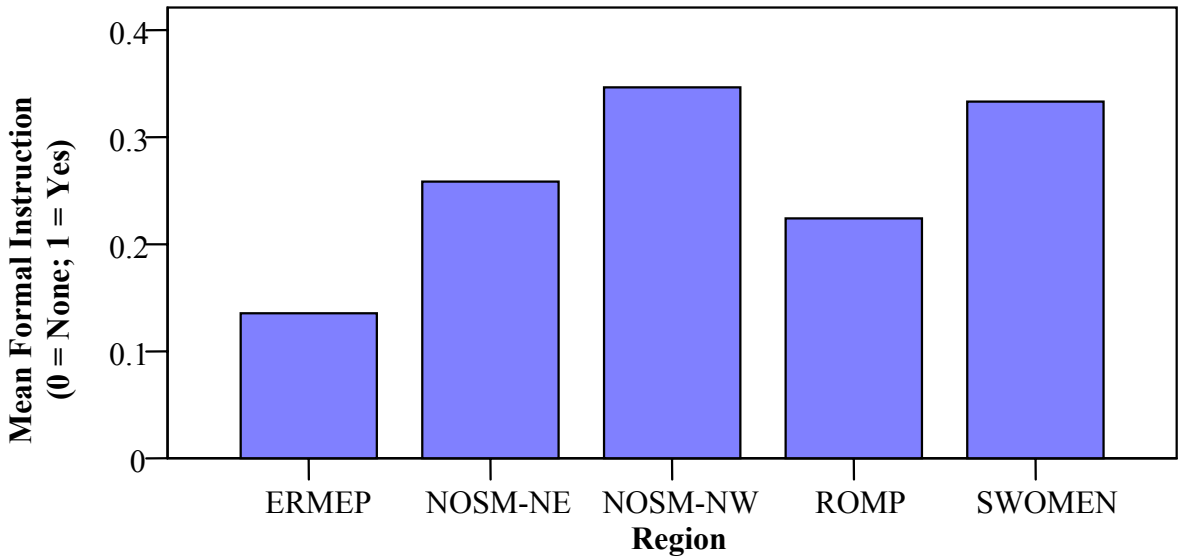
The majority (74.2%) of survey respondents do not have any formal prior instruction in education (Table 7). Considered in the response were participation in local courses, regional courses, or a master's degree in education. The ERMEP preceptors have significantly less instruction in education than the NOSM-NW and the SWOMEN preceptors (Figure 9; Appendix 7 – Table C). This might reflect the length of time a preceptor program has been in place in these areas and subsequently the availability of organized faculty development sessions.

Table 7 – Prior Formal Instruction in Education

	Community Preceptors		Family Practitioners		Specialists	
	#	%	#	%	#	%
No	474	(74.2)	187	(72.8)	278	(75.7)
Yes	165	(25.8)	70	(27.2)	89	(24.3)

***Numbers rounded to nearest significant**

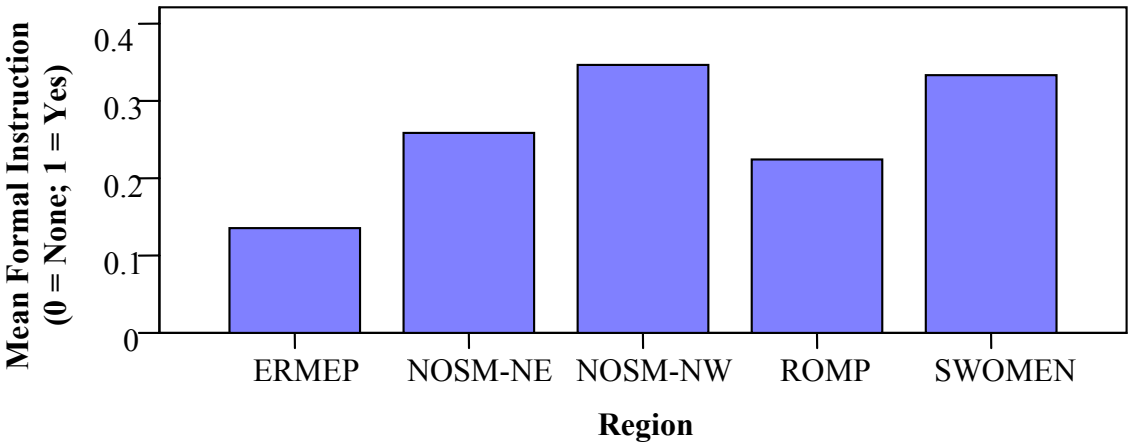
Figure 9 – Prior Formal Instruction in Education per Region



Preceptors with longer clinical experience have received more formal instruction in education (Figure 10, Appendix 7 – Table D).

Preceptors' type of practice (family medicine vs. Royal College specialty medicine) does not influence their level of prior instruction (Table 7; Appendix 7 – Table).

Figure 10 – Formal Instruction in Education in Relation to Years of Clinical Experience



d) Community Preceptors' Perceptions on Teaching

All respondents express a strong interest in teaching and a sense that teaching is rewarding (Figures 11 and 12). Community preceptors feel comfortable teaching (Figure 13).

Figure 11 – "I Am Interested in Teaching"

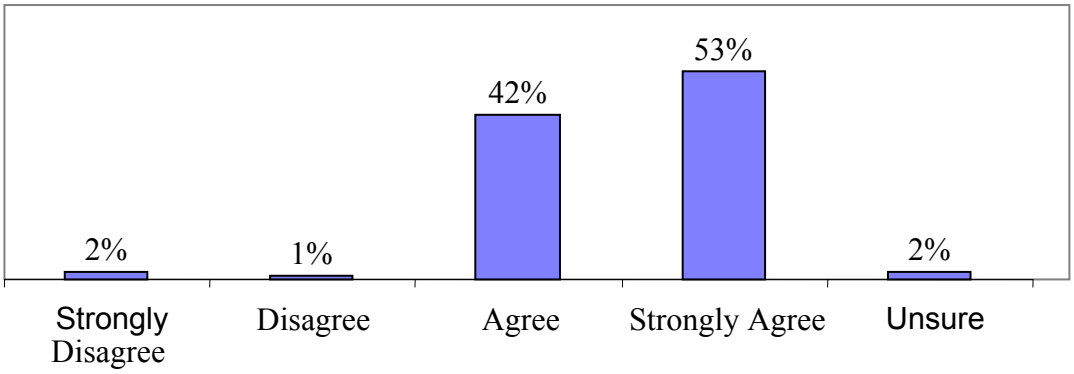


Figure 12 – "I Find Teaching Rewarding"

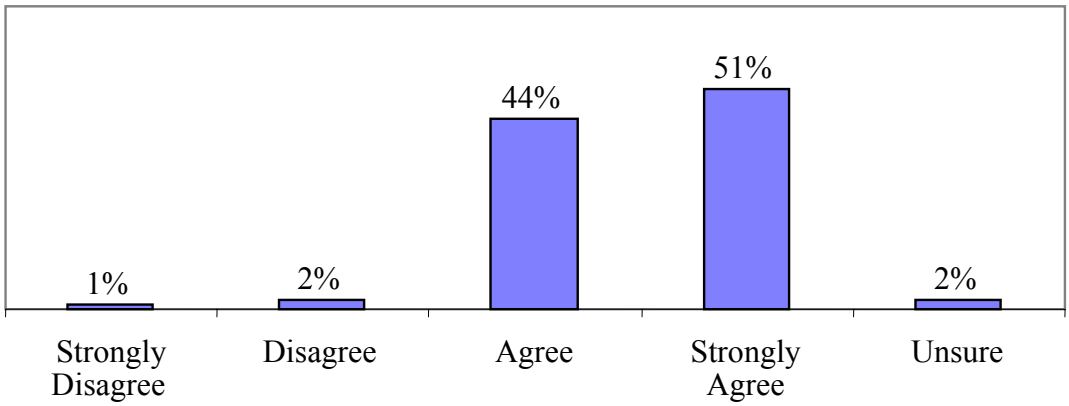
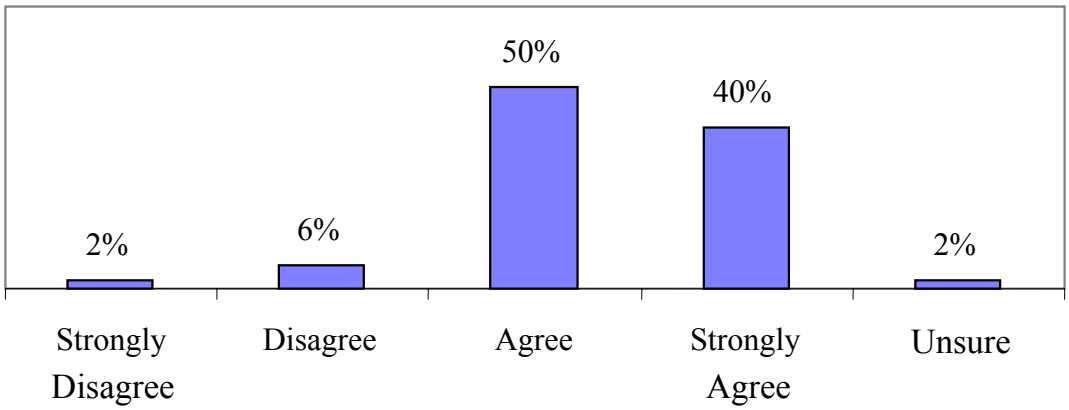


Figure 13 – "I Am Comfortable Teaching"



There is no significant difference in preceptors' perceptions on teaching interest, on finding teaching rewarding, and on being comfortable at teaching between the different regions (Appendix 7 – Table F).

Similarly, the number of years in practice does not change these positive perceptions (Appendix 7 – Tables G).

Family physicians have a significantly greater interest in teaching and report teaching rewarding significantly more so than Royal College specialists (Appendix 7 – Table H). Family physicians and Royal College specialists feel equally comfortable in teaching (Appendix 7 – Table H).

e) Teaching Sites

The office and the emergency department constitute the two main teaching sites for family physicians whereas Royal College specialists use primarily inpatient wards and the emergency department (Table 8).

Table 8 – Teaching Sites

Sites Used For Teaching	Overall	Family Physicians	Specialists
Office	37%	58%	22%
Patient Ward	19%	11%	24%
Emergency Dept.	14%	15%	13%
Outpatient Clinic	12%	6%	17%
Operating Room	5%	0%	9%
Small Group	4%	2%	6%
Institution	2%	3%	1%
Home	1%	2%	0%
Large Classroom	1%	0%	1%
Lab	0%	0%	0%

f) Barriers to Teaching

A detailed table of the several barriers to teaching listed by community preceptors is presented in Appendix 8.

Lack of time is reported to be the primary barrier to teaching for preceptors in all regions, and for both family physicians and Royal College specialists (Table 9). Preceptors comment that their practice is too busy, that learners slow their pace, and that competing demands make teaching difficult. Time remains the main barrier regardless of length of time in clinical practice i.e. clinical experience does not appear to make it easier to balance patient care and teaching (Appendix 9).

Thirty-seven percent (37%) of preceptors express concerns about their ability to teach as they lack formal instruction in education or experience in teaching, are unsure of learners' educational goals, or do not feel supported in their teacher role by their colleagues.

Poor student motivation, misfit of learners with their practice, the financial impact of learners, and patients' reactions to learners' presence are listed as other important barriers.

Table 9 - Barriers to Teaching

Barriers	% of all barriers mentioned	% preceptors listing this barrier	Family physicians listing this barrier		Specialists listing this barrier	
			#	%	#	%
Time	46	86	229	(41)	317	(57)
Teacher Concerns	14	37	79	(46)	91	(53)
Student Related	14	26	83	(49)	86	(51)
Negative Financial Impact	9	17	41	(39)	63	(61)
Patient Concerns	6	12	44	(64)	25	(36)
Space & Administrative Assistance	5	9	29	(52)	27	(48)
Lack of resources	3	6	14	(36)	25	(64)
Other	2	5	12	(41)	16	(55)
Geographic	1	2	5	(42)	7	(58)

g) Faculty Development Activities

i. Topics of Interest

Table 10 lists the 10 main topics of interest for faculty development overall. The topics 'Review of educational objectives for learners', 'Providing effective feedback', 'Teaching procedural skills' and 'Characteristics of effective teachers' are selected by all regions.

Appendix 10 presents the 10 most preferred subjects in each region.

Appendix 7 – Table I gives the results of each region for each topic.

For most topics, the number of years in practice does not influence preceptors' level of interest. Preceptors with more than 21 years of experience show more interest than their younger counterparts for 'University expectations of learners and preceptors', 'College of Physicians and Surgeons of Canada guidelines for teachers', 'Evaluating learner performance', 'Assessing professionalism', 'Accessing and using library resources', 'CanMEDs roles', and 'Learner in academic difficulty' (Appendix 7 – Table J). Some of these topics may reflect newer concepts that are likely more foreign to older preceptors.

Table 10 – Ten Main Topics of Interest for Faculty Development

TOPIC	Mean (1 = very interested; 5 = not interested)	SD
Providing Effective Feedback	1.81	1.10
Time-efficient Precepting	1.92	1.05
Characteristics of Effective Teachers	1.94	1.18
Principles of Small Group Teaching	1.94	1.39
Review of Learners' Educational Objectives	1.97	1.15
Effective Use of Audiovisual Aids	1.98	1.52
Creating a Teaching Portfolio	1.99	1.48
Evaluating Learner Performance	2.00	1.00
Teaching Procedural Skills	2.07	1.21
Evidence-based Medicine	2.17	1.10

Interest ranks significantly higher among family physicians for 'Review of educational objectives', 'Time-efficient precepting', 'Providing effective feedback', 'Evaluating learner performance', 'Learner in academic difficulty', and 'Characteristics of effective teachers'. 'Effective large group teaching' and 'Effective use of audiovisual aids' attract significantly more Royal College specialists (Tables 11 and 12; Appendix 7 – Table K).

Table 11 – 10 Main Topics of Interest for Family Physicians

Topics for Continuous Professional Development - Level of Interest (1-5) %						
	1	**2**	**3**	**4**	**5**	**Unsure**
Time-efficient precepting	43	39	10	4	3	1
Providing effective feedback	35	37	13	3	2	11
Assessing learner performance	33	47	11	5	2	2
Evidence Based Medicine	32	33	24	8	2	1
Characteristics of effective teachers	29	35	16	6	2	12
The difficult learner	23	35	25	11	4	2
Review of educational objectives for learners	23	38	20	5	2	12
Med-teach resources for teaching and/or clinical practice	22	41	23	11	2	1
Teaching procedural skills	19	36	22	9	2	11
Dealing with the learner in academic difficulty	18	35	24	8	3	12

Table 12 – 10 Main Topics of Interest for Specialists

Topics for Continuous Professional Development - Level of Interest (1-5) %						
	1	**2**	**3**	**4**	**5**	**Unsure**
Time-efficient precepting	29	43	15	4	4	4
Assessing learner performance	25	45	18	6	3	4
Providing effective feedback	24	46	13	4	4	9
Evidence Based Medicine	24	35	26	7	4	4
Characteristics of effective learning	23	38	20	5	4	10
Teaching procedural skills	22	39	20	5	5	9
Med-Tech resources for teaching and/or clinical practice	19	34	26	10	4	6
Review of educational objectives for learners	17	41	21	6	3	11
University expectations of preceptors and learners	17	30	28	7	7	11
Ambulatory care teaching	17	36	28	6	7	6

ii. Preferred Sites for Faculty Development Activities

Overall, 67% of the respondents prefer programs to be provided on-site locally (Figure 14). Web cast and videoconference are the next highest choices. Programs provided at a distance such as at a university site appear to be the least ideal choice.

The location of preceptors' practice influences their choice of preferred sites as illustrated in Figure 15 (Appendix 7 – Table L).

