

<b>R&amp;D-01</b>	<b>Rural Palliative Care Education: Results of a Hybrid Course with Face-to-Face and Online Learning</b> <i>Jose Pereira, Terri Collin, University of Calgary</i>
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Background: We delivered a compulsory palliative care course to a rural family medicine program using a combination of instructional strategies that included face-to-face instruction, online instruction, and objective structured clinical examinations (OSCEs). Methods: Pre- and post-course knowledge quizzes, attitude surveys, OSCEs and focus groups were used to assess course effectiveness. Results: There was a significant improvement in knowledge overall when comparing pre and post-knowledge tests ( $p < 0.001$ ). Residents' overall attitudes related to caring for the terminally ill patients (TIP) were positively influenced by participation in the course. Residents rated that they felt more comfortable and more competent in delivering caring for TIP (mean=4.53 on a 5-point Likert Scale) after participation in the course. Overall the course was well received. Conclusions: A course using multiple instructional strategies and technologies met the palliative care learning needs of rural residents. Lessons learned are applicable to other disciplines and Web-based distance learning programs.

<b>R&amp;D-02</b>	<b>Collaborating to develop an undergraduate curriculum for Ontario: an example from palliative care</b> <i>Pippa Hall, University of Ottawa; Albert Kirshen, University of Toronto; Denise Marshall, McMaster University; Cori Schroder, Queen's University; Dana Winterburn, University of Western Ontario; Doreen Oneschuk, University of Calgary</i>
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Our lack of success in integrating education in palliative/end-of-life care into the undergraduate medical curriculum in universities across Canada has been documented<sup>1</sup>. The Undergraduate Committee of the Canadian Society of Palliative Care Physicians (UC-CSPCP) has been working on a national initiative to address this need. Representatives of five Ontario universities have collaborated to develop a set of objectives as a basis for curriculum development, using the competencies of CanMEDS, and identifying the necessary knowledge, skills and attitudes for each identified competency. Each faculty can then develop its own method of achieving the objectives, based on its unique needs and resources. The objectives were further validated at the 2004 annual meeting of UC-CSPCP .

The presentation will review the collaborative process, examples of the objectives for the nine subject areas that have been developed, and will discuss the next steps being taken by the group, the Ontario Palliative Undergraduate Nucleus (OPUN).

Reference: 1. Oneschuk D, et al. J Palliat Care 2004;20(1):32-37

<b>R&amp;D-03</b>	<b>Enhancing Rural Interprofessional Palliative Care Teams: An Innovative Leadership Development Program</b> <i>Pippa Hall, Lynda Weaver, Maryse Bouvette, Richard Handfield-Jones, University of Ottawa</i>
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The SCO Health Service Palliative Care Program, associated with the University of Ottawa, has developed an interprofessional continuing professional development program that fosters the development of interprofessional teams in eight rural communities. Each team, which must include at least one physician, has developed, implemented and evaluated one or more local community educational project over the past four years.

In order to maintain an effective and vibrant interprofessional team, leadership skills are important. This project explores the leadership experiences of these teams as they have evolved. Interviews and focus groups are being held to identify best practices, challenges, the need for leadership skill development and possible educational interventions that can further support the teams. The results of the data analyses will be presented.

<b>R&amp;D-04</b>	<b>Le projet de l'AFMC pour les communautés francophones minoritaires : résultats à mi-parcours</b> <b>The AFMC project for francophone minority communities: mid-term results</b> <i>Paul Grand'Maison, Dorothee Ouellette, Aurel Schofield, Marianne Xhignesse, Université de Sherbrooke; Brigitte Bonin, Jean Roy, Université d'Ottawa; José François, Université du Manitoba</i>
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Le projet de l'AFMC portant sur les communautés francophones minoritaires (CFM) est en marche depuis novembre 2003. Les objectifs prévus sont progressivement atteints. Les étudiants des facultés de médecine du Canada provenant des communautés francophones minoritaires sont graduellement mis en réseau et les stages de formation dans les CFM ont débuté. Le projet tiendra en novembre 2004, une rencontre nationale de formation (50 participants attendus) sur L'interdisciplinarité en médecine de famille : comment la pratiquer? Comment l'enseigner? D'ici mars 2005, des activités de formation (1 journée) seront tenues régionalement dans les CFM sur les thèmes suivants : " soins de santé primaires, médecine de famille et interdisciplinarité" (3 sessions); et " communication patient-médecin " (2 ou 3 sessions). Elles porteront sur la pratique clinique et sur la formation des futurs professionnels. Les premiers résultats de l'évaluation du projet seront présentés. Les difficultés rencontrées et les leçons à tirer seront discutés.

The AFMC project for francophone minority communities (FMC) was started in November 2003. The planned objectives are progressively being met. Students from Canadian Medical Faculties coming from FMC are progressively networked and clinical rotations in FMC have been started. In November 2004 up to March 2005, the project will hold a national educational forum (50 participants expected) on "Interdisciplinarity in family medicine: how should it be practiced? How should it be taught? Educational workshops (1 day-long) will be held regionally in FMC on the following themes: "primary health care, family medicine and interdisciplinarity" (3 sessions); and "patient physician communication" (2 or 3 sessions). These sessions will focus on clinical practice as well as on the education of future professionals. The first evaluation results of the project will be presented. Difficulties met and lessons learned will be discussed.

