UNDERGRADUATE RURAL MEDICAL EDUCATION

RPAP COORDINATING COMMITTEE WORKING GROUP ON UNDERGRADUATE RURAL MEDICAL EDUCATION

RPAP
Alberta Rural Physician Action Plan

Final – 16 September 2003

Approved by the RPAP Coordinating Committee - 11 December 2003

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INTRODUCTION AND BACKGROUND

In March 2000, the RPAP Coordinating Committee (RPAP CC) accepted two landmark reports. The first introduced important changes to the RPAP Enrichment Program for practicing rural physicians and to the Additional Skills Training Program for Residents, while the second outlined the guiding principles, structure and implementation plan for the RPAP's new rural-based Family Medicine training program, the Alberta Rural Family Medicine Network (ARFMN). The ARFMN accepted its first trainees in July 2001 and graduated its first family physicians in June 2003.

At a December 2002 planning session, the RPAP Coordinating Committee discussed further changes it saw as desired over the next few years. These changes include a need to shift rural medical education towards a training emphasis involving more clinical skills such as obstetrics, and the need to significantly improve the training and the recruitment of Alberta trainees truly committed to and prepared for rural practice.

> *Rural practice can be defined as "practice in non-urban areas, where most medical care is provided by a small number of general practitioners/family doctors with limited or distant access to specialist resources and high technology health care facilities." [Rourke J. In search of a definition of rural. Can J Rural Med 1997; 2 (3): 113-115]. Another functional definition is "medical practice outside of urban areas where the location of practice obliges some general/family practitioners to have or acquire procedure or other skills not usually required in urban practice." [Faculty of Rural Medicine, Royal Australian College of General Practitioners] Appropriate education must be provided for physicians to practice under these circumstances.*
>
> *CFPC Working Group Report on Postgraduate Education for Rural Family Practice, 1999*

Discussions with various stakeholders had identified alternatives to current rural medical education initiatives, such as the RPAP-funded rural rotations, that might achieve the RPAP CC's desired changes. These alternatives include problem/case-based learning in the first one to two years of medical school facilitated in communities outside the large urban homes of medical schools, and rural-based undergraduate medical school programs, which have demonstrated the success of rural-based medical school training using small rural colleges.

To that end, the RPAP CC launched a time-limited working group on undergraduate rural medical education to recommend changes to the current RPAP Rural Rotations Program. The Undergraduate Rural Medical Education Working Group's terms of reference are attached as Appendix A to this report.

The RPAP CC acknowledges that two Faculties of Medicine at the Universities of Alberta and Calgary in partnership with the RPAP have accomplished a great deal regarding rural initiatives. However, the continuing Provincial and National concern with the declining interest by medical students in Family Medicine provides an opportunity to strengthen (rural) undergraduate medical education in support of (rural) family practice in Alberta.

The RPAP has the ***Vision*** of "having the right number of physicians in the right places, offering the right services in Rural Alberta". The RPAP CC sees a concerted menu of initiatives to recruit rural and urban students to medical school, a strengthened family medicine exposure in the undergraduate curriculum, and a focused cultivation of medical students interested in rural practice as crucial to accomplishing this Vision.

In May 2003, the RPAP CC Working Group on Undergraduate Rural Medical Education (URME WG) began work on reviewing the literature, exploring current practice, and formulating its recommendations. The Working Group filed its report on 16 September 2003.

The RPAP CC approved the recommendations developed by the RPAP CC Working Group on 11 December 2003.

This report outlines the major relevant issues pertaining to the recruitment of rural and urban students to medical school and improvements to the undergraduate medical education experience in support of rural family practice. In accordance with the URME WG's terms of reference, specific recommendations are made to the RPAP CC.

TOWARDS A MENU OF INITIATIVES TO RECRUIT RURAL AND URBAN STUDENTS TO MEDICAL SCHOOL, A STRENGTHENED FAMILY MEDICINE EXPOSURE IN THE UNDERGRADUATE CURRICULUM, AND A FOCUSED CULTIVATION OF MEDICAL STUDENTS INTERESTED IN RURAL PRACTICE

WHY A RURAL EXPERIENCE IN MEDICAL SCHOOL?