Figure 14 – Preferred Sites for Faculty Development

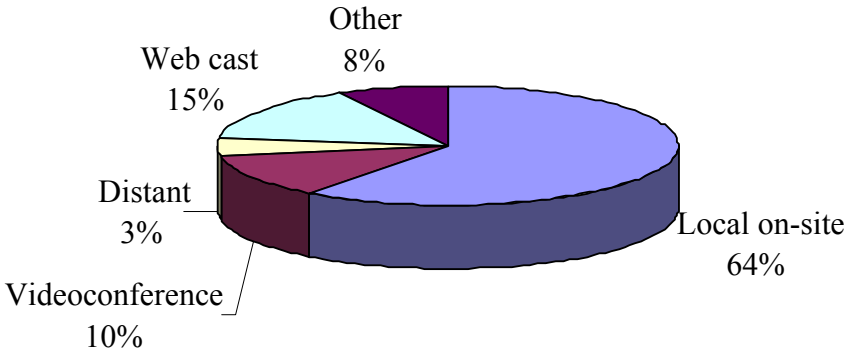
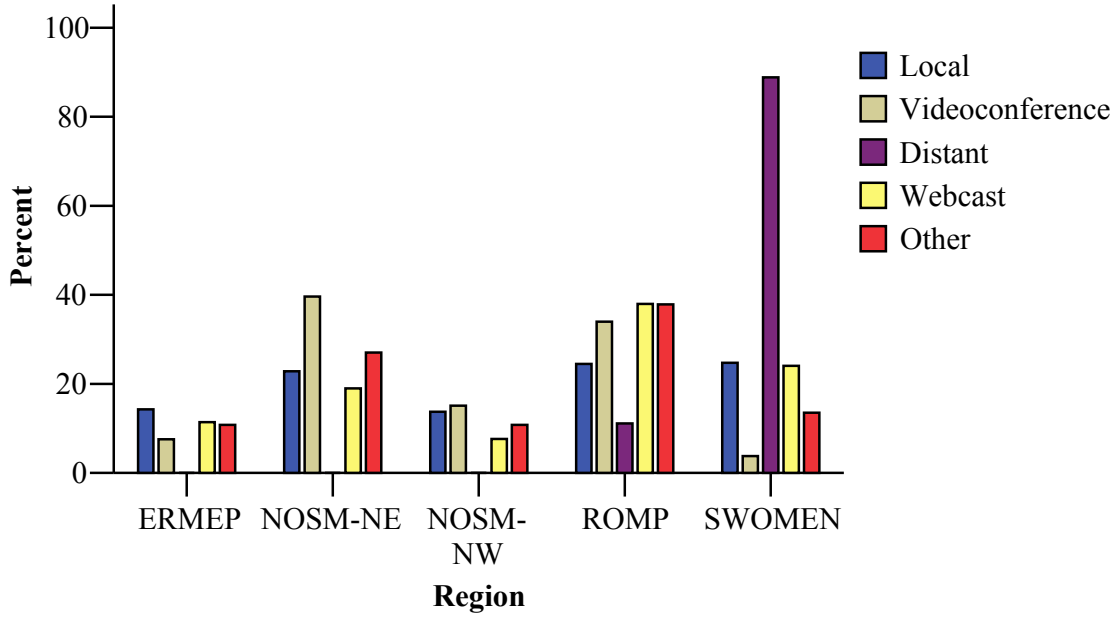


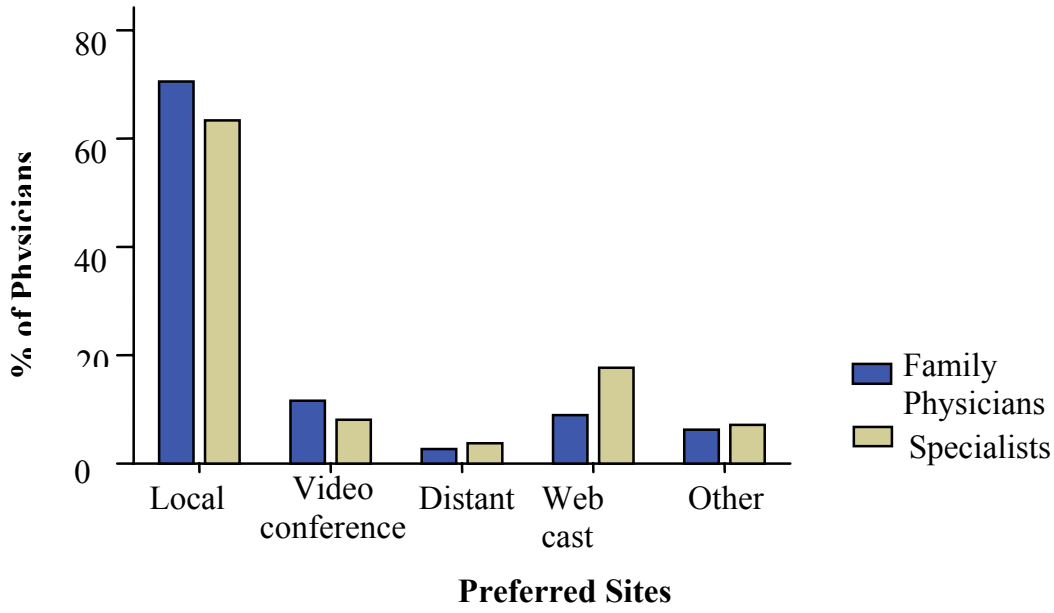
Figure 15 – Preferred Sites for Faculty Development by Region



Preferred sites for faculty development sessions are not contingent upon preceptors' number of years in practice (Appendix 7 – Table M). .

The type of practice however does impact on the preferences for faculty development sites (Figure 16; statistical analysis in Appendix 7 – Table N). Appendix 7 – Table O presents the breakdown of preferred sites by type of practice in each region.

Figure 16 – Preferred Sites in Relation to Type of Practice

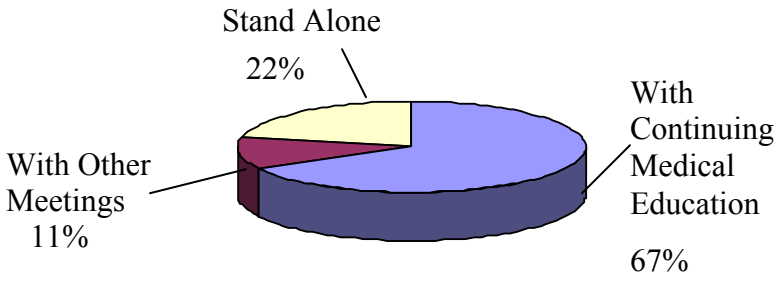


iii. Preferred Formats for Faculty Development Sessions

Sixty-seven percent (67%) of community preceptors prefer to have their faculty development sessions combined with continuous medical education activities (Figure 17). The next best option is to have these sessions as stand alone events (22%).

The choice of preferred formats is independent of preceptors' regions, years in practice, or type of practice (Appendix 7 – Tables P, Q, and R).

Figure 17 – Preferred Formats for Faculty Development Sessions



iv. Preferred Timing of Faculty Development Sessions

Although overall no clear preferences for timing of the sessions emerge from the survey, preceptors' location of practice has a definite influence (Figures 18 and 19). Appendix 7 – Table S presents in more detail the preceptors' preferred timings in each region.

Figure 18 – Preferred Timing of Faculty Development Sessions

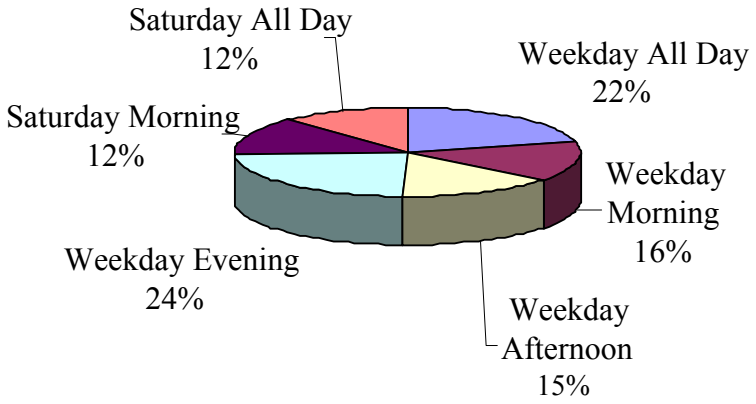
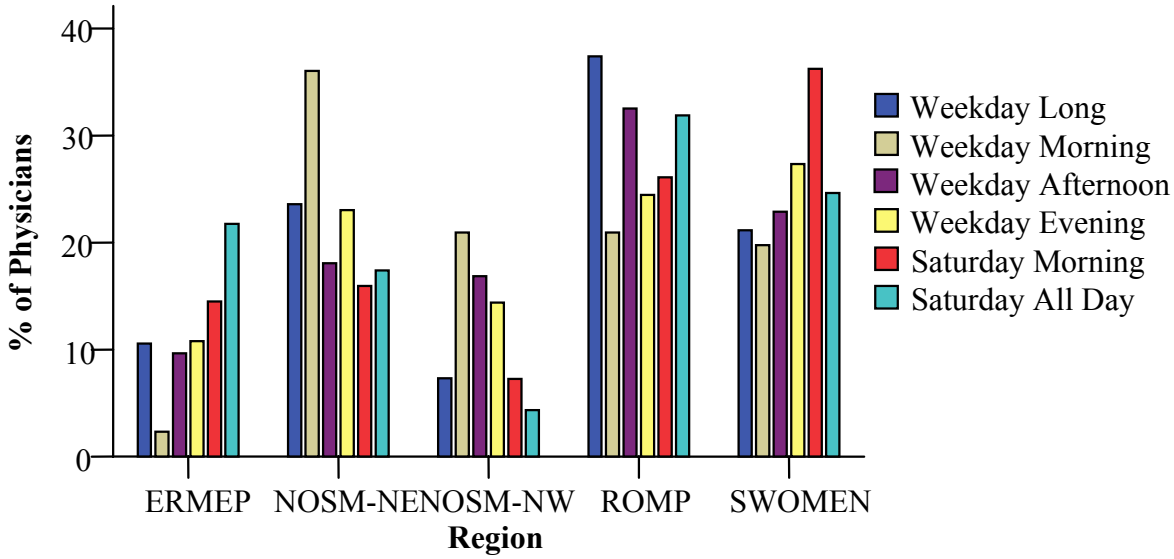
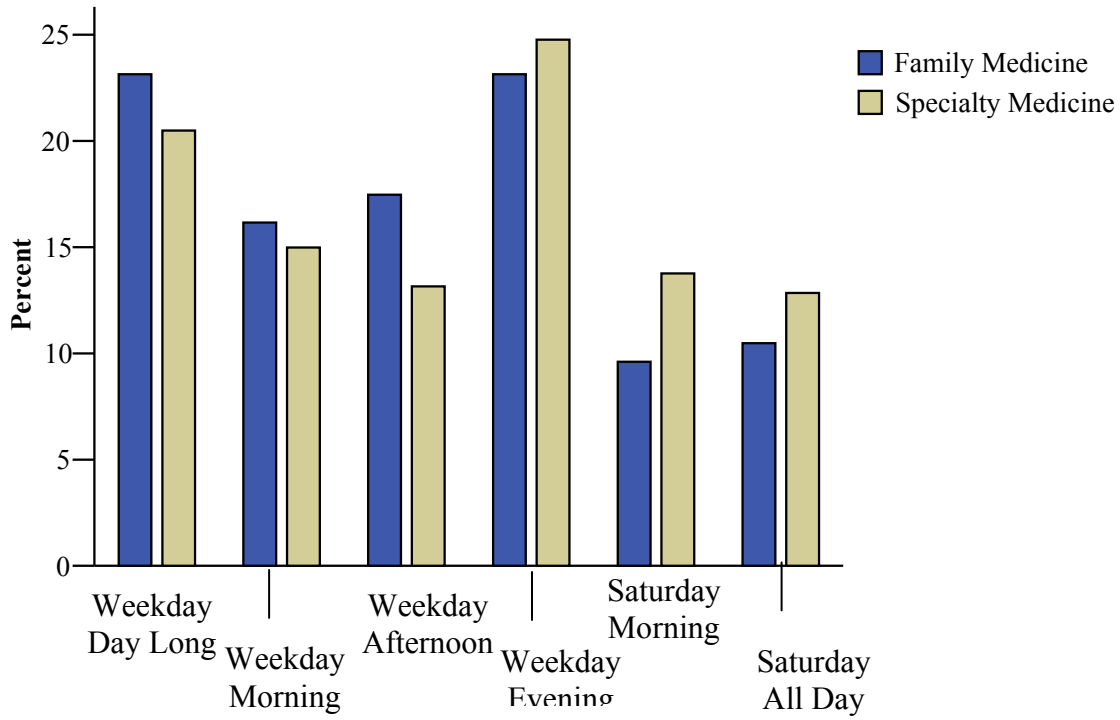


Figure 19 – Preferred Timing of Faculty Development per Region



Preferred timing for educational sessions are not associated with the number of years in practice but do relate to preceptors' type of practice (Figure 20; Appendix 7 – Tables T and U).

Figure 20 – Preferred Timing of Faculty Development per Type of Practice



h) Interest for Videoconferencing Grand Rounds in One's Specialty

Most respondents (68%) indicate an interest in participating in regional videoconferenced grand rounds (Figure 21).

The level of interest varies between regions, being higher for the NOSM North Eastern campus (Figure 22; Appendix 7 – Table V).

The length of time in practice does not impact on the level of interest for videoconference (Appendix 7 – Table W).

The type of practice also influences the level of interest for videoconferencing grand rounds, Royal College specialists expressing a higher interest than family physicians (Figure 23; Appendix 7 – Table X).

Figure 21 – "I Would Enjoy Participating in Videoconferenced Grand Rounds in My Specialty"

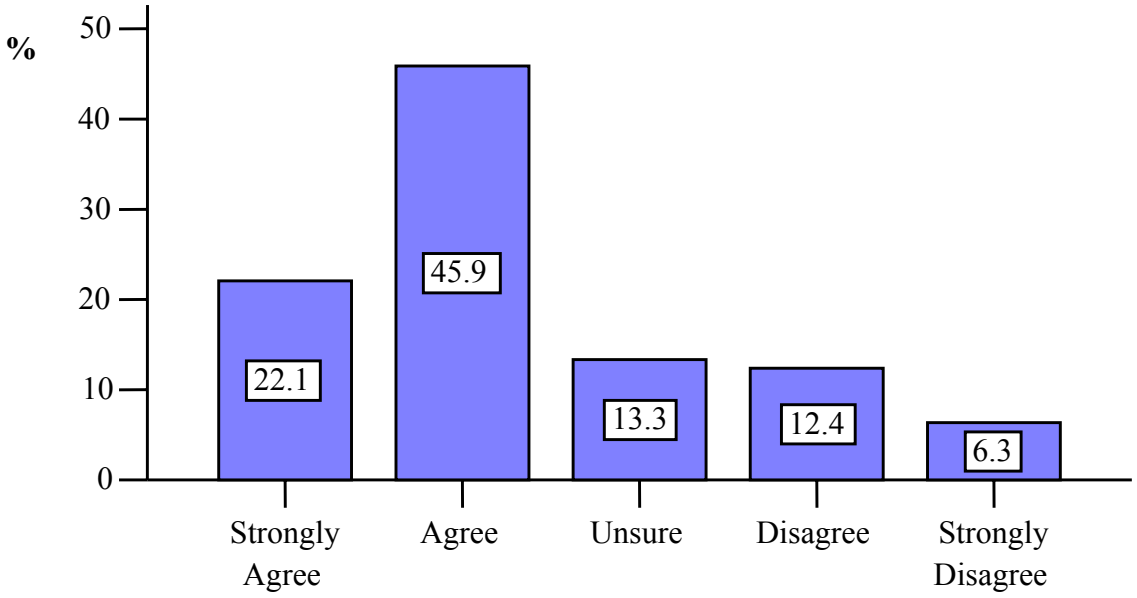


Figure 22 – "I Would Enjoy Participating in Videoconferenced Grand Rounds in My Specialty" per Region