<b>R&amp;D-05</b>	<p><b>Le portfolio à l'externat: Une modalité pédagogique en soutien au développement professionnelle et personnelle de l'externe</b>  <b>The portfolio in the clerkship: An educational approach fostering the professional and personal development of clerks</b>  <i>Serge Langevin, Paul Grand'Maison, Bernard Martineau, René Hivon, Université de Sherbrooke</i></p>
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La Faculté de médecine de l'Université de Sherbrooke a adopté un nouveau cadre conceptuel pour assurer une plus grande cohérence et intégration au niveau de l'externat. Cette réforme accorde un rôle clé au portfolio dans les domaines suivants : faciliter la prise en charge par les externes de leur développement professionnel, promouvoir leur capacité de réflexion sur leurs apprentissages et actions, et offrir un monitoring longitudinal de leur développement professionnel. Pour réaliser ces objectifs, le portfolio doit souscrire à plusieurs conditions : son intégration dans un curriculum centré sur l'étudiant, l'adoption de finalités explicites, une mission sans ambiguïté, sa propriété confiée à l'étudiant, sa confidentialité, et la mise en place d'un système de mentorat. Pour son implantation, trois défis sont à relever: la conception d'un format pratique, sa contribution précise dans l'évaluation et son application à large échelle. L'adoption du portfolio s'avère un défi audacieux mais plein de promesses.

A new conceptual framework has been adopted in Sherbrooke to convert the clerkship into a more coherent and structured experience. This reform of the clerkship confers a key role to the portfolio. Three missions have been assigned to the portfolio: to assist learners to take charge of their professional development, to promote their reflective abilities on their action and learning, and to provide longitudinal monitoring of their professional development. To assume effectively these missions, several conditions must be fulfilled: its integration inside a learner centered curriculum, explicit learning outcomes, clarity about its roles, learner's ownership, its confidentiality, and a supportive mentoring system. For its successful implementation, the following issues should however be defined: the final form and content of the portfolio, its precise contribution to the entire assessment, and its large scale application. In spite of its promising issues, the portfolio's implementation remains a major challenge for the clerkship program.

<b>R&amp;D-06</b>	<p><b>Unveiling the hidden curriculum: first year perceptions from an ethnographic study at Memorial University of Newfoundland</b>  <i>Andrew Latus, Maria Mathews, Memorial University of Newfoundland</i></p>
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There is a general consensus among medical educators that a "hidden curriculum" shapes the ethical character of medical students to greater degree than formal ethics instruction. Using a combination of journaling, interviews and focus groups, this ethnographic study follows Dr. Andrew Latus, a PhD trained philosopher and medical ethicist, as he completes medical school. We report on our first year findings. We will describe the hidden curriculum and its impact on students and their perception of medical ethics.

We will also identify opportunities in the curriculum to strengthen medical ethics training. Although the hidden curriculum has been a topic of interest for several decades, to date, only a handful of studies examined its operation in the realm of medical education. This study adds to our understanding of the hidden curriculum and its influence on medical students' perceptions of ethics and professionalism.

<b>R&amp;D-07</b>	<b>Comparing Two Cooperative Learning Activities for Third Year Physical Therapy and Medical Students at the University of Saskatchewan</b> <i>Marcel D'Eon, University of Saskatchewan</i>
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Structured Controversy (SC) is a cooperative learning activity in which teams of students engage in a friendly semi-structured debate on a controversial topic.

We observed that SC was a unique learning experience. We thought that SC, even when compared to another cooperative activity, would result in more learning, more interest in the topic, higher activity evaluation scores, and more change of opinion.

We ran a randomized controlled trial in the fall of 2002, 2003, and 2004 with over 80 medical and physical therapy students together in the same course. The control group subjects took part in a standard group discussion. We found that there were no differences between the two groups except for changes in opinions held on the topic. We discovered that those who had engaged in SC changed their opinion more than those who participated in the control group.

We offer some explanation for the data we collected.

<b>R&amp;D-08</b>	<b>Assessing Faculty Needs for Faculty Development: Continuity or Change?</b> <i>Stephen Liben, Yvonne Steinert, Sarkis Meterissian, Miriam Boillat, Peter J. McLeod, McGill University</i>
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To ensure that our faculty development program remains responsive we surveyed faculty members to assess needs in four areas: teaching & learning; technology for teaching & research; academic development; and administration & management. We based the 25 survey items on a previous needs assessment in 1997. 550 faculty members (30% response rate) completed the survey and rated the following 5 items as most important for their development: evaluating students & residents; using presentation software for teaching; small group teaching; clinical teaching; and giving feedback. 56 % of respondents had previously participated in a faculty development workshop; 90% reported lack of time as the major reason for inability to participate in faculty development activities. Compared to the 1997 survey the present needs assessment reveals that faculty members continue to place a high priority on their need to improve teaching skills in different settings.

<b>R&amp;D-09</b>	<b>Primary and Preventive Health Care in Medical Students: Barely a pass</b> <i>Caroline Collins, Anna Day, University of Toronto</i>
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A web-based survey was used to determine whether University of Toronto medical students are receiving appropriate and adequate primary and preventive health care. 231 of 600 eligible students responded (38%). 90% of medical students reported having had some type of health care in the past year and women had significantly more health care in the past year than men ( $p < .05$ ). 42% of medical students felt they should have seen a primary care practitioner, and of these 71% did not because they were too busy with medical school. 20% of women and 8% of men had seen or thought they should have seen someone for feeling stressed out / depressed / tired. Medical students who did not have a family physician (19%) were more likely to feel they should have seen a primary care practitioner. There was substantial usage of walk-in clinics (25%) and emergency departments (10%) by respondents. Medical schools should be aware that their students may not be receiving appropriate health care, primarily due to time constraints of medical school, and consider whether programs need to be established to address this issue.