The 1999 College of Family Physicians of Canada (CFPC) Working Group report on Postgraduate Education for Rural Family Practice (CFPC WG Report) explains that medical education is a continuum with undergraduate education providing a foundation for postgraduate programs. It goes on to recommend (Recommendation #1 at page 21) that: all undergraduate programs should include core rural Family Medicine rotations, and that opportunities for interested medical students to pursue ongoing and extensive undergraduate education in rural, remote, and secondary medical settings for core specialty medicine or elective rotations need to be developed.

Quoting from the CFPC WG Report (Recommendation 1 at page 21): "Educational experiences in the rural milieu are important in order to encourage an understanding of the nature of rural practice in all medical graduates regardless of ultimate specialty and provide a foundation for those who will pursue rural postgraduate training. Rural undergraduate medical experiences are essential in providing medical students with the opportunity to see rural practice as a viable career choice. Curricula must give rural settings the status allotted to the traditional divisions of medicine. Early and ongoing rural experiences in medical schools have been shown to increase the likelihood of rural practice upon graduation. All undergraduate programs should include core rural family medicine rotations. In addition, opportunities for interested medical students to pursue ongoing and extensive undergraduate training in rural, remote, and secondary medical settings for core specialty medicine or elective rotations need to be developed." [1]

The recommendations regarding "early and ongoing rural experiences" in the undergraduate (and postgraduate curricula) are also supported by the 1995 World Organization of Family Doctors (WONCA) Policy on Training for Rural Practice:

> *"After a rural background the next strongest factor associated with entering rural practice is undergraduate and postgraduate clinical experience in a rural setting."*
>
> *WONCA Policy on Training for Rural Practice, 1995*

The WONCA Policy (Recommendation 5) underlines the importance of rural experiences: "As rural practitioners provide a wider range of services than their metropolitan counterparts, rural practice attachments provide students with the opportunity to develop a breadth of clinical skills. These include diagnostic and therapeutic procedural skills as well as skills of clinical judgment and self-reliance in the practice setting. This rural experience also helps students identify their own learning needs."[2]

[1] A Report of the Working Group on Postgraduate Education for Rural Family Practice, 1999

[2] WONCA Policy on Training for Rural Practice, 1995

Dr. David Wilkinson, Professor of Health Sciences, Pro Vice-Chancellor and Vice-President, Division of Health Sciences, University of South Australia, Australia, reports on recent research showing "Doctors with a rural background, a rural partner, and with rural exposure during training were more likely to be working in the country." "In brief, we confirm that rural background and rural under- and postgraduate medical education increase the probability that doctors will work in rural practice, and the odds ratios of the associations are in the order of 2 to 3.5."[3]

Fortunately, the 11-year old RPAP-funded undergraduate (and postgraduate) Rural Rotation Programs at the two Faculties of Medicine go some distance to address the undergraduate medical curriculum recommendations contained in both the CFPC WG Report and the WONCA Policy on Training for Rural Practice.

THE CURRENT FAMILY MEDICINE UNDERGRADUATE MEDICAL EXPEREINCE

At **The University of Calgary**, the Clerkship (final) year of the undergraduate medicine curriculum provides a four-week rotation in Family Medicine, which must be spent in a rural community, unless there are extenuating circumstances. This rural clerkship has been one of the most successful and popular rotations of the undergraduate curriculum and the rotation has consistently received excellent reviews from the clerks on the quality of the experience at these sites.

At the **University of Alberta**, third year undergraduate medical students must do a four-week Family Medicine rotation in rural Alberta. There are some two-dozen rural communities available. The student is able to work on a one-to-one basis with the family physicians in their practice, get direct experience in the hospital and interact with other community resources. In addition to the mandatory rotation, undergraduate medical students may also do elective time in rural or urban Family Medicine.

At the current time, these RPAP-funded rural rotations are the only mandatory clinical rotations medical students receive to family practice and rural family practice during their undergraduate medical education. Evaluative feedback from the undergraduate medical students at both Universities in this province clearly ranks the rural Family Medicine rotation at the top in terms of popularity and learning value for the students. The common complaint is that the rotation is not long enough and there is interest in extending this rural rotation, thereby exposing the students to many of the aspects of rural medicine beyond Family Medicine.