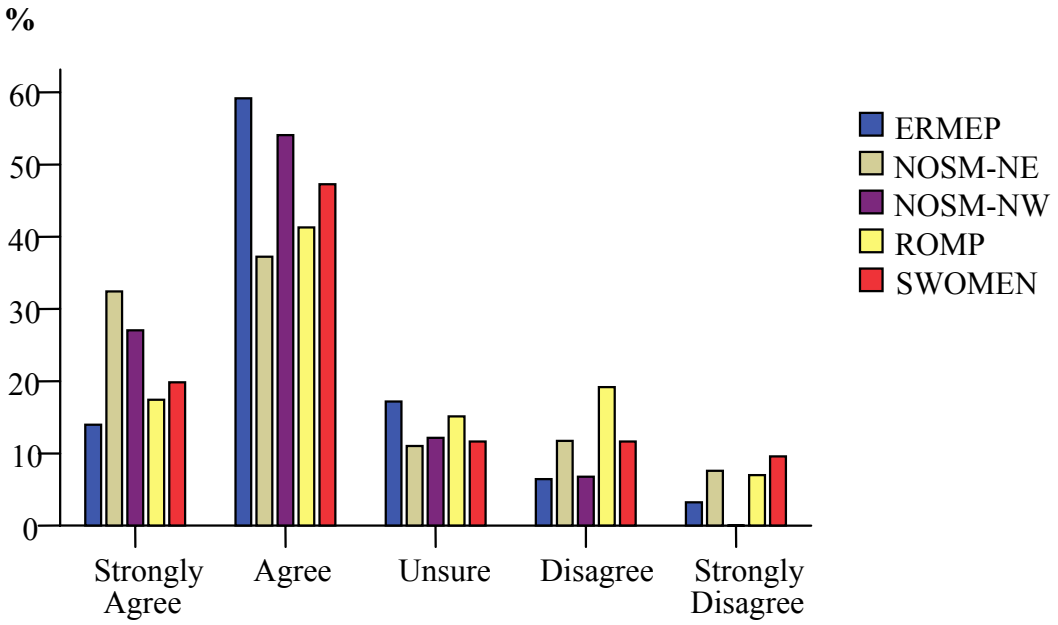
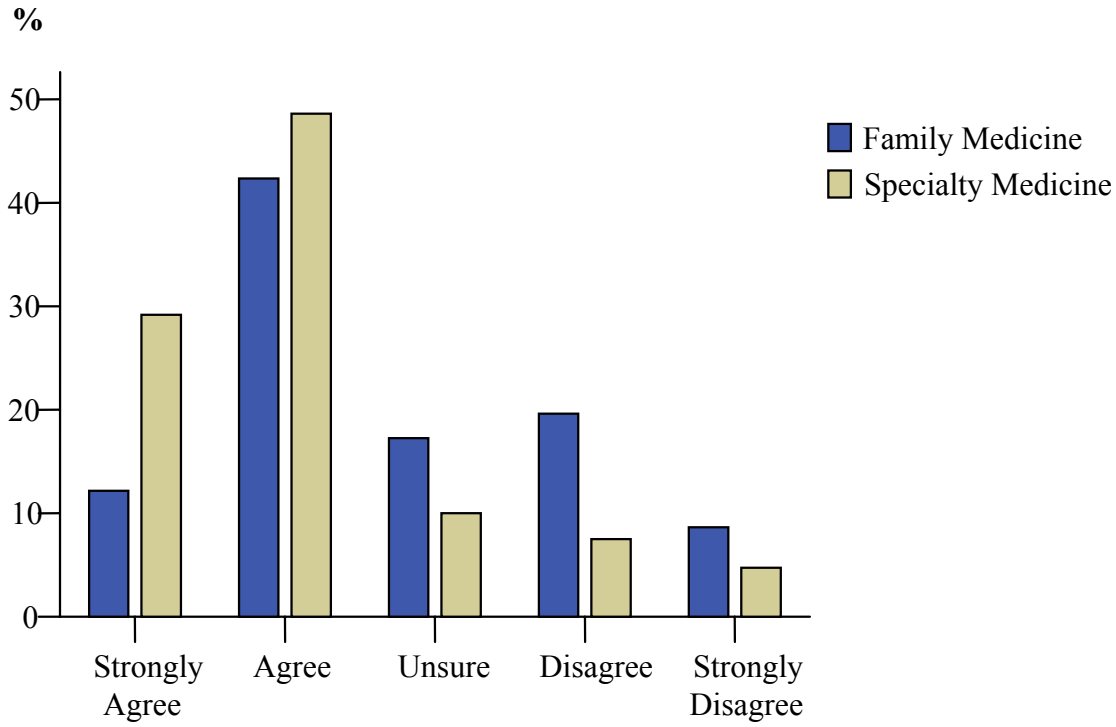


Figure 23 – "I Would Enjoy Participating in Videoconferenced Grand Rounds in My Specialty" per Type of Practice



5. Focus Group Results

The focus groups represent a cross section of level and type of experience as a community-based preceptor (Table 13). A number of participants also hold leadership roles with respect to directing and coordinating the activities of community-based preceptors in their area.

Table 13 – Profile of Focus Group Participants

Focus group #	Family Physicians			Royal College Specialists		
	Level & type of experience as a community-based preceptor					
	5 yrs or less	6 yrs or more	Leader. Role	5 yrs or less	6 yrs or more	Leader. Role
Eastern Region Medical Education Program						
1	2	3				
2				2	2	
3					3	
Rural Ontario Medical Program						
4				1		1
5	1	1	1			
6			1	1	3	
Northern Ontario School of Medicine						
7		3				
8		2				
South Western Ontario Medical Education Network						
9			1		1	2
10	1					1
TOTAL	16			17		
Total number of participants				33		

The themes that emerged from the focus groups with respect to needs for faculty development are presented as follows:

a) Type and level of involvement as a community-based preceptor
b) Teaching challenges
    i. The increasing demand for teaching undergraduate medical students
    ii. Length of community placement
    iii. Balancing teaching and clinical priorities

iv. Lack of adequate space for teaching
v. Lack of feedback regarding teaching
vi. Commitment of students to the community experience
vii. Involvement of other health professionals in teaching medical learners

c) Participation in faculty development sessions
   i. Barriers to participating in faculty development sessions
   ii. Incentives to participating in faculty development sessions
d) Recommendations for the "Ideal" system

a) Type and level of involvement as a community-based preceptor

When asked to describe their current teaching, approximately two thirds of the focus group participants refer to teaching residents. Most of the learners are family practice residents although residents in orthopedics, obstetrics & gynecology, and internal medicine are also identified. The number and length of time spent with residents vary from preceptor to preceptor. Generally, rotations are described as ranging from 1 – 2 months. The remaining one third of the teaching experiences described includes students in the clerkship or pre-clerkship stage of the undergraduate curriculum. The number of learners per preceptor ranges from a few per year to having learners all year around. Not surprisingly, those preceptors with more experience and with leadership roles have the most number of learners.

Generally, the learning experience consists of the student getting as much exposure as possible to all aspects of the specific clinical practice of the preceptor. For the residents this exposure ranges from following the preceptor throughout all aspects of their practice e.g. participating in inpatient rounds, office visits, home visits, visits to nursing homes, to assisting with surgery and obstetrics to providing emergency room and call coverage. A number of preceptors comment that the emergency room provides the best learning experience for learners. Only one preceptor mentions being involved in providing formal seminars for medical students.

b) Teaching Challenges

The following challenges are noted by the preceptors with respect to teaching medical students and residents

i. The increasing demand for teaching undergraduate medical students

It is anticipated that providing learning opportunities to undergraduate medical students is an area of increasing demand. "There seems to be a shift in schools to community placements for undergraduate rotations and so specialists in community clinics are being asked to teach" (Focus Group, February 21, 2006). Preceptors anticipate that as the expectation increases to take on medical students earlier in their learning experience, there may be a need to provide more didactic teaching sessions. Preceptors do not feel prepared to do this particularly with respect to time demands e.g. it could interfere with their ability to see patients and the operation of their practice. Indeed they refer to the needs of preclerkship and clerkship students as being significantly different from those of residents. As one preceptor states ". . . now we are being asked to teach, not just precept" (Focus Group, February 21, 2006).

ii. Length of community placement

Ensuring adequate rotation time is also noted as an issue. One month is not seen to be enough time for the resident to be exposed to the full range of clinical scenarios, to experience any continuity of patient care or to become fully immersed in the professional and social culture of the community. As well, preceptors do not feel that one month provides adequate time to assess clinical skills and to provide learners with quality feedback. This is noted as being particularly problematic when learners take one week of holidays as part of their one month rotation in the community. As one preceptor states "Students need time to soak into the community" (Focus Group, April 18, 2006).

iii. Balancing teaching and clinical priorities

Preceptors also note that there is a limit to how many students and residents they can accommodate. Some of the participants expressed that it is unrealistic to expect that they can take students and residents for more than two months out of the year. Many preceptors note that the community situation is very different from the academic health science centre in that community preceptors tend to have only a few learners at a time. Consequently, there is not the opportunity for senior learners to teach more junior learners e.g. a vertical teaching system. Therefore, teaching is much more time intensive for preceptors in the community and it is difficult to take on as many students and residents e.g. if there are 4 clerks doing a rotation in a community, a preceptor cannot take on any residents unless the resident is teaching as well. As well, preceptors speak of the challenge of having a learner with them at all times "when you have someone all the time without a break then it makes getting the work done difficult" (Focus Group, April 26, 2006).

iv. Lack of adequate space for teaching

Infrastructure issues are also raised in that space was not always readily available to accommodate learners.

v. Lack of feedback regarding teaching

Preceptors also note the need for timely feedback on their teaching with respect to the learning experience of the students and residents. Generally, preceptors report that they do not receive feedback from the universities regarding the experience of the student in the community.

vi. Commitment of students to the community experience

Preceptors note the importance of having learners committed to and genuinely interested in their learning experience in the community. "Only want to teach students who are interested in community-based practice and students who really want to be there" (Focus Group, April 18, 2006). The preceptors note that it is critical for universities to show the value of the rotation as part of

the learning experience and the community preceptors as a vital partner in the delivery of health care services. It is detrimental to the learning experience if the community experience is seen as just as another placement or a placement because there aren't enough learning spaces on campus.

Learning from students, remaining up-to-date and the camaraderie of having students in the community are noted as benefits. The need to get more preceptors involved is raised. As one participant mentions "people think that teaching is more onerous than it is, but having residents actually allows them to see more patients, not less, so it is a perception, not reality" (Focus Group, April 24, 2006).

vii. Involvement of other health professionals in teaching medical learners

Only three of the participants indicate that being taught by other health professionals is included as a mandatory aspect of the community-based placement experience. An additional two participants indicate that including nursing professionals as part of the formal learning experience is in the process of being formalized. For example, in one hospital a workshop is being developed specifically for the purpose of supporting nurses in the development of their teaching skills. Over 50% of the respondents, however, indicate that interaction with other health professionals is an informal, ad hoc but valued part of the learning experience. Included as other health professionals are nurse practitioners, physiotherapists, nurses, optometrists, ultrasound technicians, pharmacists, and midwives. Most of the participants indicate that it is up to the learners to take the initiative and to request exposure to other health professionals. If requested, however, all indicate that accommodation would be made during their community-based placement.

c) Participation in Faculty Development Sessions

Two thirds of the focus group participants have been involved in some type of faculty development over the past two years, or are planning to attend a session within the next month. Of those participating, most have attended an annual workshop organized either through a university, ROMP or ERMEP. Generally,

the topics of the workshops are decided in consultation with the preceptors. A few preceptors also mention attending sessions provided in conjunction with other annual conferences e.g. College of Family Physicians, Society of Rural Physicians of Canada. One preceptor notes participating in the general faculty development sessions provided through the university for the medical school faculty.

One third of the participants have either not attended a session in the past three or more years or have never attended a session at all. Those who have not participated tended to be recent graduates and newer practicing preceptors. Generally these preceptors feel prepared to teach due to the immediacy of their own learning experience "I just think back on my own experience as a resident and say what I would have wanted" (Focus Group, May 17, 2006). There is also a perception amongst this group that teaching does not require any kind of formal preparation "Teaching is a bit of a light topic. I was taught in a variety of ways so there is no one best way to teach. By virtue of our experience as students, we already know how to teach" (Focus Group, May 8, 2006). Indeed, it is stated that the "best way to learn about teaching is by having students with you" (Focus Group, May 4, 2006). On the whole Royal College specialists tend to participate less in faculty development than family physicians.

i. Barriers to Participating in Faculty Development Sessions

It is agreed that time is the greatest barrier to attending faculty development sessions. Preceptors report that after attending a session "It takes a few weeks to catch up" (Focus Group, February 16, 2006) and that "I work over my lunch hour, stay later on weekdays, or bring the work home in order to accommodate my time away" (Focus Group, February 16, 2006). In addition, specialists report scheduling their clinics up to a year in advance making it difficult to get away for a recently announced or arranged faculty development session. The need to schedule so far in advance could account for the lower participation in faculty development sessions as described in the previous section. The "need to be able to predict and plan" with respect to being able to attend faculty development sessions is raised by a number of preceptors (Focus Group, May 4, 2006).

Other barriers noted are:

- Competing interests with respect to clinical sessions where staying up-to-date clinically always take precedence over faculty development sessions.

- Family pressures making it hard to balance everything and to get away for faculty development sessions.

- A lack of coordination between the university and the community where preceptors do not know who is in charge of faculty development and/or the expectations of preceptors. It is noted that with respect to faculty development the interaction with university tend to be passive e.g. one-way communication from the university to the preceptor.

- The culture of the hospital where "being a teacher is not a vital part of the hospital" (Focus Group, February 21, 2006).

- The travel distance required to attend faculty development sessions. This issue is noted primarily by preceptors affiliated with the Northern Ontario School of Medicine (Focus Groups, May 4 & 8, 2006).

ii. Incentives to Participating in Faculty Development Sessions

Appropriate compensation, access to library resources and formal recognition emerge as the top three incentives for participation in faculty development sessions and serving as a community-based preceptor. These are described as follows:

Appropriate compensation is raised most often as the greatest incentive for participating in faculty development sessions. Particularly "the more that teaching becomes an expectation of practice, the more important it is for community-based preceptors to be adequately compensated" (Focus Group, April 18, 2006). Appropriate compensation is described as ensuring that time spent teaching is reimbursed at a level equivalent to clinical practice.

Access to library resources is also mentioned frequently particularly with respect to electronic access to recent journals. The resource most often mentioned is "Up-to-Date". Up-to-Date is a clinical reference resource that is provided on a CD-ROM as well as online. It is noted that not having access places the community preceptors at a disadvantage, since learners have access to Up-to-Date when they come into the community.

Providing formal recognition for community-based preceptors is also raised as an important incentive. Suggestions range from receiving certificates and plaques acknowledging attendance at a session, to being formally appointed as part of the faculty at the academic health science complex. Formal appointment includes not just recognition but also participating in the activities of the university. In the words of one participant "I would like to be affiliated with the medical school to be part of the bigger picture" (Focus Group, May 8, 2006). It should be noted, however, that faculty affiliation is not important for all focus group participants. "If I wanted to have an academic career, I would be an academic" (Focus Group, April 26, 2006).

d) Recommendations for the "Ideal" System

When asked to describe the ideal approach to faculty development, focus group participants systematically identify the need for a combination of approaches. Comments are evenly split between the desire for an annual workshop at a central location, providing events on-site in the community and responding to needs on a one-to-one, face-to-face basis. The comment is made that we "will not find a one size fits all approach" (Focus Group, April 19, 2006). Throughout the focus groups, however, direction is provided regarding ideal features of the various venues (Table 14).

A preference for using technology for faculty development does not emerge as a strong theme in the focus groups. Comments are equally split between the desire to use technology versus the desire for venues offering a higher degree of personal interaction. In particular, videoconferencing is described as being a difficult and impersonal setting for learning.

The main strength of videoconferencing is described as providing up-to-date information on clinical issues. The tendency for videoconferencing to be a more passive form of communication is identified as the primary drawback with respect to faculty development. It is noted, however, that videoconferencing will be more useful as the number of learners increases in the community. Videoconferencing is described as providing a vital link between the university and the community, thereby creating a more cohesive and collaborative system. It is felt that this link could potentially enhance the experience for learners in the community. As one participant states "the use and availability of technology helps with concerns that learning in a rural situation may be outmoded since the adoption of technology allows for teaching and learning experience to remain current" (Focus Group, May 17, 2006).

Table 14 – Recommended Qualities for Faculty Development Programs

Faculty Development Venue	Recommendations
Annual Workshop	- Must be planned and communicated well in advance (at least a year) - Time to interact with colleagues is as important as the specific sessions - Learning from the experience of colleagues is key - If held on a weekend it must be a family friendly event - Event should not be affiliated with any pharmaceutical company
Local, On-site Event	- Prefer practice-based small group teaching - Should be a time when physicians share their experiences in small groups - Could produce a local session with scenarios - The topic must be very specific with well-defined goals which can then be discussed with an expert - 3 hours in the evening over supper is ideal with about 15-20 people attending
Face-to-face	- Want involvement but at own impetus - Program should be individualized - Need learning to fit into the practice schedule and be responsive to specific needs at a given point in time - Face-to-face contact should be with university faculty who also teach students, not just those in administrative positions

A few of the focus group participants indicate that they would "prefer to read or do interactive learning on the internet" (Focus Group, April 19, 2006). Being able to access information when it is most convenient for the individual preceptor is described as the main advantage of using web-based material. It is suggested that having modules available that could be completed at home would be useful. The modules should be short and focused e.g. "The One-minute Preceptor". It is also noted that computer technology e.g. webcams or specific software could be used to conduct face-to-face meetings without the need for travel.

Regardless of the specific venue for faculty development, the focus group participants also comment that:

- **The quality of events and content is critical**

  The participants note that it is important that the sessions be practical and relevant, based on actual practice not theory. The suggestion is made that local scenarios be used to develop small group topics for discussion which could then be discussed with an expert in the area.

- **A mix of topics is best**

  No single predominant area of need emerges from the focus group discussions. The following topics are highlighted: working with difficult learners e.g. learners who lack knowledge and/or interest, providing negative feedback, how to get research into practice, how to teach in a busy practice environment, examination techniques and skills. Generally participants desire a mix of topics.

- **The sessions must be provided by credible faculty**

  Credibility is defined as those who have had experience in clinical practice and therefore, can understand the difficulty of balancing the service pressures with teaching.

- **Teaching should become a standard aspect of physician practice**
  It is suggested that teaching needs to become an accepted part of the role of the physician. Introducing teaching and learning in the undergraduate curriculum is described as the ideal approach for enhancing the complement of community-based preceptors over time. As an immediate strategy, it is suggested that acquiring specific teaching credits could become part of the process of becoming a community-based preceptor.

- **A comprehensive, systematic, collaborative approach is required**
  It is noted that current approaches to faculty development are provided based on immediate needs. Although most delivered sessions are appreciated and well received, it is suggested that faculty development be part of a comprehensive, systematic approach to developing the teaching skills of community-based preceptors. The possibility of identifying a select number of critical topics, which could then be offered over a period of time, which upon completion would provide a designated teaching credential for community-based preceptors, is identified as a potential focus for future faculty development activities. Further, it is recommended that creating such a comprehensive approach needs to be a deliberate plan sorted between university and community-based preceptors. The possibility of having an education person locally, whose responsibility would be faculty development as well as organizing rotations, as part of the comprehensive system, was also suggested.