<b>R&amp;D-10</b>	<b>Validating the mini-cex as an assessment of clinical competence</b> <i>Rose Hatala, University of British Columbia; Martha Ainslie, University of Calgary; Barry Kassen, Iain Mackie, University of British Columbia</i>
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The mini-clinical evaluation exercise (mini-CEX) is a brief, focused, observed clinical history, physical examination and/or discussion of a management plan used by many undergraduate and post-graduate programs to assess clinical competence. We evaluated the validity of the mini-CEX compared to a high-stakes assessment of clinical competence, the RCPSC Internal Medicine specialty exam. Twenty

two PGY-4 residents at the University of British Columbia and the University of Calgary were evaluated, during the year preceding their Royal College exam, with a mean of 5.5 mini-CEX encounters (range 3 to 6). Five experienced Royal College examiners from each site traveled to the alternate university to observe the encounters. The correlation between residents' overall performance on the mini-CEX encounters and their 2004 RCPSC Internal Medicine oral exam score was 0.52 ( $p = 0.01$ ). The mini-CEX appears to be a valid measure of clinical competence.

<b>R&amp;D-11</b>	<b>Perspectives on teaching and faculty peer review</b> <i>Carol-Ann Courneya, John Collins, Dan Pratt, University of British Columbia</i>
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Peer evaluation of teaching is a requirement for teachers in Canadian medical schools. Yet, there is little research on one of the most serious problems associated with peer evaluation, i.e., the tendency of evaluators to hold a single view of effective teaching. This study tested three related hypotheses:  
 .Pre-treatment feedback will be skewed toward reviewer's dominant teaching perspective;  
 .Post-treatment feedback will NOT be skewed toward reviewer's dominant teaching perspective;  
 .Exposure to alternative teaching perspectives will alter the way reviewers think about peer reviews;  
 Twenty-five participants individually and separately rated the effectiveness of teaching observed in two trigger videos, pre and post exposure to two treatments: The Teaching Perspectives Inventory (TPI); and a 2 hour workshop where five different perspectives on teaching were described and discussed. Findings confirm the problem and provide evidence of how intervention can counter-act such tendencies toward biased reviews in peer evaluation of teaching.

<b>R&amp;D-12</b>	<b>Failure to Fail - The Perspectives of Clinical Supervisors</b> <i>Nancy Dudek, Meridith Marks, University of Ottawa; Glenn Regehr, University of Toronto</i>
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Purpose: Clinical supervisors often do not fail students and residents even though they have judged the performance to be unsatisfactory. This study explored the factors identified by evaluators that affect their willingness to report negative clinical performance when completing In-Training Evaluation Reports (ITERS).

Method: Semi-structured interviews with 21 clinical supervisors at the University of Ottawa were conducted and qualitatively analyzed.

Results: Responsibility to the public, the profession and the trainee were identified as the major motivators to identify a trainee as having difficulty. Participants identified four major areas of the evaluation process that act as barriers to reporting a trainee who has performed poorly: 1) lack of documentation, 2) lack of knowledge of what to specifically document, 3) anticipating an appeal process and 4) lack of remediation options.

Conclusion: The study provides insight as to why supervisors fail to fail the poorly performing student and resident. It also offers suggestions of how to support supervisors, increasing the likelihood that they will provide a valid ITER when faced with an underachieving trainee.

<b>R&amp;D-13</b>	<b>Current practice location of Memorial University of Newfoundland medical residents (1973-1998): Do we produce rural physicians?</b> <i>James Rourke, Maria Mathews, Alison Edwards, Amanda Park, Memorial University of Newfoundland</i>
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The medical program at Memorial University of Newfoundland (MUN) includes a strong rural component. However, it is unknown whether MUN residents are likely to practice in rural communities after their training. We linked data from the Southam medical database, the MUN medical alumni database, the post-graduate database, and information from the MUN publications to examine the current practice location of residents who completed some or all of their residency at MUN by 1998). We examined whether residents currently 1) work in Canada, 2) work in NL, 3) work in rural communities, and 4) work in rural NL. We used multiple logistic regression to identify predictors (e.g. graduation year, school, and age; years of residency at MUN; sex; specialty) for each of these four outcomes. The study assesses the extent to which the MUN post-graduate program contributes to the rural physician workforce in NL and informs rural physician supply policies.

<b>R&amp;D-14</b>	<p><b>Career Decisions at the Generalism/Subspecialty Interface: What are the influences?</b>  <i>George Goldsand, University of Alberta; William Pollett, Memorial University of Newfoundland; Dianne Thurber, CAPER</i></p>
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Declining interest in generalist careers concerns health planners. Qualitative and quantitative data of trends toward increasing subspecialization by physicians who entered the Canadian Internal Medicine/General Surgery workforce from 1991 - 2002 will be presented. Data were derived from CAPER, RCPSC and surveys of 1298 internists and 756 surgeons with response rates of 58% and 54% respectively. Results will highlight subspecialization rates, scopes and location of practice and factors influencing career choice. Responses to open-ended questions from over 600 physicians will be presented as various themes, including the important role of faculty in determining the balance between generalism and subspecialization. The failure to present "generalism" as a respected career option, together with inherent conflict between subspecialized practices of university centers (where most specialists are trained) and the more generalist needs of communities, compromises the ability of medical schools to discharge their social responsibility to produce appropriate numbers and types of physicians to meet societal need.