Beginning in 2002, RPAP launched several new initiatives consistent with the recommendations of the WONCA Policy on Training for Rural Practice to encourage first and second year medical students to consider rural medical practice. These include:

- **Medical Student Tours** designed to give medical students an opportunity to listen to rural physicians discuss the day-to-day realities of rural medicine and to get a first hand account of the life of a rural physician. The tours include guest speakers, hospital and EMS tours, and other demonstrations;

[3] Wilkinson D. Evidence-based rural workforce policy: an enduring challenge. *Rural and Remote Health* 3 (online), 2003: 224.

- The **Shadowing** Program, which grew out of the medical student tours. Feedback received from medical students indicated that they felt that they did not get enough exposure to rural medicine in their early medical school education. This program enables interested medical students to follow rural physicians for a weekend on call and to see what rural medicine has to offer;

- The pilot **Mentoring Program** in which selected second year medical students with rural Faculty Advisors/Mentors from the University of Calgary who provide a positive role model and encourage students to pursue a rural medical career;

- **Medical Skills Training, which** enables interested students to attend "skills days" where they learn casting, suturing, injections etc. Students often feel they have to wait a long time through medical school before they actually learn the practical skills related to medicine; and

- The **Student Summer Elective Support** Program which provides matching grants of $2,500 to regional health authorities (RHAs) to encourage the hiring of a first or second year medical student for summer clinical and research experience, and in so doing, to further expose these early careerists to rural medical practice.

IMPROVEMENTS TO THE UNDERGRADUATE MEDICAL EDUCATION EXPERIENCE

Early and Frequent Family Medicine Exposure

The importance of early and frequent Family Medicine exposure has been noted above. As the WONCA Policy on Training for Rural Practice advances, "early positive exposure to rural practice will encourage more students to develop an interest in rural practice as a career option and foster a better understanding of rural practice for others. All students should be introduced to rural health issues early in the medical course and have clinical rotations to rural hospitals and rural family practice later in the course."[4]

The RPAP has chosen a policy direction aimed at increasing the overall pool of candidates to medical school interested in family medicine, and then targeting those interested in rural medicine, rather than continuing to concentrate on developing initiatives targeted at the shrinking pool of family physicians and the subset interested in rural medicine.

The URME WG supports this general direction and more specifically, the new RPAP initiatives designed to encourage early Family Medicine exposure for medical students, and encourages the Faculties to offer additional mandatory Family Medicine rotations beyond the RPAP-funded mandatory and elective rural rotations.

The RPAP has also started to formally support the two Rural Medicine Clubs through direct financial contributions, programming offered through the Rural Medical Students' Initiatives Coordinator and administrative assistance through the Rural Physician Consultants. As the WONCA Policy on Training for Rural Practice states, "Rural Practice Clubs" encourage city

[4] WONCA Policy on Training for Rural Practice, 1995

origin students to develop an interest in rural practice and support rural background students in adjusting to the challenges of city living and university studies."

The URME WG supports this initiative and encourages the two Rural Medicine Clubs, the RPAP and the Faculties of Medicine to collaborate on joint programming, and networking with similar rural interest clubs at other universities.

The RPAP began this networking by sponsoring seven medical students from the two Rural Medicine Clubs to attend the June 2003 SRPC Rural and Remote Conference in Kelowna, BC.

Decentralized Training and Curriculum Design

Dr. Jack Colwill of the Department of Family and Community Medicine at the University of Missouri-Columbia, nicely outlines both the problems and the opportunities associated with recruiting more students into family medicine and rural family medicine -