Overall, the need for enhanced interaction between the university and community with respect to faculty development activities is raised. Included is the desire to be kept up-to-date with respect to curricular developments at the university as well as being informed of faculty development opportunities available through the university. Preceptors, however, do not want to be inundated with information and suggest that semi-annul or annual newsletter would be ideal.

The increased competitiveness for community-based preceptors accompanying the increased demand for community placement is also noted as an issue e.g. some preceptors are being approached by more than one school or program. Preceptors state that they prefer to be contacted by just one organization and that having too many players in the system will make it difficult to provide appropriate placements. One participant describes the current trend as moving towards "creating individual fiefdoms" (Focus Group, April 18, 2006).

DISCUSSION

Our study results support the literature findings. Namely, Ontario preceptors enjoy teaching and find teaching rewarding. They appreciate the idea of belonging to a larger structure and of being part of a whole. They value tangible recognitions such as faculty privileges at the school and access to library resources. The perceived value of faculty appointments is variable. Financial compensation is notably more important to our preceptors than what is currently expressed in the literature.

As in all published studies, time remains the principal barrier to teaching. Some of the barriers mentioned by preceptors reveal a lack of understanding of what is expected from clinical preceptors. For example, some preceptors mention a "fear of public speaking', or a "dislike of large group presentations" as obstacles to their teaching. These misconceptions should be addressed early in the recruitment of preceptors. The expectations of schools and programs need to be explicitly stated.

Ontario preceptors value faculty development activities but wish to be reimbursed for the lost income incurred from attending the development sessions.

Topics of interest to our preceptors reflect those identified in the literature. Perhaps because the majority of preceptors have no formal instruction in education, the basic education topics (e.g. providing feedback, characteristics of effective teachers) are the most popular.

Ontario preceptors stress the importance of flexibility in the planning and delivery of faculty development events and welcome the availability of several formats and timing. Although seemingly popular in the literature, sessions held over a weekend do

not attract our preceptors. Sessions held locally in the community and preferably combined with CME/CPD activities would be ideal.

ANALYSIS OF GAPS IN THE PROVISION OF FACULTY DEVELOPMENT FOR COMMUNITY PRECEPTORS IN ONTARIO

This study identified several discrepancies impacting on faculty development needs of Ontario community preceptors. The essential concerning issues are listed here.

1. Most preceptors have not received any formal instruction in education and yet are expected to teach.
2. The foundational knowledge and skills related to teaching and learning required to function as an effective community preceptor have not been identified.
3. Teaching expectations of community preceptors have not been clearly delineated.
4. Learners' evaluations of their learning experience in the community are not shared with community preceptors in a timely fashion. It then becomes difficult for preceptors to identify their faculty development needs.
5. Faculty development activities hosted by medical schools or programs are often offered in central locations e.g. annual workshops. Community preceptors prefer their professional development sessions to be held locally, near their practice location.
6. Preceptors are not sufficiently involved in the planning and delivery of faculty development sessions beyond providing a need assessment.
7. Schools and programs do not effectively collaborate at this point in the planning, delivery, and evaluation of faculty development programs.
8. A robust incentive system to attend faculty development session is currently lacking.

RECOMMENDATIONS FOR THE PROFESSIONAL DEVELOPMENT OF ONTARIO COMMUNITY FACULTY

1. A coordinating body should be established which encompasses the six medical schools (Ottawa, Queen's, University of Toronto, McMaster, NOSM, UWO/SWOMEN) and two organizing bodies (ERMEP, ROMP). The primary function of this group would be to facilitate collaborative efforts in the provision of faculty development for community-based preceptors across the province. Addressing the recommendations in this report would be a key activity of this group. The ongoing evaluation of faculty development efforts would also be an important task. For example, factors that affect participation in faculty development, as well as measuring the impact of programs could also be a focus of activity. Student evaluations of community experiences could also be used as part of the process for evaluation. This body would also be responsible for liaising with national groups responsible for faculty development of community-based preceptors.
2. A core program of faculty development topics should be created. This program should encompass the needs expressed by the preceptors in this study as well as priority areas identified by schools and programs. More specifically, the list of topics should include but is not limited to:
    - ***a)*** Providing effective feedback
    - ***b)*** Time-efficient precepting
    - ***c)*** Characteristics of effective teachers.

    'Time-efficient precepting' should provide strategies for balancing clinical and teaching demands within a busy practice environment.

    These faculty development sessions should be delivered on site, with the involvement of local preceptors in the planning and delivery. They could be combined with site visits.

    Completion of the core program should lead to a formal recognition by medical schools.
3. Orientation should be provided to all new community-based preceptors. As part of the orientation process, medical schools should provide preceptors

with clear expectations on their teaching role. These expectations should cover learning objectives, types of teaching (didactic vs. practical clinical training), and assessment methods.

4. As part of ongoing faculty development efforts, medical schools should design a system where community sites are visited at regular intervals to provide support, identify precepting issues, and respond to ongoing needs for faculty development. Schools and programs should identify the specific resources required to put this system in place.
5. Medical schools should review learners' evaluation of their community experience and extract pertinent constructive comments. These comments should be discussed with community preceptors in the context of the regular site visits mentioned above. The feedback should also provide comparators of other evaluations in other community rotations and with teaching hospital rotations.
6. Preceptors' expenses to attend faculty development should be reimbursed. As well, financial compensation for lost clinical income should be provided.
7. Teaching skills should be integrated throughout the medical curriculum, at both the undergraduate and postgraduate levels, so that new graduates feel ready to accept learners early in their practice.

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APPENDIX 1: QUESTIONNAIRE TO DISTRIBUTED MEDICAL EDUCATION DIRECTORS OF ONTARIO MEDICAL SCHOOLS AND TO RURAL MEDICAL PROGRAM DIRECTORS

Rural Physician Preceptor Development Needs Assessment (RPPDNA)

PLEASE FAX THE COMPLETED QUESTIONNAIRE TO:

THE OFFICE OF HEALTH SCIENCES EDUCATION, QUEEN'S UNIVERSITY
1-613-533-6642
BY **WEDNESDAY JANUARY 4, 2006**

PLEASE INDICATE YOUR PREFERRED DATE AND TIME FOR A FOLLOW-UP
PHONE INTERVIEW. The interview will require <u>at most</u> one hour of your time.

DATE	AVAILABLE	
	YES (Please indicate preferred times)	NO
Friday January 6, 2006		
Monday January 9, 2006		
Tuesday January 10, 2006		
Wednesday January 11, 2006		
Thursday January 12, 2006		

Contact Name: _____

University/Organizational Affiliation: _____

Contact Number: _____

Rural Physician Preceptor Development Needs Assessment (RPPDNA)

Introduction:

The overall purpose of the project is to identify the needs related to educational skills development and the supports required by rural physician preceptors. As the first step in data gathering, the results from this questionnaire will be used to describe the number, types, and location of rural preceptors currently utilized across the six medical schools in Ontario. Results from the questionnaire will also provide an initial description of the degree to which rural placements and exposure to issue in rural medicine are featured in both the undergraduate and post graduate programs across the various medical schools in Ontario.

Definitions:

Many definitions exist with respect to the quality of "rurality" (see Kralj, 2000). Consequently, rather than spend time engaging in the debate over what is considered to be "rural", the first level of data gathering will focus on identifying community-based preceptors.

A *community-based preceptor* is defined as a physician whose primary responsibility is to provide patient care in a community setting and who has agreed to provide education as an additional function to their patient care responsibilities. Community-based preceptors may be provided a stipend but are not directly employed by the university medical school. Clearly this definition does not take into account the extent to which a placement could be considered to be rural. Once the number and locations of community-based preceptors have been determined, the issue of rurality will be examined in light of the 2004 Rurality Index Scores for Ontario.

Kralj, B. (2000). Measuring "rurality" for purposes of health-care planning: an empirical measure for Ontario. Ontario Medical Review, 33-52.

Next Steps:

Based on the overview of the number of community-based preceptors across Ontario, the next steps in the needs assessment process will be determined.

Medical School: _____

1. Number of Community-based Preceptors

Please complete the following table indicating the numbers of community-based preceptors who are: (a) family practitioners and (b) specialists. When indicating numbers of specialists, please use the key provided at the end of the questionnaire.

The example shows a town with 3 General Practitioners, one Psychiatrist and two Obstetrics & Gynecologists available as community-based preceptors.

Location of Practice (Name of Town or County)	Number of General Practitioners	Number and Type of Specialists (Please use the key provided)					
ANYWHERE	3	1 – P	2 - OG				

2. CURRENT AND ANTICIPATED FACULTY DEVELOPMENT FOR COMMUNITY-BASED PRECEPTORS

Please indicate which of the following programs have been offered or will be offered during the current academic year (September 2005 – August 2006) to support the educational role of community-based preceptors.
If a program is not currently offered, please indicate the extent to which you anticipate a future requirement for this type of program.

	Offered Current Academic Year		Anticipated Future Requirement				
Formal Programs	Yes	No	High priority	Medium priority	Low priority	Not Required	Not Sure
University expectations of preceptors							
CPSO guidelines for teachers							
Review of educational objectives for learners							
Time-efficient precepting teaching							
Providing feedback to students							
Assessing learner performance							
The learner (medical student/resident) profile							
Assessing professionalism							
Ethical principles in medical teaching							
Med-tech resources for teaching and clinical practice							
Availability/ effective use of library resources							
CanMEDS roles							
Dealing with the learner in academic difficulty							
The difficult learner							
Teaching procedural skills							
Ambulatory care teaching							
Characteristics of effective teachers							
Principles of adult learning							
Creating a teaching portfolio							
Evidence-based medicine							
Principles of small group teaching							
Large group teaching							
Effective use of audiovisual aids (e.g. PPT)							
Writing good exam questions							
Other: Please list:							

3. INCENTIVES AND REWARDS FOR COMMUNITY-BASED PRECEPTORS

Please indicate the incentives or rewards currently provided to your community-based preceptors.

If an incentive is not currently provided, please indicate if you think this would be a desirable incentive for your community-based preceptors.

	Currently Provide		Would like to provide		
Description	Yes	No	Yes	No	Not Applicable
Financial remuneration or stipend					
Conference sponsorship					
Access to library services/resources					
Videoconferencing access					
Audiovisual support					
Medical Technology Support					
CPD credits					
Recognition plaques					
University/Medical School appointments					
Tuition support – personal					
Tuition support - family					
Invitation to serve on medical school committees e.g. admissions					
Access to curriculum notes/schedule					
Access to discipline specific grand rounds or subspecialty rounds					
Free parking					
Access to athletic facilities					
Provision of textbooks					
Provision of office supplies					
Medical school bookstore discount					
Computer linkage for library/email access					
Other: Please list:					

4. COMMUNITY-BASED PLACEMENTS IN THE CURRICULUM

(a) Community-based placements in the undergraduate medical curriculum.

Is it mandatory for your undergraduate medical students to spend time in community-based placements?

If so, at what point does this occur in the curriculum and how many weeks do they spend in the community-based placement?

If community-based placements are not mandatory, is there an opportunity for undergraduate medical students to spend time in the community?

How often do students take advantage of this opportunity?

(b) Community-based placements in the post-graduate curriculum

Is it mandatory for your post-graduate medical students to spend time in the community?

If so, at what point does this occur in the curriculum and how many weeks do they spend in the community placement?

If community placements are not mandatory, is there an opportunity for post-graduate medical students to spend time in the community?

How often do students take advantage of this opportunity?

(c). Please provide examples where meeting the health needs of the rural population and/or practicing in a rural setting is addressed in the undergraduate medical curriculum (e.g. lectures, workshops, invited speakers etc.)

(d). Please provide examples where meeting the health needs of the rural population and/or practicing in a rural setting is addressed in the post-graduate medical curriculum (e.g. lectures, workshops, invited speakers etc.)

5. Please describe the process in place for identifying ongoing professional development needs in relation to teaching medical students and residents for the community-based preceptors?

6. Please describe the process that is in place to provide community-based preceptors feedback on their teaching effectiveness?

7. Are your community-based preceptors provided with a faculty appointment? If yes, what is the process for appointment and renewal? Do you provide support for creating and updating documentation (e.g. CV, teaching dossier?)

8. How do you identify new community-based preceptors?

9. To what extent do you anticipate your needs for community-based receptors to change

(a) over the next 2 years

(b) over the next 5 years?

10. Who else should we be contacting at your medial school with respect to this project?

SPECIALTY KEY
Note: If a specialty area is not listed, please write in the name of the specialty of the community-based preceptor

Type	Key
Anesthesiology	A
General Surgery	GS
Orthopaedic Surgery	OS
Emergency Medicine	EM
General Internal Medicine	GIM
Psychiatry	P
Obstetrics and Gynaecology	OG
Pediatrics	PE
Pathology	PA
Physical Medicine and Rehabilitation	PM
Radiology/Imaging	R
Urology	U

APPENDIX 2: INVITATION LETTER TO COMMUNITY PRECEPTORS

School or Rural Medical Program Logo

January 4th, 2006

Dear Dr XXX,

The Office of Faculty Development at Queen's University is conducting a province-wide study to identify the community preceptors' needs for support and educational programs. The Southwestern Ontario Medical Education Network is an essential partner in this effort.

Our records identify you as a preceptor who has taught for more than four weeks in the past 12 months. Please take a few minutes to complete this survey, "**Assessment of Regional Educators Needs for Development of Teacher Role**". Your valuable input will be integral in the design and provision of Continuing Professional Development programs for regional educators in Ontario.

Could you please fax or return the completed survey to

Manager Name
School Distributed Medical Education or Rural Medical Program Office
Email:
Fax:

Our office will be contacting you in a few days as a reminder.

If you have any questions about your rights as a research subject please contact Dr Albert Clark, Chair of the REB, Queen's University, at 613-533-6081.

The study investigators are

Dr Elaine Van Melle

Dr Danielle Blouin

Dr Gene Dagnone

Dr Lewis Tomalty

from the Offices of Health Sciences Education, Faculty Development, and Regional Education at Queen's University. Please direct any question related to this survey to (613) 533-6000 ext 77730 (Dr Van Melle) or to (613) 533-6000 ext 78344 (Dr Blouin).

Thank you for assisting our efforts to provide for your Continuing Professional Development.

Signed by:

Director

School Distributed Medical Education or Rural Medical Program Office

Address

APPENDIX 3: ASSESSMENT OF REGIONAL EDUCATORS NEEDS FOR DEVELOPMENT OF TEACHER ROLE

1. **Years in clinical practice** _____

   A. **Primary specialty:** *(please identify e.g. Paeds, Family)* _____
   B. **Hours/week involved in teaching medical students or residents** _____

2. **Please indicate what percentage of your teaching (of medical students or residents) happens in the following areas (total 100%):**

In pt ward	____%	Home visits	____%	ED	____%
Out pt clinic	____%	Institutional visits	____%	Office	____%
Large classroom	____%	Small group teaching (PBL, Clinical skills, etc)	____%		

3. **Prior formal instruction in education** *(local courses, regional courses, master's degree)*

   ☐ No
   ☐ Yes (*name courses/institutions)*

   _____

   _____

   _____

4. **Please indicate the extent to which you agree or disagree with the following statements:** *(SD-strongly disagree, D-disagree, A-agree, SA-strongly agree, unsure)*

	SD	**D**	**A**	**SA**	**unsure**
I am interested in teaching	☐	☐	☐	☐	☐
I find teaching to be rewarding	☐	☐	☐	☐	☐
I am comfortable teaching	☐	☐	☐	☐	☐

5. **Please indicate three barriers you feel might be a challenge when taking on a teaching role:**

   1. _____
   2. _____
   3. _____

Code:

6. For each of the following topics for Continuous Professional Development (CPD), please indicate your level of interest:

(1 very interested, 3 neutral, 5 not interested)

	1	2	3	4	5
University expectations of preceptors and learners					
CPSO guidelines for teachers					
Review of educational objectives for learners					
Time-efficient precepting / teaching					
Providing effective feedback					
Assessing learner performance					
The learner (medical student/resident) profile					
Assessing professionalism					
Ethical principles in medical teaching					
Med-Tech resources for teaching and/or clinical practice					
Accessing and effectively using library resources					
CAN – MEDS roles of physicians					
Dealing with the learner in academic difficulty					
The difficult learner					
Teaching procedural skills					
Ambulatory care teaching					
Characteristics of effective teachers					
Principles of adult learning					
Creating a teaching portfolio					
Evidence Based Medicine					
Principles of small group teaching					
Effective large group teaching					
Effective use of audiovisual aids					
Others (please list)					

7. My preferred methods for CPD activities are (please RANK – 1=most preferred):

☐ Local site ☐ Distant site
☐ Videoconference ☐ Web cast/ Online
☐ Other _____

8. Preferred formats for CPD activities (please RANK – 1=most preferred)

☐ in conjunction with Continuing Medical Education
☐ in conjunction with other meetings
☐ stand alone

9. Preferred timing of CPD sessions (please RANK – 1=most preferred)

a. Weekday day long ____
b. Weekday AM ____
c. Weekday Afternoon ____
d. Weekday Evenings ____
e. Saturday AM ____
f. Saturday day long ____

10. Please indicate the extent to which you agree or disagree with this statement: "I would enjoy participating in Videoconference Grand Rounds in my specialty."