<b>R&amp;D-15</b>	<p><b>Why Would I Choose a Career in Family Medicine: Influences Across the Continuum of Learning</b>  <i>Ian Scott, University of British Columbia; Bruce Wright, University of Calgary; Pamela Brett-MacLean, Fraser Brenneis, University of Alberta</i></p>
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We describe the factors that influence medical students' decision to stay with or switch their career choice using qualitative methods. We identified medical students who declared an interest in Family Medicine or another Specialty during the first two weeks of medical school. Eighteen months later these entering cohorts were resurveyed and focus groups and interviews were conducted at each school with those who had maintained their initial career choice or switched their initial career choice to Family Medicine. Students identified several important influences that were grouped as: 1) pre-medical school, 2) medical school, 3) postgraduate training, and 4) practice life influences. There were many positive and negative characterisations of family medicine in the pre-clinical period of medical school. Clinical exposure was critical in demonstrating the positive aspects of Family Medicine. Postgraduate training and future practice life considerations also influenced students' career choices.

<b>R&amp;D-16</b>	<p><b>A comparison of Physician Examiners and Trained Assessors in a High Stake OSCE Setting</b>  <i>Susan Humphrey-Murto, University of Ottawa; Sydney Smee, Medical Council of Canada; Claire Touchie, University of Ottawa; Richard Birtwhistle, Queen's University; Timothy Wood, University of Ottawa; David Blackmore, Medical Council of Canada</i></p>
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Background:

Physician examiners are used to evaluate examinees in many OSCEs, however, recruitment of physicians is increasingly difficult. It is important to determine if alternate assessors can be used as examiners.

Methodology:

Healthcare workers were trained on how to evaluate an examinee for 3 stations on a high stakes OSCE. Trained observers and physician examiners simultaneously viewed examinees on these stations and ratings were compared.

Results:

Results show similar mean scores and high correlations for both the physicians and the trained observers on the checklists, however, several areas were identified in which there were differences of agreement between the two types of assessors.

Conclusion:

Trained assessors may be able to play a role in physician assessment. Variables leading to differences between trained assessors and physician examiners will be discussed.

<b>R&amp;D-17</b>	<p><b>Assessment of Non-Cognitive Attributes In Medical School Students: Characteristics Of Good Doctors?</b>  <i>Tyrone Donnon, Elizabeth Oddone Paolucci, University of Calgary</i></p>
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Purpose: To determine the reliability and validity of measuring the personal characteristics attributed to

good physicians (e.g., altruism, trustworthiness) through an alternative independent, semi-structured psychological interview approach to the medical school admission process.

Methods: A sample of 29 first year students (Class of 2007) admitted to medical school participated voluntarily in the completion of a 50 item self-reported questionnaire and a 30 minute, tape-recorded interview based on an open-ended response to four medical related vignettes.

Results: An interrater reliability coefficient of Kappa = 0.85 was obtained for the medical vignettes. The concurrent validity coefficients between the self reported questionnaire and vignettes ranged between  $r=.30$  to  $r=.70$ ; ( $p < .01$ ). Overall admission criteria ratings showed moderate correlations with the vignettes.

Conclusion: The semi-structured, psychological interview demonstrates potential for an alternative approach to measuring non-cognitive attributes of candidates for medical school. Further longitudinal research will explore the predictive validity of medical vignettes.

<b>R&amp;D-18</b>	<b>Extended Match compared to Short Answer formats in the written portion of an OSCE</b> <i>Susan Humphrey-Murto, Claire Touchie, University of Ottawa; Sydney Smee, Medical Council of Canada; Timothy Wood, University of Ottawa</i>
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Background:

Examinees are often asked to interpret investigations in OSCEs. Short answer questions (SAQs) are often used to assess this skill. Scoring SAQs can be difficult, inefficient and subjective. Extended matching items (EM) may be a viable alternative because they are more objective and scoring is more efficient. However, EM may be less valid than other formats.

Purpose:

The purpose of this study was to compare the performance on SAQ and EM formats in an undergraduate OSCE.

Methods:

A total of 118 fourth year students were randomly assigned to SAQ (n=63) or EM (n=55) formats to interpret a CXR. The questions were identical, and only the format varied.

Results:

The score for the station was similar for both the SAQ group (5.97/10) and the EM group (5.95/10),  $p=0.934$ .

Conclusion:

There was no significant difference between the two formats. Further post-hoc analysis will be presented.

<b>R&amp;D-19</b>	<b>Systems Design in Medical Education</b> <i>Ian Johnson, Naill Byrne, Katherine MacRury, University of Toronto</i>
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The amount of material required of medical students continues to grow exponentially. With fixed curriculum time and the broader demands on graduating physicians to know more facts and be aware of the social and environmental determinants of health, there is pressure on medical curriculums to become more efficient. Curriculum design would thus appear to be a key element in this discussion but design in medical education is a not commonly discussed; let alone viewed from a theoretical or empirical perspective. The plethora of different curricula across medical schools in Canada, the US and Europe speak to this variation and the adaptation of curriculum to local issues, resources and approaches. This presentation explores the various approaches to design in the undergraduate curriculum. We wish to review the evidence on this subject and then present some work that has been initiated in the Determinants of Community Health Course at the University of Toronto.