> *Educating physicians for primary care has not been a high priority in most medical schools. Nevertheless, many schools have developed successful programs to increase the number of' graduates entering primary care.*
>
> *Jefferson Medical College combines a separate selection process with special educational programs for students from rural areas who have an interest in family medicine. The Washington, Alaska, Montana, Idaho (WAMI) Program at the University of Washington offers selective admission to applicants from those states and community-based educational experiences. The University of Minnesota increases the number of graduates entering rural family practice through its Rural Physician Association Program, which places students in rural practice settings for nine months, and through the Duluth Program, which selectively admits students interested in rural practice. The experiences of the Upper Peninsula Program of Michigan State University and programs at Southern Illinois University, East Carolina Medical School, the University of North Dakota, the State University of New York at Syracuse—Binghamton, and other medical schools demonstrate that it is possible to have a high percentage of graduates enter primary care. The selective admission of students interested in careers in primary care, changes in curriculum that emphasize primary care, and the placement of students in community-based settings are common features of these programs.*
>
> *What barriers prevent other institutions from emulating such programs? The academic medical center itself is a major obstacle. The typical medical school, with its tertiary-care teaching hospital, provides a different culture from that of the community, with its orientation toward primary and secondary care. Academic medical centers emphasize the application of science and technology to the treatment of disease in individual patients. Their faculty members value in-depth knowledge, inquiry, and a detailed approach to care. Their organizational structures and sources of funding emphasize research and the delivery of tertiary care. In this environment, generalism tends to be defined in terms of the absence of' specialization rather than in terms of its positive features of' breadth, comprehensiveness, and integration. Most medical education occurs in this tertiary-care milieu, producing a major socializing force toward specialization.*

> *The selection of medical students emphasizes academic achievement — especially in science — and places relatively less emphasis on the students' commitment to service, specialty preferences, orientation toward people, and views on income, lifestyle, and prestige. The curriculum focuses on the biologic sciences and hospital-based specialty and subspecialty rotations rather than on epidemiology, behavioural sciences, and primary care rotations. Schools are more likely to have developed M.D.-PhD programs than special programs to prepare primary care physicians. Subspecialty faculty members have the most contact with students and transmit their enthusiasm for their specialties to them. The selection process, curriculum, and educational setting are all admirably designed to prepare subspecialists. Medical faculties have thus tended to replicate themselves.*[5]

The URME WG supports the implementation of strategies to increase the exposure to family practice and rural practice in the undergraduate medical curriculum. Strategies may include:

1. An introduction to rural health issues early in the curriculum including specific rural practice attachments for students early in the medical course.

2. Ensuring that significant periods of undergraduate learning and teaching are multi-professional and take place within the rural health team.

3. Encouraging interdisciplinary links in the training of medical students. The participation other health professionals both in the teaching of undergraduates (and Residents) and in joint learning opportunities will improve the relationship between doctors and other health professionals and facilitate a greater diversity of approaches.

4. A rural medicine stream for a selected group of students who indicate an early commitment to rural practice. This might take the form of: one to three years of complete medical curriculum undertaken in the rural setting, a thread of rural attachments intertwined through the clinical components of the curriculum, and a decentralised rural-based undergraduate medical school program that allow students to take most or all of their medical school education in centres outside of Edmonton and Calgary.

   The 2001 WONCA Policy on Rural Practice and Rural Health states that decentralised programs that allow medical students to take a major part or all of their studies at centres located outside major metropolitan areas are more likely to attract students from rural areas and be successful in producing doctors to practice in rural areas.

   As an example to explore, to model and to adapt to the Alberta experience, the URME WG recommends the new curriculum and delivery method being implemented by the new Northern Ontario Medical School. A summary of the MD program is attached as Appendix B. Other options include the examples cited by Dr. Colwill in his NEJM article cited above.

[5] Colwill Jack M. Where Have All The Primary Care Applicants Gone? *NEJM* 326 (6): 391, 1992

The WONCA Rural Practice Training Policy recommends establishing decentralised medical schools that allow medical students to take a major part or all of their studies at centres located outside major metropolitan areas, and in so doing, are more likely to attract students from rural areas and be successful in producing doctors to practice in rural areas.

The current RPAP-sponsored Alberta Rural Family Medicine Network and the existing RPAP-funded Rural Rotations Program offer an existing platform of teaching sites, preceptors, faculty development and proximity to small rural colleges to pilot options for a more decentralized undergraduate medical education experience.

There are educational advantages in teaming undergraduate medical students with residents at the same location - this leads to some interesting three-way teaching between preceptor, student and resident. This dual level of attachment should be encouraged where possible, and was a guiding principle of the ARFMN.

The URME WG feels that curriculum reform – for an enhanced Family Medicine exposure and for an enhanced rural delivery option - is an area for the two Faculties and the RPAP to pursue within the guidelines of the CFPC WG Report, the 2002 CFPC Working Group on Undergraduate Education, the WONCA Rural Practice Training Policy, and the recommendations of this report. This development work should begin with the appointment of a time-limited UofA/UofC Faculty-RPAP rural curriculum development working group. Such a working group will need to involve the rural and GFT Family Medicine faculty, in an iterative process before its recommendations and work plan are formally submitted by 31 March 2004 to the applicable Faculty bodies and the RPAP for consideration.