☐ Strongly Agree
☐ Agree
☐ Disagree
☐ Strongly Disagree
☐ Unsure

Thank you for assisting our efforts to provide for your Continuing Professional Development needs.

APPENDIX 4: COMMUNITY-BASED PRECEPTORS NEEDS FOR FACULTY DEVELOPMENT

Focus Group Information

Introduction

The purpose of the focus group is to gather information regarding the needs of community-based preceptors for faculty development. The results from the focus groups will be used to augment a questionnaire recently distributed to all community-based preceptors. The project is being conducted by researchers at Queen's University and is sponsored by the Ministry of Health and Long-Term Care. This information will be used to make recommendations to the Ministry of Health and Long-Term Care regarding directions and resources required for faculty development for community-based preceptors across the province of Ontario.

Process

The focus group will last one hour and be conducted via teleconference or videoconference depending upon the location of participants and access to facilities. To begin, we will go through the questions one at a time and ask for comments from each participant. After everyone has had a chance to respond to the question, we will open up the discussion for additional comments. Whenever you respond, please begin with your name.

Questions

1. Please introduce yourself including your name, location, area of specialty and the nature of your involvement as a community-based preceptor (length of time, level of learners etc.)

2. Have you participated in any faculty development sessions related to your role as a community-Based preceptor? If yes, please provide a brief description.

3. What would be your preferred approach to faculty development for community-based preceptors?
(e.g. workshops, face-to-face contact, technology-based learning opportunities etc.)

4. Barriers and incentives to participating in faculty development activities
In the 2005 survey, lack of time was identified as the main barrier to participating in faculty development activities

a. Would you agree that lack of time is the primary barrier?
b. Are there other factors that serve as a barrier? (e.g. practice logistics, financial constraints, lack of instructional experience etc.)
c. What types of incentives would make it easier for you to participate in faculty development activities?

5. To what extent are other health professionals (e.g. Nurses, Physiotherapists, Occupational Therapists, Social Work etc.) involved in the education of medical students in your setting?

Any additional comments you would like to make?

APPENDIX 5: LIST OF FOCUS GROUP PARTICIPANTS

Participant Information	
Names	**Specialty**
Dr. Anawati	Family Medicine
Dr. Armstrong	Family Medicine
Dr. Berezny	Internal Medicine
Dr. Birchard	Orthopedic Surgery
Dr. Brown	Family Medicine
Dr. Chanda	Obstetrics-Gynaecology
Dr. Chandrasena	Psychiatry
Dr, Cheung	Endocrinologist
Dr. Clarke	Family Medicine
Dr. Claveau	Family Medicine
Dr. Cross	Family Medicine
Dr. Dick	Family Medicine
Dr. Fallis	Obstetrics-Gynaecology
Dr. Hartwick	Family Medicine
Dr. Hazlett	Paediatrics
Dr. Heartwell	General Surgery
Dr. Horsey	Family Medicine
Dr. Hutten-Capski	Family Medicine
Dr. Josiukas	Psychiatry
Dr. Kovacs	Obstetrics-Gynaecology
Dr. Lajoie	Family Medicine
Dr. Ling	Orthopedic Surgery
Dr. MacFadyen	Internal Medicine
Dr. McIlreadh	General Surgery
Dr. Ostrander	Internal Medicine
Dr. Potvin	Family Medicine
Dr. Tarabain	Internal Medicine
Dr. Vasudeva	Obstetrics-Gynaecology
Dr. Wells	Family Medicine
Dr. Winfield	Family Medicine
Dr. Wohlgemut	Family Medicine
Dr. Yee	Internal Medicine
Dr. Ziter	Endocrinologist

APPENDIX 6: LIST OF ATTENDEES TO THE INVITATIONAL WORKSHOP WITH FACULTY DEVELOPMENT DIRECTORS AND DISTRIBUTED MEDICAL EDUCATION DIRECTORS OF ONTARIO MEDICAL SCHOOLS AND RURAL PROGRAMS, HELD ON MARCH 27TH, 2006

Organization	Representatives
Rural Ontario Medical Program	Ms. Caitlin McCullam, Postgraduate Coordinator Ms. Ashley Colter, Research Coordinator
University of Western Ontario - South Western Ontario Medical Education Network	Ms. Catherine Blake, Educational Research and Resources Manager Dr. Tom LaCroix, Assistant Dean, Rural Regional Medicine
McMaster University	Dr. Karl Stobbe, Director, Education Services Community and Rural Education Program Dr. Allyn Walsh, Assistant Dean, Program for Faculty Development
Northern Ontario School of Medicine	Dr. Maureen Topps, Associate Dean, Postgraduate Planning
University of Ottawa	Dr. Jolanta Karpinski, Director, Office of Faculty Development
Queen's University	Dr. Gene Dagnone, Director, Regional Education
Project Researchers	Dr. Danielle Blouin, Director, Faculty Development, Queen's University Dr. Elaine Van Melle, Director, Health Sciences Education, Queen's University
Council of Ontario Universities	Ms. Dot Hammond, Policy Analyst, Office of Health Sciences

APPENDIX 7: STATISTICAL ANALYSIS RESULTS

TABLE A: Number of Years in Practice – per Region

Region	Years in Practice – Mean	N	Std. Deviation	Variance
ERMEP	15.2	93	8.0	63.976
NOSM-NE	14.3	142	8.8	77.552
NOSM-NW	14.8	73	10.6	111.313
ROMP	16.7	173	8.5	72.394
SWOMEN	17.1	144	10.3	105.246
Total	15.8	625	9.2	85.167

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Years since graduation * Region	Between Groups (Combined)	807.461	4	201.865	2.391	.050
	Within Groups	52337.039	620	84.415		
	Total	53144.500	624			

TABLE B: Number of Years in Practice – per Type of Practice

Type of Practice	Years in Practice - Mean	N	Std. Deviation	Variance
Family Medicine	16.5	254	9.0	80.431
Specialty Medicine	15.3	360	9.4	88.008
Total	15.8	614	9.2	85.081

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Years since graduation * Family vs. Specialty Medicine	Between Groups (Combined)	210.536	1	210.536	2.481	.116
	Within Groups	51944.070	612	84.876		
	Total	52154.606	613			

TABLE C: Prior Formal Instruction in Education – per Region (0=None; 1=Yes)

Region	Prior Instruction – Mean	N	Std. Deviation	Variance
ERMEP	.14	96	.344	.118
NOSM-NE	.26	147	.439	.193
NOSM-NW	.35	75	.479	.230
ROMP	.22	174	.418	.175
SWOMEN	.33	147	.473	.224
Total	.26	639	.438	.192

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Formal instruction * Region	Between Groups (Combined)	3.066	4	.766	4.072	.003
	Within Groups	119.328	634	.188		
	Total	122.394	638			

Games-Howell

(I) Region	(J) Region	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
ERMEP	NOSM-NE	-.123	.050	.109	-.26	.02
	NOSM-NW	-.211(*)	.066	.014	-.39	-.03
	ROMP	-.089	.047	.333	-.22	.04
	SWOMEN	-.198(*)	.052	.002	-.34	-.05
NOSM-NE	ERMEP	.123	.050	.109	-.02	.26
	NOSM-NW	-.088	.066	.671	-.27	.09
	ROMP	.034	.048	.953	-.10	.17
	SWOMEN	-.075	.053	.625	-.22	.07
NOSM-NW	ERMEP	.211(*)	.066	.014	.03	.39
	NOSM-NE	.088	.066	.671	-.09	.27
	ROMP	.123	.064	.311	-.05	.30
	SWOMEN	.013	.068	1.000	-.17	.20
ROMP	ERMEP	.089	.047	.333	-.04	.22
	NOSM-NE	-.034	.048	.953	-.17	.10
	NOSM-NW	-.123	.064	.311	-.30	.05
	SWOMEN	-.109	.050	.193	-.25	.03
SWOMEN	ERMEP	.198(*)	.052	.002	.05	.34
	NOSM-NE	.075	.053	.625	-.07	.22
	NOSM-NW	-.013	.068	1.000	-.20	.17
	ROMP	.109	.050	.193	-.03	.25

* The mean difference is significant at the .05 level.

TABLE D: Prior Formal Instruction in Education – per Range of Years in Practice (0=None; 1=Yes)

Years in Practice – Range	Formal Instruction – Mean	N	Std. Deviation	Variance
1-5	.14	90	.354	.125
6-10	.25	122	.437	.191
11-20	.26	224	.439	.193
21 yrs & up	.31	189	.465	.216
Total	.26	625	.438	.192

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Formal instruction * Range of years in practice	Between Groups (Combined)	1.717	3	.572	3.017	.029
	Within Groups	117.809	621	.190		
	Total	119.526	624			

Games-Howell

(I) Year-Range	(J) Year-Range	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1-5	6-10	-.110	.054	.185	-.25	.03
	11-20	-.114	.047	.078	-.24	.01
	21 yrs & up	-.168(*)	.050	.005	-.30	-.04
6-10	1-5	.110	.054	.185	-.03	.25
	11-20	-.005	.049	1.000	-.13	.12
	21 yrs & up	-.058	.052	.680	-.19	.08
11-20	1-5	.114	.047	.078	-.01	.24
	6-10	.005	.049	1.000	-.12	.13
	21 yrs & up	-.053	.045	.634	-.17	.06
21 yrs & up	1-5	.168(*)	.050	.005	.04	.30
	6-10	.058	.052	.680	-.08	.19
	11-20	.053	.045	.634	-.06	.17

* The mean difference is significant at the .05 level.

TABLE E: Prior Formal Instruction – per Type of Practice (0=None; 1=Yes)

Type of Practice	Mean	N	Std. Deviation	Variance
Family Medicine	.27	257	.446	.199
Specialty Medicine	.24	367	.429	.184
Total	.25	624	.436	.190

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Formal instruction * Family vs. Specialty Medicine	Between Groups (Combined)	.135	1	.135	.709	.400
	Within Groups	118.351	622	.190		
	Total	118.486	623			

TABLE F: Perceptions on Teaching – per Region (1=Strongly Agree; 4=Strongly Disagree)

Region		Teaching interest	Teaching rewarding	Comfort in teaching
ERMEP	Mean	1.59	1.66	1.74
	N	96	96	96
	Std. Deviation	.913	.950	.909
	Variance	.833	.902	.826
NOSM-NE	Mean	1.58	1.62	1.79
	N	147	147	147
	Std. Deviation	.875	.814	.838
	Variance	.766	.662	.702
NOSM-NW	Mean	1.45	1.53	1.71
	N	75	75	75
	Std. Deviation	.552	.577	.806
	Variance	.305	.333	.650
ROMP	Mean	1.56	1.54	1.70
	N	174	174	174
	Std. Deviation	.631	.694	.762
	Variance	.398	.481	.581
SWOMEN	Mean	1.59	1.59	1.71
	N	147	147	147
	Std. Deviation	.774	.738	.844
	Variance	.599	.545	.712
Total	Mean	1.56	1.59	1.73
	N	639	639	639
	Std. Deviation	.763	.762	.825
	Variance	.582	.581	.681

ANOVA Table

		Sum of	df	Mean	F	Sig.
Teaching interest * Region	Between Groups (Combined)	1.154	4	.289	.494	.740
	Within Groups	370.029	634	.584		
	Total	371.183	638			
Teaching rewarding * Region	Between Groups (Combined)	1.211	4	.303	.519	.722
	Within Groups	369.718	634	.583		
	Total	370.930	638			
Comfort in teaching* Region	Between Groups (Combined)	.723	4	.181	.264	.901
	Within Groups	433.499	634	.684		
	Total	434.221	638			

TABLE G: Perceptions on Teaching – per Range of Years in Practice (1=Strongly Agree; 4=Strongly Disagree)

Range of Years in Practice		Teaching	Teaching	Comfort at
1-5	Mean	1.61	1.64	1.84
	N	90	90	90
	Std. Deviation	.682	.692	.669
	Variance	.465	.479	.447
6-10	Mean	1.54	1.60	1.67
	N	122	122	122
	Std. Deviation	.718	.712	.686
	Variance	.515	.507	.470
11-20	Mean	1.59	1.60	1.72
	N	224	224	224
	Std. Deviation	.868	.872	.907
	Variance	.754	.761	.822
21 yrs & up	Mean	1.54	1.56	1.75
	N	189	189	189
	Std. Deviation	.703	.694	.869
	Variance	.494	.482	.754
Total	Mean	1.57	1.59	1.74
	N	625	625	625
	Std. Deviation	.765	.765	.824
	Variance	.585	.585	.679

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Teaching interest * Year-Range	Between Groups (Combined)	.555	3	.185	.315	.815
	Within Groups	364.668	621	.587		
	Total	365.222	624			
Teaching rewarding * Year-Range	Between Groups (Combined)	.527	3	.176	.300	.826
	Within Groups	364.247	621	.587		
	Total	364.774	624			
Comfort at teaching * Year-Range	Between Groups (Combined)	1.680	3	.560	.825	.481
	Within Groups	421.798	621	.679		
	Total	423.478	624			

TABLE H: Perceptions on Teaching – per Type of Practice (1=Strongly Agree; 4=Strongly Disagree)

Type of Practice		Teaching interest	Teaching rewarding	Comfort at teaching
Family Medicine	Mean	1.48	1.49	1.73
	N	257	257	257
	Std. Deviation	.702	.674	.795
	Variance	.493	.454	.632
Specialty Medicine	Mean	1.62	1.66	1.74
	N	367	367	367
	Std. Deviation	.793	.807	.839
	Variance	.629	.651	.703
Total	Mean	1.56	1.59	1.73
	N	624	624	624
	Std. Deviation	.760	.759	.820
	Variance	.577	.576	.673

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Teaching interest * Family vs. Specialty Medicine	Between Groups (Combined)	2.910	1	2.910	5.078	.025
	Within Groups	356.525	622	.573		
	Total	359.436	623			
Teaching rewarding * Family vs. Specialty Medicine	Between Groups (Combined)	4.464	1	4.464	7.836	.005
	Within Groups	354.329	622	.570		
	Total	358.793	623			
Comfort in teaching * Family vs. Specialty Medicine	Between Groups (Combined)	.015	1	.015	.022	.881
	Within Groups	419.273	622	.674		
	Total	419.288	623			

TABLE I: Interest for Faculty Development Topics – per Region (1=Very Interested; 5=Not Interested)

Region		University Expectations	CPSO Teacher Guidelines	Educational Objectives	Time-efficient Precepting	Effective Feedback	Evaluating Performance	Learner Profile	Assessing Professionalism
ERMEP	Mean	1.95	2.26	2.09	1.67	1.86	1.92	2.28	2.29
	N	96	96	96	96	96	96	96	96
	Std. Deviation	1.217	1.267	1.134	.991	1.012	1.111	1.203	1.289
	Variance	1.481	1.605	1.286	.982	1.024	1.235	1.446	1.661
NOSM-NE	Mean	2.57	2.81	2.17	2.00	1.96	1.95	2.46	2.50
	N	147	147	147	147	147	147	147	147
	Std. Deviation	1.211	1.196	1.036	1.066	.999	.946	.862	1.030
	Variance	1.466	1.429	1.074	1.137	.998	.895	.743	1.060
NOSM-NW	Mean	2.36	2.51	1.93	1.71	1.88	1.92	2.44	2.32
	N	75	75	75	75	75	75	75	75
	Std. Deviation	1.048	1.083	.935	.912	1.039	.983	.919	.903
	Variance	1.098	1.172	.874	.832	1.080	.966	.844	.815
ROMP	Mean	1.80	2.62	1.45	1.97	1.47	2.03	1.80	2.50
	N	174	174	174	174	174	174	174	174
	Std. Deviation	1.457	1.099	1.242	1.101	1.243	1.005	1.445	.936
	Variance	2.123	1.208	1.544	1.213	1.545	1.011	2.089	.876
SWOMEN	Mean	2.50	2.61	2.32	2.07	2.00	2.12	2.52	2.50
	N	147	147	147	147	147	147	147	147
	Std. Deviation	1.224	1.149	1.066	1.047	1.014	1.010	1.049	1.036
	Variance	1.498	1.321	1.137	1.097	1.027	1.021	1.100	1.074
Total	Mean	2.23	2.59	1.97	1.92	1.81	2.00	2.27	2.45
	N	639	639	639	639	639	639	639	639
	Std. Deviation	1.307	1.166	1.154	1.051	1.099	1.007	1.178	1.037
	Variance	1.709	1.361	1.331	1.105	1.207	1.014	1.388	1.075