<b>R&amp;D-20</b>	<b>Looking Back: Retrospective Self-evaluation of Feedback Skills</b> <i>Alexandra Harrison, University of Calgary; Marcel D'Eon, University of Saskatchewan; Jill Nation, University of Calgary; Leslie Sadownik, University of British Columbia; Peter Harasym, University of Calgary</i>
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Research Question: Is retrospective self-evaluation of feedback skills by learners, comparable to assessment by external evaluators?

Methods: 42 residents completed two half-day workshops on How to give Feedback and were videotaped

giving feedback to standardized students (Actors). 3 groups assessed feedback skills Before and After the workshops:

- a) actors who received feedback,
- b) external videotape raters, blinded if the tapes were Before or After, and
- c) workshop participants, who also assessed their own performance retrospectively.

All 3 groups used the same 22 item questionnaire.

Results: There was a statistically significant improvement in feedback skills assessed by Actors, External Raters and Participants. For Residents, there was a modest correlation (.46) between mean 'Before' and 'Retrospective' scores. There was a weak correlation (.33) between External Raters and Actors 'Before' but no correlation with retrospective self-evaluation.

Conclusion: Retrospective self-evaluation captures an improvement in self-rated performance, but it is not a substitute for other forms of external evaluation.

<b>R&amp;D-21</b>	<b>Development and assessment of a multi source feedback evaluation system for physicians new to Canada on special licenses</b> <i>Jocelyn Lockyer, Rod Crutcher, University of Calgary; David Blackmore, Medical Council of Canada; Norman Wolfish, Children's Hospital of Eastern Ontario; Bryan Salte, Karen Shaw, College of Physicians and Surgeons of Saskatchewan; Bryan Ward, College of Physicians and Surgeons of Alberta; Herta Fidler, University of Calgary</i>
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Purpose: To test feasibility and psychometrics of a multi source (360-degree) evaluation to monitor IMGs on defined or limited licenses.

Methods: IMGs were recruited to be assessed by 25 patients (13 items), 8 medical colleagues (22 items), 8 non MD co-workers (12 items), and self (21 items) using 5-point scales in two provinces. Two response systems were tested, paper and internet/phone.

Results: 37 physicians participated. Response rates were higher with paper than internet/phone for patients (88% vs. 58%), co-workers (98% vs. 80%), and colleagues (91% vs. 67%). Mean ratings on all survey items were between 4 and 5. Cronbach's alpha was > .91. The generalizability coefficient was .59 for co-workers, .67 for colleague and .71 for patient.

Discussion: A preliminary set of instruments has been developed to monitor physicians new to Canada. Traditional survey methods (paper vs. phone/internet) yield higher response rates. Additional items are needed to increase the reliability of the co-worker instrument.

<b>R&amp;D-22</b>	<b>Family physicians' perceptions of academic detailing</b> <i>Michael Allen, Isobel Fleming, Suzanne Ferrier, Dalhousie University</i>
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Introduction: Dalhousie CME has had an Academic Detailing Service since 2001. Records show that 414 (46%) family physicians have never used the Service, 110 (12%) have used it once, and 375 (42%) have used it more than once. Our purpose is to determine the factors that encourage and discourage physicians from using academic detailing and how we can make it better meet their CME needs.

Methods: Questionnaire mailed to each of the three groups (never used, used once, used > once) and telephone interviews with 10 physicians from each group.

Results: Preliminary questionnaire data indicate the factors most likely to encourage participation are adopting an evidence-based approach; covering topics useful to practice; and providing useful handout material. Factors most likely to discourage participation are spending office time doing CME, scheduling time for the academic detailer, and having access to CME in other ways. We are about to conduct interviews and will present complete questionnaire and interview data at the conference.

<b>R&amp;D-23</b>	<b>The Prototypical Week: a novel approach to piloting major educational innovation</b> <i>Angela Towle, William Godolphin, Oscar Casiro, David Snadden, University of British Columbia</i>
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In preparation for expansion of UBC's medical school, a Prototypical Week (PTW) was designed to simulate the distributed program. The goals were to develop, pilot and evaluate curriculum delivery methods and infrastructure; test reliability and contingency plans; collect data for accreditation and future

planning; provide a demonstration model. Eight volunteer students went to each of the two distant sites and took all scheduled classes in the week (tutorials, lectures, office visits). Key features of the PTW are: face validity; detailed project planning; identified budget; careful selection of students and week; contingency plans; pre-testing of high risk new delivery methods; comprehensive evaluation. Outcomes of the PTW will be described. A PTW is a powerful tool for educational program change. It tests innovation, and builds community, confidence and buy-in.

<b>R&amp;D-24</b>	<b>Seeing oneself as others do: The power and perils of performance assessment</b> <i>Joan Sargeant, Dalhousie University; Cees van der Vleuten, University of Maastricht; Karen Mann, Dalhousie University; Job Metsemakers, University of Maastricht</i>
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Organizational psychology contributes much to what is known about performance assessment, the process of providing assessment feedback, and individuals' responses to these processes. The rationale for this study is that increasing understanding of how learners and practitioners respond to formative performance assessment enables educators at all levels of medical education and professional bodies to better use this powerful tool for learning and practice enhancement. This paper reviews the literature of the past 25 years including the more recent medical education research. Results of the review show that reactions to performance appraisal vary for diverse reasons, they influence how feedback is used, improvement does not always result, negative feedback can be de-motivating, self-assessments can have little correlation with those from other sources, and individuals may not see the need for change when unfavorable feedback is inconsistent with self-perceptions. Implications of these findings for medical education and practice will be discussed.