In summary, quoting from Dr. Wilkinson[6]:

All in all, it is now clear in Australia that rural background and rural exposure during medical training do increase the likelihood of doctors working in the country. This is but one component of effective policy, though. We need efforts at all points in the entire continuum, ranging from the number of students with a rural background entering medical school, to high quality and sustained undergraduate rural experiences, through to rural intern and postgraduate training opportunities. The contextual issues are critical too, of course. Remuneration must be appropriate, doctors must be able to access locum relief and continuing professional development support, and the critical roles of rural doctors' families and their needs must not be ignored.

RECRUITING RURAL AND URBAN STUDENTS

Recruiting More Students and More Students With Rural Backgrounds

Recruitment to rural practice, the WONCA Rural Practice Training Policy states, will increase when high school students, medical students and new medical graduates see rural

[6] Wilkinson D. Evidence-based rural workforce policy: an enduring challenge. *Rural and Remote Health* 3 (online), 2003: 224.

practice as a positive career option. This can be achieved by carefully encouraging and selecting school students, sensitising medical students to rural practice early on and providing appropriate clinical teaching in the latter part of the undergraduate course and in the immediate postgraduate period.

Experience around the world shows that students from a rural origin are much more likely to enter rural practice after graduation. In most current medical courses, the proportion of students from a rural origin is significantly less than the proportion of the population, which lives in the country. Clearly one important strategy for increasing the numbers of rural doctors involves recruitment of more medical students from a rural background.

In order for this to occur, secondary students in rural areas need to be encouraged to consider medicine as a career option and to apply for entry to medical school. Consequently there is a need for specific programs, which promote medicine to rural secondary schools. In many rural areas the academic standards of the secondary schools may not be sufficiently high for their graduates to qualify for medical school entry. Thus, programs need to be developed which identify potential medical students and assist them with secondary education in preparation for medical school entry.

The Working Group noted the experience of several universities who sponsor health science clubs at the pre-med level as an additional strategy to increase interest in the health disciplines at the entry undergraduate level and before application to medical school, the nursing and rehabilitation medicine faculties. In addition, the Working Group was aware of examples of community development in which a community would financially and otherwise sponsor/support a local student into university and later on throughout medical school. Anecdotally, these sponsored students were more likely to return to their community due to the ongoing affinity they had to the community.

To ensure an appropriate proportion of rural origin students are recruited into medical schools, there need to be specific mechanisms included in the selection process. Criteria for selection based on marks plus other criteria are evolving**.** Selection processes, which include interview of applicants and give recognition and credit for rural background are to be encouraged. Specific targets for admission of students from a rural background may be needed.

Dr. Jim Rourke, Assistant Dean Rural and Regional Medicine at the University of Western Ontario and former Director of the Southwestern Ontario Rural Regional Medicine Education, Research and Development Unit (SWORRM), speaking at the RPAP/ARFMN 2002 Cabin Fever Rural Faculty Development conference hosted by the University of Calgary, commented on research published in JAMA by Dr. Roger A. Rosenblatt of the University of Washington School of Medicine, which indicated that the location, organization and mission of the medical school is closely related to the proportion of graduates who enter rural practice. [7]

The URME WG supports the implementation of strategies to increase the number of medical students recruited from rural areas. Strategies may include:

- Introduction of programs promoting medicine as a career to rural secondary students.

[7] Rosenblatt Roger A. Which medical schools produce rural physicians? *JAMA* 268 (12), 1992: 1559-1565.

- Establishment of scholarships and educational support programs, which identify potential medical students in rural areas and assist them with secondary and university education in preparation for medical school entry.

- Selection processes that encourage admission of students from rural areas. Selection processes including interviews should give specific recognition and credit for rural background, experience, and interest. When selecting and recruiting staff and potential students and trainees, universities should take cognisance not only of academic prowess but also matters of commitment, vision and a willingness to take risks and if necessary, make sacrifices; and specific targets for students from a rural background may be needed.