Region		Ethical Principles	MedTech Resources	Library Resources	Can MEDS Roles	Learner in Difficulty	Difficult Learner	Teaching Procedural Skills	Ambulatory Care Teaching
ERMEP	Mean	2.11	2.00	2.34	2.43	2.30	2.19	1.90	1.88
	N	96	96	96	96	96	96	96	96
	Std. Deviation	1.160	1.384	1.344	1.492	1.315	1.324	1.192	1.233
	Variance	1.345	1.916	1.807	2.226	1.729	1.754	1.421	1.521
NOSM-NE	Mean	2.55	2.31	2.37	2.69	2.44	2.39	2.26	2.31
	N	147	147	147	147	147	147	147	147
	Std. Deviation	1.105	1.096	1.093	1.313	1.050	1.089	1.135	1.078
	Variance	1.222	1.200	1.195	1.723	1.102	1.186	1.289	1.162
NOSM-NW	Mean	2.39	2.29	2.52	2.49	2.21	2.31	2.24	2.37
	N	75	75	75	75	75	75	75	75
	Std. Deviation	1.025	.927	1.031	1.212	1.031	1.127	.819	.866
	Variance	1.051	.859	1.064	1.470	1.062	1.270	.671	.751
ROMP	Mean	1.76	2.36	1.80	2.39	1.76	2.52	1.79	2.45
	N	174	174	174	174	174	174	174	174
	Std. Deviation	1.409	1.076	1.466	1.481	1.482	1.172	1.449	1.214
	Variance	1.985	1.157	2.150	2.192	2.196	1.373	2.099	1.475
SWOMEN	Mean	2.45	2.30	2.48	2.53	2.50	2.43	2.25	2.32
	N	147	147	147	147	147	147	146	147
	Std. Deviation	1.093	1.149	1.149	1.371	1.119	1.135	1.069	1.060
	Variance	1.194	1.321	1.320	1.881	1.252	1.288	1.142	1.123
Total	Mean	2.23	2.27	2.25	2.51	2.22	2.39	2.07	2.29
	N	639	639	639	639	639	639	638	639
	Std. Deviation	1.230	1.136	1.277	1.391	1.266	1.165	1.209	1.127
	Variance	1.512	1.289	1.632	1.934	1.603	1.358	1.461	1.271

Region		Evidence-based Medicine	Effective Teachers	Principles of Adult Learning	Teaching Portfolio	Small Group Teaching	Large Group Teaching	Effective Audiovisual Aid
ERMEP	Mean	2.09	1.59	2.30	.00	.00	.00	.00
	N	96	96	96	96	96	96	96
	Std. Deviation	1.257	1.166	1.299	.000	.000	.000	.000
	Variance	1.581	1.360	1.687	.000	.000	.000	.000
NOSM-NE	Mean	2.02	2.22	2.39	2.61	2.45	2.75	2.53
	N	147	147	147	147	147	147	147
	Std. Deviation	1.044	1.050	1.138	1.219	1.028	1.152	1.178
	Variance	1.090	1.103	1.295	1.487	1.057	1.327	1.388
NOSM-NW	Mean	2.08	2.09	2.35	2.52	2.39	2.64	2.52
	N	75	75	75	75	75	75	75
	Std. Deviation	.969	.975	.966	1.005	.928	1.035	1.031
	Variance	.939	.951	.932	1.010	.862	1.071	1.064
ROMP	Mean	2.26	1.66	2.51	1.88	1.89	3.02	1.90
	N	174	174	174	174	174	174	174
	Std. Deviation	1.100	1.366	1.132	1.563	1.456	1.143	1.601
	Variance	1.210	1.867	1.280	2.442	2.121	1.306	2.563
SWOMEN	Mean	2.31	2.16	2.46	2.53	2.51	2.90	2.53
	N	147	147	147	147	147	147	147
	Std. Deviation	1.114	1.051	1.106	1.106	1.131	1.178	1.321
	Variance	1.241	1.105	1.223	1.223	1.279	1.388	1.744
Total	Mean	2.17	1.94	2.42	1.99	1.94	2.43	1.98
	N	639	639	639	639	639	639	639
	Std. Deviation	1.104	1.181	1.135	1.479	1.391	1.471	1.517
	Variance	1.219	1.395	1.288	2.186	1.935	2.164	2.300

TABLE J: Interest for Faculty Development Topics – per Range of Years in Practice

Range of Years in Practice		University Expectations	CPSO Teacher Guidelines	Educational Objectives	Time-efficient Precepting	Effective Feedback	Evaluating Performance	Learner Profile	Assessing Professionalism
1-5	Mean	2.47	2.71	2.01	1.89	1.82	1.98	2.41	2.47
	N	90	90	90	90	90	90	90	90
	Std. Deviation	1.192	.915	1.011	.977	.978	.971	1.069	.914
	Variance	1.420	.837	1.022	.954	.957	.943	1.144	.836
6-10	Mean	2.56	2.79	2.06	1.94	1.89	2.19	2.34	2.48
	N	122	122	122	122	122	122	122	122
	Std. Deviation	1.343	1.152	1.116	1.031	1.046	.973	1.204	.981
	Variance	1.802	1.326	1.245	1.063	1.094	.948	1.451	.963
11-20	Mean	2.24	2.65	2.03	1.93	1.84	2.04	2.35	2.61
	N	224	224	224	224	224	224	224	224
	Std. Deviation	1.320	1.240	1.181	1.013	1.178	.997	1.166	1.062
	Variance	1.742	1.537	1.394	1.026	1.388	.994	1.359	1.127
21 years & up	Mean	1.93	2.39	1.84	1.95	1.73	1.87	2.06	2.24
	N	189	189	189	189	189	189	189	189
	Std. Deviation	1.280	1.169	1.223	1.138	1.109	1.046	1.212	1.049
	Variance	1.639	1.366	1.496	1.295	1.230	1.094	1.470	1.100
Total	Mean	2.24	2.61	1.98	1.93	1.81	2.01	2.27	2.45
	N	625	625	625	625	625	625	625	625
	Std. Deviation	1.313	1.167	1.159	1.049	1.104	1.008	1.180	1.031
	Variance	1.724	1.361	1.344	1.099	1.219	1.016	1.393	1.062

Range of Years in Practice		Ethical Principles	MedTech Resources	Library Resources	CanMEDS Roles	Learner in Difficulty	Difficult Learner	Teaching Procedural Skills	Ambulatory Care Teaching
1-5	Mean	2.32	2.27	2.58	2.86	2.40	2.50	1.90	2.29
	N	90	90	90	90	90	90	90	90
	Std. Deviation	1.110	1.089	1.254	1.259	1.089	1.030	1.050	1.134
	Variance	1.232	1.187	1.573	1.586	1.187	1.062	1.102	1.286
6-10	Mean	2.40	2.44	2.45	2.74	2.33	2.48	2.05	2.27
	N	122	122	122	122	122	122	122	122
	Std. Deviation	1.190	1.121	1.227	1.310	1.256	1.166	1.051	.909
	Variance	1.416	1.257	1.506	1.716	1.578	1.359	1.105	.827
11-20	Mean	2.25	2.33	2.21	2.53	2.27	2.39	2.16	2.41
	N	224	224	224	224	224	224	224	224
	Std. Deviation	1.275	1.107	1.289	1.385	1.301	1.178	1.292	1.171
	Variance	1.626	1.225	1.662	1.918	1.692	1.388	1.669	1.372
21 years & up	Mean	2.06	2.14	2.07	2.18	2.01	2.31	2.09	2.23
	N	189	189	189	189	189	189	189	189
	Std. Deviation	1.266	1.190	1.293	1.451	1.311	1.221	1.271	1.171
	Variance	1.602	1.417	1.671	2.106	1.718	1.490	1.614	1.371
Total	Mean	2.24	2.28	2.27	2.51	2.22	2.40	2.08	2.31
	N	625	625	625	625	625	625	625	625
	Std. Deviation	1.237	1.136	1.283	1.393	1.273	1.168	1.209	1.119
	Variance	1.530	1.290	1.647	1.939	1.619	1.365	1.462	1.253

Range of Years in Practice		Evidence-based Medicine	Effective Teachers	Principles of Adult Learning	Teaching Portfolio	Small Group Teaching	Large Group Teaching	Effective Audiovisual Aid
1-5	Mean	2.31	1.80	2.47	2.09	1.98	2.39	2.26
	N	90	90	90	90	90	90	90
	Std. Deviation	1.118	1.008	1.051	1.338	1.263	1.304	1.503
	Variance	1.250	1.016	1.106	1.790	1.595	1.701	2.260
6-10	Mean	2.20	2.01	2.52	2.13	2.03	2.49	2.15
	N	122	122	122	122	122	122	122
	Std. Deviation	1.075	1.139	1.030	1.402	1.304	1.386	1.503
	Variance	1.156	1.297	1.062	1.966	1.701	1.921	2.259
11-20	Mean	2.18	2.00	2.52	1.97	1.87	2.42	1.92
	N	224	224	224	224	224	224	224
	Std. Deviation	1.147	1.247	1.160	1.618	1.498	1.580	1.570
	Variance	1.316	1.556	1.345	2.618	2.244	2.496	2.465
21 years & up	Mean	2.09	1.92	2.27	1.90	1.95	2.47	1.85
	N	189	189	189	189	189	189	189
	Std. Deviation	1.076	1.216	1.192	1.441	1.393	1.482	1.481
	Variance	1.158	1.478	1.421	2.076	1.939	2.197	2.194
Total	Mean	2.18	1.95	2.44	2.00	1.94	2.44	1.99
	N	625	625	625	625	625	625	625
	Std. Deviation	1.107	1.184	1.133	1.485	1.395	1.473	1.525
	Variance	1.227	1.403	1.285	2.205	1.947	2.170	2.325

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
University Expectations * Year-Range	Between Groups (Combined)	34.936	3	11.645	6.947	.000
	Within Groups	1041.064	621	1.676		
	Total	1076.000	624			
CPSO Guidelines for Teachers * Year-Range	Between Groups (Combined)	14.583	3	4.861	3.617	.013
	Within Groups	834.591	621	1.344		
	Total	849.174	624			
Review of Objectives * Year-Range	Between Groups (Combined)	5.033	3	1.678	1.250	.291
	Within Groups	833.607	621	1.342		
	Total	838.640	624			
Time-Efficient Precepting * Year-Range	Between Groups (Combined)	.226	3	.075	.068	.977
	Within Groups	685.815	621	1.104		
	Total	686.042	624			
Effective Feedback * Year-Range	Between Groups (Combined)	2.152	3	.717	.587	.623
	Within Groups	758.318	621	1.221		
	Total	760.470	624			
Evaluating Performance * Year-Range	Between Groups (Combined)	8.076	3	2.692	2.671	.047
	Within Groups	625.866	621	1.008		
	Total	633.942	624			
Learner Profile * Year-Range	Between Groups (Combined)	12.474	3	4.158	3.014	.030
	Within Groups	856.828	621	1.380		
	Total	869.302	624			
Assessing Professionalism * Year-Range	Between Groups (Combined)	13.758	3	4.586	4.387	.005
	Within Groups	649.100	621	1.045		
	Total	662.858	624			
Ethical Principles * Year-Range	Between Groups (Combined)	9.717	3	3.239	2.129	.095
	Within Groups	944.709	621	1.521		
	Total	954.426	624			
MedTech Resources * Year-Range	Between Groups (Combined)	7.542	3	2.514	1.958	.119
	Within Groups	797.331	621	1.284		
	Total	804.874	624			
Library Resources * Year-Range	Between Groups (Combined)	21.091	3	7.030	4.336	.005
	Within Groups	1006.820	621	1.621		
	Total	1027.910	624			

CanMEDS Roles * Year-Range	Between Groups (Combined)	37.766	3	12.589	6.668	.000
	Within Groups	1172.394	621	1.888		
	Total	1210.160	624			
Learner in Difficulty * Year-Range	Between Groups (Combined)	13.713	3	4.571	2.848	.037
	Within Groups	996.845	621	1.605		
	Total	1010.558	624			
Difficult Learner * Year-Range	Between Groups (Combined)	3.403	3	1.134	.830	.478
	Within Groups	848.597	621	1.367		
	Total	852.000	624			
Teaching Procedural Skills * Year-Range	Between Groups (Combined)	4.510	3	1.503	1.029	.379
	Within Groups	907.490	621	1.461		
	Total	912.000	624			
Ambulatory Care Teaching * Year-Range	Between Groups (Combined)	3.432	3	1.144	.913	.434
	Within Groups	778.351	621	1.253		
	Total	781.782	624			
Effective Teachers * Year-Range	Between Groups (Combined)	3.266	3	1.089	.775	.508
	Within Groups	872.197	621	1.405		
	Total	875.462	624			
Principles of Adult Learning * Year-Range	Between Groups (Combined)	7.592	3	2.531	1.979	.116
	Within Groups	794.034	621	1.279		
	Total	801.626	624			
Teaching Portfolio * Year-Range	Between Groups (Combined)	4.684	3	1.561	.707	.548
	Within Groups	1371.316	621	2.208		
	Total	1376.000	624			
Evidence-based Medicine * Year-Range	Between Groups (Combined)	3.067	3	1.022	.833	.476
	Within Groups	762.291	621	1.228		
	Total	765.358	624			
Small Group Teaching * Year-Range	Between Groups (Combined)	2.144	3	.715	.366	.778
	Within Groups	1212.896	621	1.953		
	Total	1215.040	624			
Effective large Group Teaching * Year-Range	Between Groups (Combined)	.729	3	.243	.111	.953
	Within Groups	1353.617	621	2.180		
	Total	1354.346	624			
Effective Use of Audiovisual Aids * Year-Range	Between Groups (Combined)	14.233	3	4.744	2.051	.106
	Within Groups	1436.727	621	2.314		
	Total	1450.960	624			

Multiple Comparisons (Performed Only for Topics Showing Significant Differences)

Games-Howell

Dependent Variable	(I) Year-Range	(J) Year-Range	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence	
						Lower Bound	Upper Bound
University Expectations	1-5	6-10	-.091	.175	.954	-.54	.36
		11-20	.230	.153	.440	-.17	.63
		21 years & up	.535(*)	.156	.004	.13	.94
	6-10	1-5	.091	.175	.954	-.36	.54
		11-20	.321	.150	.145	-.07	.71
		21 years & up	.626(*)	.153	.000	.23	1.02
	11-20	1-5	-.230	.153	.440	-.63	.17
		6-10	-.321	.150	.145	-.71	.07
		21 years & up	.305	.128	.082	-.03	.64
	21 years & up	1-5	-.535(*)	.156	.004	-.94	-.13
		6-10	-.626(*)	.153	.000	-1.02	-.23
		11-20	-.305	.128	.082	-.64	.03
CPSO Guidelines for Teachers	1-5	6-10	-.076	.142	.951	-.44	.29
		11-20	.059	.127	.966	-.27	.39
		21 years & up	.325	.129	.059	-.01	.66
	6-10	1-5	.076	.142	.951	-.29	.44
		11-20	.135	.133	.741	-.21	.48
		21 years & up	.401(*)	.135	.017	.05	.75
	11-20	1-5	-.059	.127	.966	-.39	.27
		6-10	-.135	.133	.741	-.48	.21
		21 years & up	.266	.119	.115	-.04	.57
	21 years & up	1-5	-.325	.129	.059	-.66	.01
		6-10	-.401(*)	.135	.017	-.75	-.05
		11-20	-.266	.119	.115	-.57	.04
Evaluating Learner Performance	1-5	6-10	-.211	.135	.404	-.56	.14
		11-20	-.067	.122	.947	-.38	.25
		21 years & up	.110	.128	.824	-.22	.44
	6-10	1-5	.211	.135	.404	-.14	.56
		11-20	.144	.110	.562	-.14	.43
		21 years & up	.321(*)	.116	.032	.02	.62
	11-20	1-5	.067	.122	.947	-.25	.38
		6-10	-.144	.110	.562	-.43	.14
		21 years & up	.177	.101	.300	-.08	.44
	21 years & up	1-5	-.110	.128	.824	-.44	.22
		6-10	-.321(*)	.116	.032	-.62	-.02
		11-20	-.177	.101	.300	-.44	.08
Learner	1-5	6-10	.067	.157	.974	-.34	.47