<b>R&amp;D-25</b>	<b>Factors affecting physicians' choice for rural practice</b> <i>Ernest Skakun, Ramona Kearney, D. Lorne Tyrrell, Kathleen Tyrrell, Stephanie Lee, University of Alberta</i>
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The purpose of the study was to determine the association between rural/urban upbringing and choice of medical practice location for medical students graduating from the Faculty of Medicine, University of Alberta 1981-1985. Factors influencing choice of location were also investigated. A questionnaire was sent to 433 physicians. Of the 433 physicians, 218 completed the survey. The results indicated that proportionately more physicians from hometown populations of greater than 50 000 are practicing in communities with a population greater than 50 000 while those physicians coming from communities of less than 50 000 are split almost 50/50 as to where they practice. Professional isolation, career of spouse, and childrens' education were the main factors for discouraging rural practice locations while medical school exposure to rural practice and extra skills training were factors that attracted physicians to rural practice.

The study is continuing with a survey of graduating classes 1986 - 1994.

<b>R&amp;D-26</b>	<b>Undergraduate Students' Approaches to Learning in the Bachelor of Health Sciences Program: An Exploratory Factor Analysis</b> <i>Kent Hecker, Tyrone Donnon, University of Calgary</i>
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Purpose. In this preliminary analysis of a longitudinal study, an investigation between students' approaches to learning (SAL), demographic characteristics and academic performance is explored in a direct entry undergraduate health sciences program.

Method. An exploratory factor analysis was used to analyze 125 BHSc students' responses to the Study Process Questionnaire (SPQ) of the 2003-04/2004-05 classes.

Results. The internal reliability coefficient of SPQ was  $\alpha=0.82$ . A 6 variable exploratory factor analysis, analogous to Bigg's deep, surface, and achieving motives and strategies, accounted for 45.0% of the variance. There were no significant differences between SAL and demographic characteristics or academic performance measures.

Conclusions. This preliminary analysis provides a benchmark of SAL in a health sciences undergraduate degree in a Faculty of Medicine. Although the major purpose of the BHSc program is to develop scholars in the health sciences, an understanding of their approaches to learning will be beneficial for identifying optimal learning experiences.

<b>R&amp;D-27</b>	<b>A processing time study to test the psychological validity of script concordance tests</b> <i>Bernard Charlin, Louise Roy, Monique St-Martin, Robert Gagnon, Évelyne Sauvé, Université de Montréal; Cees van der Vleuten, University of Maastricht</i>
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Context: Scripts, according to theory, contain expectations about clinical features associated to illnesses, and about the range of values for the features that are acceptable or not acceptable for each illness. The study investigated differences in information processing as a function of its typicality and acceptability.

Method: Thirty students and thirty geriatricians passed a test. Information was categorized depending of each hypothesis as typical, atypical or non-acceptable. The test was administrated on a computer. The dependant variable was processing time.

Results: For all participants, typical information is processed faster than atypical and non acceptable information. Not acceptable information is processed faster than atypical information

Conclusion: It is possible to predict what kind of information will be processed faster, depending of the typicality and acceptability of clinical data for given hypotheses. These results provide arguments on the validity of the theory on which is built the script concordance test.

<b>R&amp;D-28</b>	<p><b>First Year Implementation of Clinical Skills Integration in a Problem Based Learning curriculum</b>  <i>Bernard Martineau, Guy Waddell, Sylvie Bourque, René Hivon, Université de Sherbrooke</i></p>
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Introduction : Following a literature review and a program evaluation of our curriculum, we noted that procedural knowledge was taught in parallel to declarative knowledges in a way that students were having difficulty integrating these various components during clerkship. We address this problem by integrating clinical skills teaching in our Problem-Based Learning (PBL) curriculum.

Methods :. The new program was launched in september 2003 for 150 first year medical students. The program has five components: 1) formation for 25 mentors and 18 tutors by PBL modules, 2) disciplinary history taking and physical examination taught by PBL tutors, 3) a transdisciplinary clinical reasoning and patient communication course taught by the same mentor over two years, 4) regular encounters with patients and 5) a learning evaluation by new OSCE.

Results : Similar results were obtained on the five dimensions evaluated (planning, tutor/mentor prestation, evaluation and feedback, specific activities and general appreciation). We note a high level of satisfaction 3.76 out of 4 (3.61-385) for the transdisciplinary component) and 3.64 for PBL (2.86-3.85).

Conclusion : Clinical skills integration in a PBL program is a promising strategy to meet the high standards required of medical practitioners. Our program seems to help foster: 1) procedural knowledge by demonstration, practice and immediate feedback, 2) integration between declarative (PBL) and procedural knowledge as well as encouraging the 3) elaboration of conditional knowledge.

<b>R&amp;D-29</b>	<p><b>Encouraging underrepresented medical school applicants: the role of high school cooperative placements</b>  <i>Thomas Lacroix, University of Western Ontario; Maria Sottosanti, Queen's University</i></p>
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High school placements have been shown to be effective tools to stimulate interest in medical careers. They have also been shown to mitigate the disadvantages that face rural, minority and First Nations applicants. For example, standardized science scores can be increased in program participants.

Little is known regarding the availability of this tool and the frequency of its use.

We will present data demonstrating the incidence and geographical distribution of high school placement experiences through a survey given to successful first year medical school matriculants in the Province of Ontario.

This data is critical in planning Provincial strategies that encourage successful matriculation of underrepresented populations into Canadian Medical Schools. This will also be important for designing effective experiences for individual high school students.