The RPAP has approved a High School/Early Careerist Business Plan, in part, to recruit more students and more students with rural backgrounds. The RPAP will begin a partnership with the UofA Faculty of Medicine to collaborate with its Ambassador program.

The URME WG recommends the appointment of time-limited UofA and UofC Faculty-RPAP rural undergraduate development working groups. Such working groups will be charged to outline specific implementation work plans, responsibility and time lines for the above noted strategies to increase the number of medical students recruited from rural areas. The working groups will work in an iterative process before its recommendations and work plan are formally submitted by 31 March 2004 to the applicable Faculty bodies and the RPAP for consideration.

RESEARCH AND EVALUATION

This promising and exciting new educational paradigm opens many avenues to explore innovative ways of delivering medical education and practice.

The URME WG supports research and evaluation initiatives in the areas outlined in this report, including the UofC-UofA-UBC "career aspirations" study of medical students. It also supports the inclusion of resources for internal evaluation and feedback by the Faculties and the RPAP in support of the recommendations outlined in this report. This should be done on a site and student/preceptor basis, with close linking to measurement of performance and achievement of learning objectives. Relatively immediate feedback is clearly more effective at fine tuning and enhancing the delivery of effective education. Ongoing key performance indicators (KPI) as set out in the RPAP Business Plan should also be utilized.

RECOMMENDATIONS

This report has seven recommendations regarding a menu of initiatives to recruit rural and urban students to medical school, a strengthened family medicine exposure in the undergraduate curriculum, and a focused cultivation of medical students interested in rural practice. The Undergraduate Rural Medical Education Working Group's recommendations are as follows:

Early and Frequent Family Medicine Exposure

1. The URME WG supports the RPAP policy direction aimed at increasing the overall pool of candidates to medical school interested in family medicine, and then targeting those interested in rural medicine, rather than continuing to concentrate on developing initiatives targeted at the shrinking pool of family physicians and the subset interested in rural medicine. The Working Group also supports the new RPAP initiatives designed to encourage early Family Medicine exposure for medical students, and encourages the Faculties to offer additional mandatory Family Medicine rotations beyond the RPAP-funded mandatory and elective rural rotations.

2. The URME WG supports the RPAP initiatives supporting the Rural Medicine Clubs and encourages the two Clubs, the RPAP and the Faculties of Medicine to collaborate on joint programming, and networking with similar rural interest clubs at other universities.

3. The URME WG supports the implementation of strategies to increase the exposure to family practice and rural practice in the undergraduate medical curriculum. Strategies may include:

    - An introduction to rural health issues early in the curriculum including specific rural practice attachments for students early in the medical course.

    - Ensuring that significant periods of undergraduate learning and teaching are multi-professional and take place within the rural health team.

    - Encouraging interdisciplinary links in the training of medical students. The participation other health professionals both in the teaching of undergraduates (and Residents) and in joint learning opportunities will improve the relationship between doctors and other health professionals and facilitate a greater diversity of approaches.

    - A rural medicine stream for a selected group of students who indicate an early commitment to rural practice.

4. The URME WG feels that curriculum reform – for an enhanced Family Medicine exposure and for an enhanced rural delivery option - is an area for the two Faculties and the RPAP to pursue within the guidelines of the CFPC WG Report, the 2002 CFPC Working Group on Undergraduate Education, the WONCA Rural Practice Training Policy, and the recommendations of this report. This development work should begin with the appointment of a time-limited UofA/UofC Faculty-RPAP rural curriculum development working group. Such a working group will need to involve the rural and

GFT Family Medicine faculty, in an iterative process before its recommendations and work plan are formally submitted by 31 March 2004 to the applicable Faculty bodies and the RPAP for consideration.

Recruiting More Students and More Students With Rural Backgrounds

5. The URME WG supports the implementation of strategies to increase the number of medical students recruited from rural areas. Strategies may include:

   - Introduction of programs promoting medicine as a career to rural secondary students.

   - Establishment of scholarships and educational support programs, which identify potential medical students in rural areas and assist them with secondary and university education in preparation for medical school entry.

   - Selection processes that encourage admission of students from rural areas. Selection processes including interviews should give specific recognition and credit for rural background, experience, and interest. When selecting and recruiting staff and potential students and trainees, universities should take cognisance not only of academic prowess but also matters of commitment, vision and a willingness to take risks and if necessary, make sacrifices; and specific targets for students from a rural background may be needed.