Profile		11-20	.058	.137	.974	-.30	.41
		21 years & up	.353	.143	.069	-.02	.72
	6-10	1-5	-.067	.157	.974	-.47	.34
		11-20	-.008	.134	1.000	-.36	.34
		21 years & up	.286	.140	.176	-.08	.65
	11-20	1-5	-.058	.137	.974	-.41	.30
		6-10	.008	.134	1.000	-.34	.36
		21 years & up	.294	.118	.061	-.01	.60
	21 years & up	1-5	-.353	.143	.069	-.72	.02
		6-10	-.286	.140	.176	-.65	.08
		11-20	-.294	.118	.061	-.60	.01
Assessing Professionalism	1-5	6-10	-.017	.131	.999	-.36	.32
		11-20	-.140	.120	.644	-.45	.17
		21 years & up	.223	.123	.269	-.10	.54
	6-10	1-5	.017	.131	.999	-.32	.36
		11-20	-.124	.114	.698	-.42	.17
		21 years & up	.240	.117	.172	-.06	.54
	11-20	1-5	.140	.120	.644	-.17	.45
		6-10	.124	.114	.698	-.17	.42
		21 years & up	.364(*)	.104	.003	.09	.63
	21 years & up	1-5	-.223	.123	.269	-.54	.10
		6-10	-.240	.117	.172	-.54	.06
		11-20	-.364(*)	.104	.003	-.63	-.09
Using Library Resources	1-5	6-10	.127	.173	.883	-.32	.57
		11-20	.372	.158	.089	-.04	.78
		21 years & up	.509(*)	.162	.011	.09	.93
	6-10	1-5	-.127	.173	.883	-.57	.32
		11-20	.245	.141	.302	-.12	.61
		21 years & up	.382(*)	.146	.045	.01	.76
	11-20	1-5	-.372	.158	.089	-.78	.04
		6-10	-.245	.141	.302	-.61	.12
		21 years & up	.137	.128	.707	-.19	.47
	21 years & up	1-5	-.509(*)	.162	.011	-.93	-.09
		6-10	-.382(*)	.146	.045	-.76	-.01
		11-20	-.137	.128	.707	-.47	.19

CanMEDS Roles	1-5	6-10	.118	.178	.911	-.34	.58
		11-20	.324	.162	.190	-.10	.74
		21 years & up	.676(*)	.170	.001	.24	1.12
	6-10	1-5	-.118	.178	.911	-.58	.34
		11-20	.206	.150	.518	-.18	.60
		21 years & up	.558(*)	.159	.003	.15	.97
	11-20	1-5	-.324	.162	.190	-.74	.10
		6-10	-.206	.150	.518	-.60	.18
		21 years & up	.351	.140	.061	-.01	.71
	21 years & up	1-5	-.676(*)	.170	.001	-1.12	-.24
		6-10	-.558(*)	.159	.003	-.97	-.15
		11-20	-.351	.140	.061	-.71	.01
Learner in Academic Difficulty	1-5	6-10	.072	.162	.970	-.35	.49
		11-20	.125	.144	.820	-.25	.50
		21 years & up	.395(*)	.149	.043	.01	.78
	6-10	1-5	-.072	.162	.970	-.49	.35
		11-20	.053	.143	.982	-.32	.42
		21 years & up	.323	.148	.133	-.06	.71
	11-20	1-5	-.125	.144	.820	-.50	.25
		6-10	-.053	.143	.982	-.42	.32
		21 years & up	.269	.129	.159	-.06	.60
	21 years & up	1-5	-.395(*)	.149	.043	-.78	-.01
		6-10	-.323	.148	.133	-.71	.06
		11-20	-.269	.129	.159	-.60	.06

* The mean difference is significant at the .05 level.

TABLE K: Level of Interest for Faculty Development Topics – per Type of Practice (1=Very Interested; 5=Not Interested)

Type of Practice		University Expectations	CPSO Teacher Guidelines	Educational Objectives	Time-efficient Precepting	Effective Feedback	Evaluating Performance	Learner Profile	Assessing Professionalism
Unknown	Mean	2.60	3.00	2.80	2.70	2.50	2.80	2.90	3.20
	N	10	10	10	10	10	10	10	10
	Std. Deviation	1.350	1.247	1.033	1.337	1.509	1.135	1.370	1.229
	Variance	1.822	1.556	1.067	1.789	2.278	1.289	1.878	1.511
Family Medicine	Mean	2.20	2.58	1.88	1.83	1.67	1.87	2.18	2.40
	N	259	259	259	259	259	259	259	259
	Std. Deviation	1.287	1.102	1.131	1.000	1.029	.921	1.139	.969
	Variance	1.657	1.214	1.279	.999	1.060	.848	1.296	.938
Specialty Medicine	Mean	2.24	2.60	2.01	1.96	1.89	2.07	2.31	2.46
	N	370	370	370	370	370	370	370	370
	Std. Deviation	1.322	1.209	1.164	1.070	1.121	1.047	1.195	1.072
	Variance	1.747	1.461	1.355	1.145	1.257	1.095	1.429	1.149
Total	Mean	2.23	2.59	1.97	1.92	1.81	2.00	2.27	2.45
	N	639	639	639	639	639	639	639	639
	Std. Deviation	1.307	1.166	1.154	1.051	1.099	1.007	1.178	1.037
	Variance	1.709	1.361	1.331	1.105	1.207	1.014	1.388	1.075

Type of Practice		Ethical Principles	MedTech Resources	Library Resources	CanMEDS Roles	Learner in Difficulty	Difficult Learner	Teaching Procedural Skills	Ambulatory Care Teaching
Unknown	Mean	2.80	2.60	2.80	2.60	2.40	2.30	2.90	2.50
	N	10	10	10	10	10	10	10	10
	Std. Deviation	1.549	1.430	1.229	1.713	1.075	1.059	1.197	1.354
	Variance	2.400	2.044	1.511	2.933	1.156	1.122	1.433	1.833
Family Medicine	Mean	2.18	2.24	2.23	2.42	2.06	2.28	2.01	2.26
	N	259	259	259	259	259	259	258	259
	Std. Deviation	1.195	1.044	1.229	1.464	1.225	1.121	1.180	1.015
	Variance	1.428	1.090	1.510	2.143	1.500	1.256	1.393	1.030
Specialty Medicine	Mean	2.25	2.29	2.26	2.57	2.33	2.48	2.09	2.31
	N	370	370	370	370	370	370	370	370
	Std. Deviation	1.244	1.189	1.311	1.328	1.290	1.194	1.223	1.196
	Variance	1.546	1.414	1.720	1.764	1.665	1.426	1.495	1.430
Total	Mean	2.23	2.27	2.25	2.51	2.22	2.39	2.07	2.29
	N	639	639	639	639	639	639	638	639
	Std. Deviation	1.230	1.136	1.277	1.391	1.266	1.165	1.209	1.127
	Variance	1.512	1.289	1.632	1.934	1.603	1.358	1.461	1.271

Type of Practice		Evidence-based Medicine	Effective Teachers	Principles of Adult Learning	Teaching Portfolio	Small Group Teaching	Large Group Teaching	Effective Audiovisual Aid
Unknown	Mean	2.80	2.80	3.10	3.00	2.70	3.20	3.10
	N	10	10	10	10	10	10	10
	Std. Deviation	1.619	1.317	1.101	1.633	1.059	1.135	1.287
	Variance	2.622	1.733	1.211	2.667	1.122	1.289	1.656
Family Medicine	Mean	2.11	1.81	2.37	2.00	2.02	2.68	2.16
	N	259	259	259	259	259	259	259
	Std. Deviation	1.039	1.137	1.068	1.445	1.378	1.382	1.557
	Variance	1.079	1.294	1.140	2.089	1.899	1.910	2.423
Specialty Medicine	Mean	2.20	2.01	2.44	1.95	1.85	2.24	1.82
	N	370	370	370	370	370	370	370
	Std. Deviation	1.129	1.195	1.177	1.492	1.401	1.511	1.470
	Variance	1.275	1.428	1.385	2.225	1.962	2.282	2.160
Total	Mean	2.17	1.94	2.42	1.99	1.94	2.43	1.98
	N	639	639	639	639	639	639	639
	Std. Deviation	1.104	1.181	1.135	1.479	1.391	1.471	1.517
	Variance	1.219	1.395	1.288	2.186	1.935	2.164	2.300

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
University Expectations * Type of Practice	Between Groups (Combined)	1.594	2	.797	.466	.628
	Within Groups	1088.503	636	1.711		
	Total	1090.097	638			
CPSO Guidelines for Teachers * Type of Practice	Between Groups (Combined)	1.743	2	.871	.640	.528
	Within Groups	866.279	636	1.362		
	Total	868.022	638			
Review of Objectives * Type of Practice	Between Groups (Combined)	9.771	2	4.885	3.701	.025
	Within Groups	839.603	636	1.320		
	Total	849.374	638			
Time-efficient Precepting * Type of Practice	Between Groups (Combined)	8.738	2	4.369	3.990	.019
	Within Groups	696.504	636	1.095		
	Total	705.243	638			
Effective Feedback * Type of Practice	Between Groups (Combined)	12.468	2	6.234	5.233	.006
	Within Groups	757.620	636	1.191		
	Total	770.088	638			
Evaluating Learner Performance * Type of Practice	Between Groups (Combined)	12.430	2	6.215	6.229	.002
	Within Groups	634.568	636	.998		
	Total	646.998	638			
Learner Profile * Type of Practice	Between Groups (Combined)	6.612	2	3.306	2.393	.092
	Within Groups	878.628	636	1.381		
	Total	885.239	638			
Assessing Professionalism * Type of Practice	Between Groups (Combined)	6.385	2	3.192	2.988	.051
	Within Groups	679.609	636	1.069		
	Total	685.994	638			
Ethical Principles in Education * Type of Practice	Between Groups (Combined)	3.952	2	1.976	1.308	.271
	Within Groups	960.690	636	1.511		
	Total	964.642	638			
MedTech Resources * Type of Practice	Between Groups (Combined)	1.429	2	.714	.553	.575
	Within Groups	821.191	636	1.291		
	Total	822.620	638			
Using Library Resources * Type of Practice	Between Groups (Combined)	3.162	2	1.581	.969	.380
	Within Groups	1037.768	636	1.632		
	Total	1040.930	638			

CanMEDS Roles * Type of Practice	Between Groups (Combined)	3.542	2	1.771	.916	.401
	Within Groups	1230.176	636	1.934		
	Total	1233.718	638			
Learner in Difficulty * Type of Practice	Between Groups (Combined)	11.153	2	5.576	3.505	.031
	Within Groups	1011.764	636	1.591		
	Total	1022.916	638			
Difficult Learner * Type of Practice	Between Groups (Combined)	6.208	2	3.104	2.294	.102
	Within Groups	860.412	636	1.353		
	Total	866.620	638			
Teaching Procedural Skills * Type of Practice	Between Groups (Combined)	8.110	2	4.055	2.791	.062
	Within Groups	922.574	635	1.453		
	Total	930.683	637			
Ambulatory Care teaching * Type of Practice	Between Groups (Combined)	.888	2	.444	.349	.706
	Within Groups	809.800	636	1.273		
	Total	810.689	638			
Effective Teachers * Type of Practice	Between Groups (Combined)	13.710	2	6.855	4.975	.007
	Within Groups	876.262	636	1.378		
	Total	889.972	638			
Principles of Adult Learning * Type of Practice	Between Groups (Combined)	5.513	2	2.756	2.148	.118
	Within Groups	816.246	636	1.283		
	Total	821.759	638			
Teaching Portfolio* Type of Practice	Between Groups (Combined)	10.803	2	5.401	2.482	.084
	Within Groups	1384.120	636	2.176		
	Total	1394.923	638			
Evidence-based Medicine * Type of Practice	Between Groups (Combined)	5.300	2	2.650	2.182	.114
	Within Groups	772.527	636	1.215		
	Total	777.827	638			
Small Group Teaching * Type of Practice	Between Groups (Combined)	10.289	2	5.145	2.673	.070
	Within Groups	1224.080	636	1.925		
	Total	1234.369	638			
Large Group Teaching * Type of Practice	Between Groups (Combined)	34.458	2	17.229	8.138	.000
	Within Groups	1346.465	636	2.117		
	Total	1380.923	638			
Effective Use of Audiovisual Aids * Type of Practice	Between Groups (Combined)	30.737	2	15.368	6.802	.001
	Within Groups	1436.957	636	2.259		
	Total	1467.693	638			

TABLE L: Preferred Sites for Faculty Development – per Region

Region		Local	Video conference	Distant	Web cast	Other	Total
ERMEP	Count	53	4	0	9	4	70
	%	75.7%	5.7%	.0%	12.9%	5.7%	100.0%
NOSM-NE	Count	85	21	0	15	10	131
	%	64.9%	16.0%	.0%	11.5%	7.6%	100.0%
NOSM-NW	Count	51	8	0	6	4	69
	%	73.9%	11.6%	.0%	8.7%	5.8%	100.0%
ROMP	Count	91	18	2	30	14	155
	%	58.7%	11.6%	1.3%	19.4%	9.0%	100.0%
SWOMEN	Count	92	2	16	19	5	134
	%	68.7%	1.5%	11.9%	14.2%	3.7%	100.0%
Total	Count	372	53	18	79	37	559
	%	66.5%	9.5%	3.2%	14.1%	6.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	70.809(a)	16	.000
Likelihood Ratio	71.172	16	.000
N of Valid Cases	559		

a 7 cells (28.0%) have expected count less than 5. The minimum expected count is 2.22.

TABLE M: Preferred Sites for Faculty Development – per Range of Years in Practice

Range of Years in Practice		Local	Video Conference	Distant	Web cast	Other	Total
1-5	Count	54	10	4	6	9	83
	%	65.1%	12.0%	4.8%	7.2%	10.8%	100.0%
6-10	Count	76	11	2	16	1	106
	%	71.7%	10.4%	1.9%	15.1%	.9%	100.0%
11-20	Count	125	17	5	36	12	195
	%	64.1%	8.7%	2.6%	18.5%	6.2%	100.0%
21 yrs & up	Count	107	14	6	20	14	161
	%	66.5%	8.7%	3.7%	12.4%	8.7%	100.0%
Total	Count	362	52	17	78	36	545
	%	66.4%	9.5%	3.1%	14.3%	6.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.406(a)	12	.135
Likelihood Ratio	20.309	12	.061
Linear-by-Linear Association	.612	1	.434
N of Valid Cases	545		

a 2 cells (10.0%) have expected count less than 5. The minimum expected count is 2.59.

TABLE N: Preferred Sites for Faculty Development – per Type of Practice

Type of Practice		Local	Video conference	Distant	Web cast	Other	Total
Family Medicine	Count	158	26	6	20	14	224
	%	70.5%	11.6%	2.7%	8.9%	6.3%	100.0%
Specialty Medicine	Count	204	26	12	57	23	322
	%	63.4%	8.1%	3.7%	17.7%	7.1%	100.0%
Total	Count	362	52	18	77	37	546
	%	66.3%	9.5%	3.3%	14.1%	6.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.564(a)	4	.032
Likelihood Ratio	10.962	4	.027
Linear-by-Linear Association	5.774	1	.016
N of Valid Cases	546		

a 0 cell (.0%) have expected count less than 5. The minimum expected count is 7.38.

TABLE O: Preferred Sites for Faculty Development – per Type of Practice in Each Region

Region		Local	Videoconference	Distant	Web cast	Other
ERMEP	Family Medicine	92.9%	7.1%			
	Specialty Medicine	69.2%	5.8%		17.3%	7.7%
NOSM-NE	Family Medicine	66.1%	19.6%		10.7%	3.6%
	Specialty Medicine	64.4%	12.3%		12.3%	11.0%
NOSM-NW	Family Medicine	75.7%	13.5%		5.4%	5.4%
	Specialty Medicine	71.9%	9.4%		12.5%	6.3%
ROMP	Family Medicine	66.7%	11.1%	1.2%	9.9%	11.1%
	Specialty Medicine	49.3%	12.7%	1.4%	29.6%	7.0%
SWOMEN	Family Medicine	72.2%		13.9%	11.1%	2.8%
	Specialty Medicine	67.0%	2.1%	11.7%	14.9%	4.3%

Chi-Square Tests

Region		Value	df	Asymp. Sig. (2-sided)
ERMEP	Pearson Chi-Square	4.364(a)	3	.225
	Likelihood Ratio	7.016	3	.071
	Linear-by-Linear Association	4.104	1	.043
	N of Valid Cases	66		
NOSM-NE	Pearson Chi-Square	3.409(b)	3	.333
	Likelihood Ratio	3.606	3	.307
	Linear-by-Linear Association	1.296	1	.255
	N of Valid Cases	129		
NOSM-NW	Pearson Chi-Square	1.301(c)	3	.729
	Likelihood Ratio	1.313	3	.726
	Linear-by-Linear Association	.489	1	.484
	N of Valid Cases	69		
ROMP	Pearson Chi-Square	10.414(d)	4	.034
	Likelihood Ratio	10.629	4	.031
	Linear-by-Linear Association	3.446	1	.063
	N of Valid Cases	152		
SWOMEN	Pearson Chi-Square	1.387(e)	4	.847
	Likelihood Ratio	1.937	4	.747
	Linear-by-Linear Association	.347	1	.556
	N of Valid Cases	130		

a 5 cells (62.5%) have expected count less than 5. The minimum expected count is .85.
b 1 cell (12.5%) have expected count less than 5. The minimum expected count is 4.34.
c 6 cells (75.0%) have expected count less than 5. The minimum expected count is 1.86.
d 2 cells (20.0%) have expected count less than 5. The minimum expected count is .93.
e 6 cells (60.0%) have expected count less than 5. The minimum expected count is .55.