A Queens University medical student, who completed a high school placement, will present the topic.

<b>R&amp;D-30</b>	<p><b>Games as Teaching Tools in Surgical Residency</b>  <i>Sarkis Meterissian, Moishe Liberman, Peter McLeod, McGill University</i></p>
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Traditionally didactic lectures have been the mainstay of our formal teaching. Recently we have developed innovative approaches to make learning more stimulating and motivating. The educational value and interest of these approaches were assessed using a questionnaire with a 5-point Likert scale. The games introduced were the Millionaire Game (MG) adapted to juniors and seniors and the Senior

Faceoff (SF) for seniors. The SF pits senior residents (R4s or R5s) against each other in a mock oral format. Enjoyment, sparking interest to read, teaching quality and preference over lectures were positively rated. Both the SF and the MG were stressful. The MG sparked interest significantly more in juniors and that seniors found both games more stressful. This study indicates that innovative teaching approaches can promote interest and be educational. One cautionary note is that such games may stress residents particularly those at the end of their training.

<b>R&amp;D-31</b>	<b>Medical Students' First Clinical Encounters with Death</b> <i>Emily Kelly, Jeff Nisker, University of Western Ontario</i>
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This is a qualitative study investigating medical students' own reactions to their clinical education, specifically as it relates to patient death. Telephone interviews were conducted with third and fourth year medical students from the University of Western Ontario, asking them to relate the story of their first meaningful encounter with patient death in a clinical setting. The 12 transcribed interviews were analysed using grounded theory to draw out the themes most important to medical students. Focus groups were held with medical students to research their reactions and thoughts regarding their peer's stories. Themes elucidated by this study include confusion over the medical student's role in death, guilt, and the need to recognize the patient's humanity.

<b>R&amp;D-32</b>	<b>Assessment in context of uncertainty: how many members are needed on the panel of reference of a script concordance test?</b> <i>Robert Gagnon, Bernard Charlin, Évelyne Sauvé, Université de Montréal; Michel Coletti, University of Bobigny, France; Cees van der Vleuten, University of Maastricht</i>
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Purpose: To determine how many members are needed on the panel of reference to obtain reliable scores for students.

Methods A group of 80 residents were tested on 73 items. 38 family physicians made up the pool from which scoring keys were built. Subsets of experts of increasing sizes (5, 10, 15, 20, 25, 30) were generated with a resampling procedure.

Results Reliability: There was a large difference in precision when panel size went from 5 (0.62) to ten (0.70). Over 20 the gain became negligible (0.74 for 20 and 0.76 for 38). Correlation: Mean correlation coefficient value was 0.90 with 5 panel members, 0.95 with 10 members and 0.98 with 20 members.

Conclusion For high stake exams, using a panel of 20 experts is recommended. For other exams, any number over 10 members is associated with acceptable reliability and good correlation between the samples versus the whole set of experts.

<b>R&amp;D-33</b>	<b>Assessment of clinical reasoning: is it necessary to accept variability of answers within the panel of reference to detect clinical experience?</b> <i>Robert Gagnon, Bernard Charlin, Évelyne Sauvé, Université de Montréal; Cees van der Vleuten, University of Maastricht</i>
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Background: The Script Concordance Test (SCT) uses an aggregate scoring method that reflects the variability on answers demonstrated by members of a panel of reference.

Methods: Items in the low, moderate and high variability categories were selected among a pool of items measuring clinical reasoning. The final test, made of 103 items, was administered to three contrasted groups in family medicine: 157 clerkship students, 30 residents and 30 experienced physicians.

Results: A clear effect of variability was observed on the discriminative power of the test. Items with moderate variability show high effect size for discrimination between extreme groups, while high variability items show less effect size, and low variability items demonstrate no discrimination.

Conclusion Variability of responses in the panel of reference is a key element of the discriminative power of the SCT. As expected, and in accordance with the theory, moderate variability ensures maximal discrimination between levels of expertise.

<b>R&amp;D-34</b>	<b>360-degree Teacher Assessment : A Tool to make it happen</b> <i>Ajantha Jayabarathan, Deborah Kiceniuk, Dalhousie University</i>
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For clinical teachers, receiving feedback and evaluation is critical to improving teaching skills. Medical education literature shows that valid and reliable tools exist for evaluation but are rarely used.

We incorporated such a tool into a 360-degree conceptual framework. This enhanced tool can be longitudinally administered to a variety of individuals that are central to the day-to-day roles and responsibilities of the teacher. It is designed with domains, such as organization and Clinical competence

that have been previously validated. The overall process ensures both anonymity and confidentiality.

The results provide quantitative and qualitative measures of performance that can be compared with the peer group. As few as ten such assessments are required to provide statistical significance to the data collected in terms of validity and reliability. This 360-degree teacher assessment tool draws on our ability to learn from one another and has relevance for the teacher, learner, team and patients.

<b>R&amp;D-35</b>	<b>Giving and Receiving Peer Feedback</b> <i>Niamh Kelly, George Pachev, Peer Feedback Committee, University of British Columbia</i>
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The presentation describes the introduction of a system for peer-feedback in the second-year of the undergraduate program for medical students at the University of British Columbia (UBC). At multiple times throughout the year students were required to fill out a peer-feedback form for each of the seven students in their PBL group. They could elect to do this anonymously or by self identifying. The form was adapted from the Professionalism section of the Clinical Clerkship summative-evaluation form, which meant that they were offering feedback to each other on criteria upon which they would be evaluated the following year. Two aspects of the process were evaluated: (i) will peers let each other know when they have concerns about each others professional skills; and (ii) will peer feedback provide students with information which they can use to help them improve their professional skills. We will present data to show that the answer to both of these questions is yes.