6. The URME WG recommends the appointment of time-limited UofA and UofC Faculty-RPAP rural undergraduate development working groups. Such working groups will be charged to outline specific implementation work plans, responsibility and time lines for the above noted strategies to increase the number of medical students recruited from rural areas. The working groups will work in an iterative process before its recommendations and work plan are formally submitted by 31 March 2004 to the applicable Faculty bodies and the RPAP for consideration.

Research and Evaluation

7. The URME WG supports research and evaluation initiatives in the areas outlined in this report, including the UofC-UofA-UBC "career aspirations" study of medical students. It also supports the inclusion of resources for internal evaluation and feedback by the Faculties and the RPAP in support of the recommendations outlined in this report. This should be done on a site and student/preceptor basis, with close linking to measurement of performance and achievement of learning objectives. Relatively immediate feedback is clearly more effective at fine tuning and enhancing the delivery of effective education. Ongoing key performance indicators (KPI) as set out in the RPAP Business Plan should also be utilized.

IDENTIFICATION OF FOLLOW-UP RESPONSIBILITIES

RECOMMENDATION	FOLLOW-UP RESPONSIBILITIES
#1	RPAP, Faculties of Medicine
#2	RPAP, Faculties of Medicine
#3	RPAP, Faculties of Medicine
#4	RPAP, Faculties of Medicine
#5	RPAP, Faculties of Medicine
#6	RPAP, Faculties of Medicine
#7	RPAP, Faculties of Medicine

APPENDIX A

WORKING GROUP ON UNDERGRADUATE RURAL MEDICAL EDUCATION

PURPOSE:

Reporting to the RPAP Coordinating Committee (RPAPCC), the Working Group on Undergraduate Rural Medical Education will study improvements to the current RPAP approach to undergraduate rural medical education and make recommendations on relevant policy directions for Alberta.

The Working Group will prepare a formal report, which will address the following topics in and associated with undergraduate rural medical education:

- An assessment of the current RPAP Rural Rotations Program relative to the selection and support of medical students interested in rural practice and their eventual recruitment to rural practice

- The relevant issues pertaining to any revision to RPAP-funded undergraduate rural medical education programs, including:

    ⇒ an examination of alternative models of undergraduate rural medical education
    ⇒ the number of medical school positions, and the source of funding for these positions, i.e. incremental funds, a reallocation of existing positions, or a combination
    ⇒ any impact on the current undergraduate and postgraduate medical education system
    ⇒ any infrastructure costs
    ⇒ other relevant issues as the working group may determine

- A work plan for the development, funding, and implementation of an RPAP undergraduate rural medical education program in Alberta.

ACCOUNTABILITY:

The Working Group on Undergraduate Rural Medical Education will report to the RPAP CC.

TIMEFRAME:

An initial report will be developed and submitted to the RPAP CC by 31 September 2003 with the final report being completed by 30 November 2003.

MEMBERSHIP:

Dr. Odell Olson, RPAP Coordinating Committee - Chair
Dr. Jill Konkin, President, Society of Rural Physicians of Canada (SRPC)
Dr. Les Cunning, Chair, RPAP Family Medicine Network Education Subcommittee
Dr. Hugh Hindle, Unit Director, Rural Alberta North
Dr. Fraser Brenneis, Undergraduate Family Medicine Director (Alternate for Dr. Rick Spooner, Chair, Department of Family Medicine), University of Alberta
Dr. Marc Moreau, Assistant Dean, Admissions, University of Alberta
Dr. Mo Verjee, Clerkship Director (Alternate for Dr. Peter Norton, Head, Department of Family Medicine), The University of Calgary
Barry Brayshaw, Alberta Health and Wellness
Other persons as may be required
David Kay, RPAP Staff

Status: Ad Hoc

APPENDIX B

MD PROGRAM – NORTHERN ONTARIO MEDICAL SCHOOL (HTTP://WWW.NORMED.CA/)

Introduction

Grounded in Northern Ontario, the undergraduate medical or MD program of the Northern Ontario Medical School (NOMS) will provide students with a unique mix of learning opportunities in a diverse range of sites including aboriginal and francophone communities. Selection into the NOMS undergraduate program will favour those who are likely to thrive in the challenging northern and rural learning environments including applicants from within Northern Ontario.