TABLE P: Preferred Formats for Faculty Development Sessions – per Region

		With Continuing Medical Education	With Other Meeting	Stand Alone	Total
ERMEP	Count	62	5	21	88
	%	70.5%	5.7%	23.9%	100.0%
NOSM-NE	Count	87	16	32	135
	%	64.4%	11.9%	23.7%	100.0%
NOSM-NW	Count	52	5	13	70
	%	74.3%	7.1%	18.6%	100.0%
ROMP	Count	99	22	37	158
	%	62.7%	13.9%	23.4%	100.0%
SWOMEN	Count	93	18	24	135
	%	68.9%	13.3%	17.8%	100.0%
Total	Count	393	66	127	586
	% within Region	67.1%	11.3%	21.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.325(a)	8	.402
Likelihood Ratio	8.980	8	.344
N of Valid Cases	586		

a 0 cell (.0%) have expected count less than 5. The minimum expected count is 7.88.

TABLE Q: Preferred Formats for Faculty Development Sessions – per Range of Years in Practice

Range of Years in Practice		With Continuing Medical Education	With Other Meeting	Stand Alone	Total
1-5	Count	61	14	9	84
	%	72.6%	16.7%	10.7%	100.0%
6-10	Count	76	14	23	113
	%	67.3%	12.4%	20.4%	100.0%
11-20	Count	133	25	48	206
	%	64.6%	12.1%	23.3%	100.0%
21 yrs & up	Count	114	13	44	171
	%	66.7%	7.6%	25.7%	100.0%
Total	Count	384	66	124	574
	% within Year-Range	66.9%	11.5%	21.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.258(a)	6	.081
Likelihood Ratio	12.291	6	.056
Linear-by-Linear Association	3.388	1	.066
N of Valid Cases	574		

a 0 cell (.0%) have expected count less than 5. The minimum expected count is 9.66.

TABLE R: Preferred Formats for Faculty Development Sessions – per Type of Practice

Type of Practice		With Continuing Medical Education	With Other Meeting	Stand Alone	Total
Family Medicine	Count	160	21	61	242
	%	66.1%	8.7%	25.2%	100.0%
Specialty Medicine	Count	221	45	66	332
	%	66.6%	13.6%	19.9%	100.0%
Total	Count	381	66	127	574
	% within Type of Practice	66.4%	11.5%	22.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.694(a)	2	.096
Likelihood Ratio	4.766	2	.092
Linear-by-Linear Association	.677	1	.411
N of Valid Cases	574		

a 0 cell (.0%) have expected count less than 5. The minimum expected count is 27.83.

TABLE S: Preferred Timings for Faculty Development Sessions – per Region

Region		Weekday day Long	Weekday Morning	Weekday Afternoon	Weekday Evening	Saturday Morning	Saturday All Day	Total
ERMEP	Count	13	2	8	15	10	15	63
	%	20.6%	3.2%	12.7%	23.8%	15.9%	23.8%	100.0%
	% within Preferred Timing	10.6%	2.3%	9.6%	10.8%	14.5%	21.7%	11.1%
NOSM-NE	Count	29	31	15	32	11	12	130
	%	22.3%	23.8%	11.5%	24.6%	8.5%	9.2%	100.0%
	% within Preferred Timing	23.6%	36.0%	18.1%	23.0%	15.9%	17.4%	22.8%
NOSM-NW	Count	9	18	14	20	5	3	69
	%	13.0%	26.1%	20.3%	29.0%	7.2%	4.3%	100.0%
	% within Preferred Timing	7.3%	20.9%	16.9%	14.4%	7.2%	4.3%	12.1%
ROMP	Count	46	18	27	34	18	22	165
	%	27.9%	10.9%	16.4%	20.6%	10.9%	13.3%	100.0%
	% within Preferred Timing	37.4%	20.9%	32.5%	24.5%	26.1%	31.9%	29.0%
SWOMEN	Count	26	17	19	38	25	17	142
	%	18.3%	12.0%	13.4%	26.8%	17.6%	12.0%	100.0%
	% within Preferred Timing	21.1%	19.8%	22.9%	27.3%	36.2%	24.6%	25.0%
Total	Count	123	86	83	139	69	69	569
	% within Region	21.6%	15.1%	14.6%	24.4%	12.1%	12.1%	100.0%
	% within Preferred Timing	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	50.765(a)	20	.000
Likelihood Ratio	51.562	20	.000
N of Valid Cases	569		

a 0 cell (.0%) have expected count less than 5. The minimum expected count is 7.64.

TABLE T: Preferred Timings for Faculty Development Sessions – per Range of Years in Practice

Range of Years in Practice		Weekday day Long	Weekday Morning	Weekday Afternoon	Weekday Evening	Saturday Morning	Saturday All Day
1-5	Count	16	16	12	23	8	6
	%	19.8%	19.8%	14.8%	28.4%	9.9%	7.4%
6-10	Count	26	22	11	26	18	10
	%	23.0%	19.5%	9.7%	23.0%	15.9%	8.8%
11-20	Count	40	29	36	52	18	19
	%	20.6%	14.9%	18.6%	26.8%	9.3%	9.8%
21 yrs & up	Count	41	19	22	33	22	31
	%	24.4%	11.3%	13.1%	19.6%	13.1%	18.5%
Total	Count	123	86	81	134	66	66
	%	22.1%	15.5%	14.6%	24.1%	11.9%	11.9%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.930(a)	15	.066
Likelihood Ratio	23.471	15	.075
Linear-by-Linear Association	2.105	1	.147
N of Valid Cases	556		

a 0 cell (.0%) have expected count less than 5. The minimum expected count is 9.62.

TABLE U: Preferred Timings for Faculty Development Sessions – per Type of Practice

Type of Practice		Weekday day Long	Weekday Morning	Weekday Afternoon	Weekday Evening	Saturday Morning	Saturday All Day
Family Medicine	Count	53	37	40	53	22	24
	%	23.1%	16.2%	17.5%	23.1%	9.6%	10.5%
Specialty Medicine	Count	67	49	43	81	45	42
	%	20.5%	15.0%	13.1%	24.8%	13.8%	12.8%
Total	Count	120	86	83	134	67	66
	%	21.6%	15.5%	14.9%	24.1%	12.1%	11.9%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.952(a)	5	.422
Likelihood Ratio	4.986	5	.418
Linear-by-Linear Association	2.706	1	.100
N of Valid Cases	556		

a 0 cell (.0%) have expected count less than 5. The minimum expected count is 27.18.

TABLE V: Interest for Videoconference Grand Rounds – per Region

Region		Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree	Total
ERMEP	Count	13	55	16	6	3	93
	%	14.0%	59.1%	17.2%	6.5%	3.2%	100.0%
NOSM-NE	Count	47	54	16	17	11	145
	%	32.4%	37.2%	11.0%	11.7%	7.6%	100.0%
NOSM-NW	Count	20	40	9	5	0	74
	%	27.0%	54.1%	12.2%	6.8%	.0%	100.0%
ROMP	Count	30	71	26	33	12	172
	%	17.4%	41.3%	15.1%	19.2%	7.0%	100.0%
SWOMEN	Count	29	69	17	17	14	146
	%	19.9%	47.3%	11.6%	11.6%	9.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	42.958(a)	16	.000
Likelihood Ratio	47.013	16	.000
N of Valid Cases	630		

a 1 cell (4.0%) have expected count less than 5. The minimum expected count is 4.70.

TABLE W: Interest for Videoconference Grand Rounds – per Range of Years in Practice

Range of Years in Practice		Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree	Total
1-5	Count	24	42	10	11	2	89
	%	27.0%	47.2%	11.2%	12.4%	2.2%	100.0%
6-10	Count	34	62	11	6	6	119
	%	28.6%	52.1%	9.2%	5.0%	5.0%	100.0%
11-20	Count	46	96	31	31	18	222
	%	20.7%	43.2%	14.0%	14.0%	8.1%	100.0%
21 yrs & up	Count	33	83	28	29	14	187
	%	17.6%	44.4%	15.0%	15.5%	7.5%	100.0%
Total	Count	137	283	80	77	40	617
	%	22.2%	45.9%	13.0%	12.5%	6.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.826(a)	12	.070
Likelihood Ratio	22.035	12	.037
Linear-by-Linear Association	11.549	1	.001
N of Valid Cases	617		

a 0 cell (.0%) have expected count less than 5. The minimum expected count is 5.77.

TABLE X: Interest for Videoconference Grand Rounds – per Type of Practice

Type of Practice		Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree	Total
Family Medicine	Count	31	108	44	50	22	255
	%	12.2%	42.4%	17.3%	19.6%	8.6%	100.0%
Specialty Medicine	Count	105	175	36	27	17	360
	%	29.2%	48.6%	10.0%	7.5%	4.7%	100.0%
Total	Count	136	283	80	77	39	615
	%	22.1%	46.0%	13.0%	12.5%	6.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.908(a)	4	.000
Likelihood Ratio	48.952	4	.000
Linear-by-Linear Association	41.521	1	.000
N of Valid Cases	615		

a 0 cell (.0%) have expected count less than 5. The minimum expected count is 16.17.

APPENDIX 8: DETAILED LIST OF BARRIERS TO TEACHING

	% of all barriers listed	% of preceptors indicating barrier	Family physician mentioning the barrier		Royal College Specialist mentioning the barrier	
			#	%	#	%
Time-Total	**46**	**86**	**229**	**(41)**	**317**	**(57)**
Time-General	32	63	176	(45)	211	(54)
Loss of freedom	2	4	6	(32)	11	(58)
Slows pace	3	6	10	(28)	26	(72)
Practice too busy	6	11	23	(34)	44	(65)
Competing priorities	3	6	14	(36)	25	(64)
Teacher Concerns - Total	**14**	**37**	**79**	**(46)**	**91**	**(53)**
Teacher – General	4	7	21	(48)	23	(52)
Lack of comfort/experience	5	5	32	(52)	29	(47)
Unsure of goals	5	12	23	(38)	37	(62)
Lack of knowledge	6	7	33	(46)	38	(54)
Lack of peer support	1	1	2	(20)	8	(80)
Teacher fatigue	0	7	3	(60)	2	(40)
Student Related - Total	**14**	**26**	**83**	**(49)**	**86**	**(51)**
Student – General	2	5	12	(40)	18	(60)
Difficult/unmotivated	7	16	46	(53)	39	(45)
Level of comfort/experience	4	8	21	(44)	27	(56)
Lack of fit	0	1	4	(67)	2	(33)
Negative Financial Impact	**9**	**17**	**41**	**(39)**	**63**	**(61)**
Patients-Total	**6**	**12**	**44**	**(64)**	**25**	**(36)**
Patients' discomfort	5	10	41	(68)	19	(32)
Potential liability	1	1	3	(33)	6	(67)
Space & Admin. Assistance	**5**	**9**	**29**	**(52)**	**27**	**(48)**
Lack of Resources	**3**	**6**	**14**	**(36)**	**25**	**(64)**
Other	**2**	**5**	**12**	**(41)**	**16**	**(55)**
Geographic	**1**	**2**	**5**	**(42)**	**7**	**(58)**

APPENDIX 9: BARRIERS TO TEACHING IN RELATION TO YEARS IN CLINICAL PRACTICE

	% of barrier	% preceptors indicating barrier	Years in Clinical Practice											
			1-5		6-10		11-15		16-20		21-25		26+	
Time-Total	**(46)**	**(86)**	**81**	**(15)**	**117**	**(21)**	**96**	**(17)**	**108**	**(20)**	**66**	**(12)**	**76**	**(14)**
Time-General	(32)	(63)	55	(14)	86	(22)	67	(17)	70	(18)	49	(13)	59	(15)
Loss of freedom	(2)	(4)	1	(5)	5	(26)	5	(26)	5	(26)	2	(11)	1	(5)
Slows pace	(3)	(6)	6	(17)	6	(17)	7	(19)	8	(22)	5	(14)	4	(11)
Practice too busy	(6)	(11)	13	(19)	14	(21)	11	(16)	12	(18)	5	(7)	10	(15)
Competing priorities	(3)	(6)	6	(15)	6	(15)	6	(15)	13	(33)	5	(13)	2	(5)
Teacher concerns – Total	**(14)**	**(37)**	**19**	**(11)**	**31**	**(18)**	**22**	**(13)**	**43**	**(25)**	**21**	**(12)**	**35**	**(20)**
Teacher – General	(4)	(7)	6	(14)	6	(14)	8	(18)	10	(23)	7	(16)	7	(16)
Lack of comfort/experience	(5)	(5)	4	(6)	16	(26)	8	(13)	17	(27)	7	(11)	10	(16)
Unsure of goals	(5)	(12)	9	(15)	9	(15)	6	(10)	13	(22)	7	(12)	16	(27)
Lack of knowledge	(6)	(7)	9	(13)	16	(23)	11	(15)	10	(14)	12	(17)	11	(15)
Lack of peer support	(1)	(1)	2	(20)	1	(10)	0	0	3	(30)	3	(30)	0	0
Teacher fatigue	(0)	(7)	0	0	0	0	0	0	3	(60)	0	0	2	(40)
Student Related – Total	**(14)**	**(26)**	**24**	**(14)**	**32**	**(19)**	**41**	**(24)**	**22**	**(13)**	**17**	**(10)**	**24**	**(14)**
Student – General	(2)	(5)	6	(20)	9	(30)	3	(10)	2	(7)	2	(7)	6	(20)
Difficult/unmotivated	(7)	(16)	13	(15)	18	(21)	21	(24)	7	(8)	10	(12)	10	(12)
Level of comfort/experience	(4)	(8)	5	(10)	5	(10)	15	(31)	12	(25)	3	(6)	7	(15)
Lack of fit	(0)	(1)	0	0	0	0	2	(33)	1	(17)	2	(33)	1	(17)
Negative Financial Impact	(9)	(17)	16	(15)	21	(20)	24	(23)	17	(16)	18	(17)	5	(5)

Patients-Total	(6)	(12)	13	(19)	9	(13)	20	(29)	17	(25)	5	(7)	4	(6)
Patients Uncomfortable	(5)	(10)	12	(20)	7	(12)	18	(30)	14	(23)	4	(7)	4	(7)
Potential Liability	(1)	(1)	1	(11)	2	(22)	2	(22)	3	(33)	1	(11)	0	0
Space & Admin. Assistance	(5)	(9)	6	(11)	10	(18)	14	(25)	10	(18)	11	(20)	4	(7)
Lack of resources	(3)	(6)	9	(23)	5	(13)	7	(18)	4	(10)	6	(15)	7	(18)
Other	(2)	(5)	2	(7)	9	(31)	2	(7)	3	(10)	1	(3)	12	(41)
Geographic	(1)	(2)	1	(8)	0	0	4	(33)	3	(25)	4	(33)	0	0

APPENDIX 10: PREFERRED FACULTY DEVELOPMENT TOPICS PER REGION (1=Very Interested; 5=Not Interested)

TOPIC	ERMEP		NOSM-NE		NOSM-NW		ROMP		SWOMEN	
	Mean (SD)	Rank	Mean (SD)	Rank	Mean (SD)	Rank	Mean (SD)	Rank	Mean (SD)	Rank
University expectations of preceptors and learners	1.95 (1.21)	7					1.80 (1.46)	8		
Review of educational objectives for learners	2.09 (1.13)	9	2.17 (1.04)	5	1.93 (0.94)	4	1.45 (1.24)	1	2.32 (1.07)	9
Time-efficient precepting / teaching	1.67 (0.99)	2	2.00 (1.07)	3	1.71 (0.91)	1			2.07 (1.05)	2
Providing effective feedback	1.86 (1.01)	3	1.96 (1.00)	2	1.88 (1.04)	2	1.47 (1.24)	2	2.00 (1.01)	1
Assessing learner performance	1.92 (1.11)	6	1.95 (0.95)	1	1.92 (0.98)	3			2.12 (1.01)	3
The learner profile							1.80 (1.44)	7		
Ethical principles in medical teaching							1.76 (1.41)	4		
Med-Tech resources for teaching and/or clinical practice	2.00 (1.38)	8	2.31 (1.10)	9	2.29 (0.93)	9			2.30 (1.15)	6
Accessing and effectively using library resources			2.37 (1.09)	10			1.80 (1.47)	9		
Dealing with the learner in academic difficulty					2.21 (1.03)	7	1.76 (1.48)	5		

	ERMEP		NOSM-NE		NOSM-NW		ROMP		SWOMEN	
	Mean (SD)	**Rank**	**Mean (SD)**	**Rank**	**Mean (SD)**	**Rank**	**Mean (SD)**	**Rank**	**Mean (SD)**	**Rank**
The difficult learner					2.31 (1.13)	10			2.43 (1.14)	10
Teaching procedural skills	1.90 (1.19)	5	2.26 (1.14)	7	2.24 (0.82)	8	1.79 91.45)	6	2.25 (1.07)	5
Ambulatory care teaching	1.88 (1.23)	4	2.31 (1.08)	8					2.32 (1.06)	8
Characteristics of effective teachers	1.59 (1.17)	1	2.22 (1.05)	6	2.09 (0.98)	6	1.66 (1.34)	3	2.16 (1.05)	4
Evidence Based Medicine	2.09 (1.26)	10	2.02 (1.04)	4	2.08 (0.97)	5			2.31 (1.11)	7
Effective use of audiovisual aids							1.90 (1.60)	10		