<b>R&amp;D-36</b>	<b>The Effect of a Teaching Workshop on Clinicians' Teaching Beliefs and Behaviors</b> <i>Leslie Sadownik, University of British Columbia</i>
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Purpose: First, to assess the efficacy of an educational intervention upon clinical teachers' beliefs and behaviors. Second, to compare results from a pre and post self-assessment tool with a retrospective self-assessment tool.

Background: The ABC Educational Primer is a 9 hour interactive workshop that explores beliefs about the teacher-learner relationship, and addresses behaviors such as questioning, feedback and assessment.

Method: The workshop is available to UBC Faculty in the Faculty of Medicine and Dentistry and Schools of Audiology and Rehabilitation Medicine. Participants are surveyed before the workshop and 6 weeks afterwards. The post-workshop survey asks participants to assess their teaching after the workshop and retrospectively for before the workshop. These beliefs and behaviors pre, post and retrospective are compared.

Results: Preliminary results from 35 participants show significant changes in beliefs and behaviors post-workshop. Comparison of the pre-workshop self-assessment tool and the retrospective tool demonstrates that clinicians overestimate their teaching skills prior to participating in the workshop.

<b>R&amp;D-37</b>	<b>Strategic Directives for UBC's Online Curriculum Repository</b> <i>Jennifer Smyth, Kathy Hornby, Niamh Kelly, Brian Powell, Christopher Stephenson, Elliot Wang, Erin Creak, University of British Columbia</i>
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This presentation will detail the results and recommendations from three strategic planning workshops focused on the Medicine and Dentistry Integrated Curriculum On-Line (MEDICOL) websites. Based on a WebCT platform, MEDICOL is the central repository for curricular resources in the Undergraduate Medical Education Program at the University of British Columbia. In anticipation of the new distributed medical program, two workshops were organized using a consensus-based facilitation process to review the technical and pedagogical components of MEDICOL. Forty participants attended the workshops with representation from course directors, faculty, program assistants, IT/AV personnel and librarians. A third workshop was conducted with first-year students. Workshop results were summarized into fourteen recommendations covering such issues as, enhancing user management of curricular materials, supporting innovative teaching and learning, intellectual property, and promoting a sense of community across the distributed campuses.

<b>R&amp;D-38</b>	<b>Faculty and student perceptions of active and collaborative learning in rehabilitation sciences: Is there a match?</b> <i>Aiki Thomas, Denis Berthiaume, McGill University</i>
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Cancelled / Annulée

Future rehabilitation practitioners are expected to be active learners and collaborative workers. Therefore, active and collaborative learning (A&CL) skills are fostered in undergraduate programs in rehabilitation science. Research shows that students' conceptions of learning affect

how they select and implement learning strategies, while instructors' conceptions of teaching affect how they select and implement specific teaching methods. With regards to A&CL, the relationship between instructors' and students' conceptions of teaching/learning, as well as between instructors' and students' selection and implementation of teaching/learning strategies were examined. Questionnaires and interviews were used to gather information from students whereas group interviews were used with instructors. Preliminary results point to compatible conceptions of teaching/learning entertained by instructors and students with regards to A&CL. However, compatibility problems were found in the selection and implementation of teaching/learning strategies by both groups. This emphasizes a need for better integrating learning and teaching development activities in the future.

<b>R&amp;D-39</b>	<b>The validity of Global Student Ratings of Faculty Lecturers</b> <i>James R. Brawer, Colin Chalk, Radan Capek, McGill University</i>
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Student assessment of teachers often involves no more than the selection of a single global score on a Likert scale of general teaching effectiveness. In view of the import of student ratings in tenure and promotion decisions, we explored the validity of single-score student appraisals of lecturers in the basic medical sciences at McGill. Half of the first year medical class (selected randomly) assigned global evaluations to 11 lecturers in the nervous system unit. The other half graded the instructors according to 7 validated indices of teaching efficacy. Although the means of the two evaluations were similar for highly rated instructors, those with low global ratings were evaluated more favorably in the 7-indices assessments. This discrepancy between the 2 scores exhibited a robust negative correlation with the mean global ratings. We conclude that single global scores are misleading, and that low-scoring faculty may be more effective educators than their global ratings indicate.

<b>R&amp;D-40</b>	<b>The design of common, valid and reliable OSCE stations at multiple universities: Can it be done?</b> <i>Cheryl Kristjanson, University of Manitoba; Linda Olson, University of North Dakota; Janet Lindemann, University of South Dakota</i>
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Both Canada and the United States now require clinical skills evaluation for medical licensure. Historically, medical schools have independently assessed their students' clinical skills through the administration of OSCE-style examinations.

To assess the validity and reliability of our exams, 3 universities from 2 countries collaborated to create common OSCE stations. The issues addressed included: comparing methodologies, agreeing on procedures and checklists, assessing station validity and reliability, addressing research ethics related to student consent, ensuring exam security and identifying faculty development needs.

This presentation will outline the collaborative process used to format common cases, articulate objectives, develop checklists used by standardized patients and faculty examiners, write standardized patient scenarios, establish pass/fail standards, and assess cost efficiency.

We will present preliminary student performance results and outline recommendations for other universities interested in developing collaborative OSCE stations.