Innovative Medical Education

Students will be learning in small groups, much of the time in distributed community based learning sites supported by broadband communication information technology. The learning approach will be patient centered focusing on people in their home/family/community context, through case based learning, a development from problem based learning pioneered at McMaster Medical School over thirty years ago. Each week, the student group will explore a different case as a trigger for extending their knowledge, attitudes and skills in each of the five themes of the program.

Throughout the four-year program, the curriculum will be organized around five themes:

1. Northern and Rural Health
2. Personal and Professional Aspects of Medical Practice
3. Social and Population Health
4. The Foundations of Medicine
5. Clinical Skills in Healthcare

In addition to small group patient centered learning, students will participate in hands-on practical classes, self-directed learning and clinical education in a range of different health service and community settings. Through the mix of themes and different learning modalities, the program will cover core curricula ensuring students gain a strong grounding in the basic sciences, paraclinical sciences, social and behavioural sciences and clinical medicine.

Clinical education will start at the beginning of the program and occur in a diverse range of different settings. Community Based Medical Education will be a key component of the program with students learning not only in larger hospitals, but also in other hospitals, health services, family practices and various community settings.

This approach will ensure that students gain a diversity of clinical knowledge and skills, as well as experience for themselves the special features of Northern Ontario. These include the diversity of cultures, varying morbidity and mortality patterns with specific clinical challenges, and a wide range of health service delivery models, with particular emphasis on interdisciplinary cooperation and the whole health team.

Communication information technology will be essential to the success of the NOMS undergraduate medical program. Much of the student's learning materials will be provided through electronic communications making full use of the wealth of educational resources available by CD Rom, the Internet and the World Wide Web. Whether students are in the large regional centres of Thunder Bay and Sudbury, or in the smallest most remote community, they will have the same access to information and educational resources as if they were in the large metropolitan teaching hospital.

Progressive Learning

Year One:

During the first year of the program, students in groups of eight will spend most of their time in the large regional centres, Sudbury and Thunder Bay. After a one-week transition workshop with all students in the class together, three small groups will be based in Thunder Bay and four groups in Sudbury. Clinical contact learning will occur from the first week with attachments in the Regional Hospitals, and other local health services. During the year, all students will have at least one-month clinical attachment in a location outside the regional centres. A second one-week workshop for the entire class will take place in the second semester.

Year Two:

As in first year, much of the student learning will take place in Sudbury and Thunder Bay, although there will be two full week workshops involving the entire class and two months spent on clinical attachments outside of the regional centres. During years one and two, all four themes will be explored not only through patient centered small group learning but also hands-on practical classes, lectures and seminars by videoconference and interdisciplinary learning with students of a range of health professions.

Year Three:

This will be a full year of Community Based Medical Education. Students in groups of two eight will undertake up to twelve months of clinical attachment in a range of health service settings across the region. Based on a very successful model of Rural Community Based Medical Education provided by Flinders University Medical School in South Australia, students will learn a range of clinical disciplines through direct patient contact supported by local and visiting specialist teaching and substantial distance learning. During this prolonged clinical attachment, students become part of the health service and connected into the local community.

Year Four:

A transition to residency, this year will consist of a series of selective clinical attachments in different locations covering a range of medical specialties. At the completion of this year, students will graduate skilled and ready to pursue postgraduate training in a specialty or family medicine.

Curriculum Development

A small team of personnel skilled in medical education, curriculum development and health information resources will work with local physicians, university faculty and others with an interest to ensure that the Northern Ontario Medical School provides an undergraduate medical program, which is second to none.

As well as covering the core curricula, common to all North American medical schools, NOMS Medical Program will have a rural and northern component developed through the contribution of local physicians, university faculty, aboriginal groups, health professionals, and members of other communities.

Conclusion

Developed and delivered in Northern Ontario, by Northern Ontario, for Northern Ontario, the Northern Ontario Medical School MD Program will provide high quality medical education for students through patient centered case based learning and distributed community based medical education.

DR. ROGER STRASSER, FOUNDING DEAN
NORTHERN ONTARIO MEDICAL SCHOOL
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