A Six Year Report on the Rural Physician Action Plan (RPAP) at the University of Alberta

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Abstract:

In 1991, Alberta initiated a comprehensive, integrated and sustained approach to the education, recruitment and retention of physicians for rural practice; the Rural Physician Action Plan. The comprehensiveness of the initiatives, the participation of key stakeholders (including government, medical association, licensing authority, Faculties of Medicine, practicing rural physicians, and Regional Health Authorities) and the development of a sustained program budget are key organizational issues.

This paper describes three integrated educational programs at the University of Alberta, supported by the RPAP. The objectives of the programs are to expand and enrich rural educational experiences at the undergraduate and postgraduate levels and to supplement family medicine postgraduate education with a third year special skills program for rural practice. These rural-based educational programs have resulted in over 95% of medical students gaining this experience; the number of family medicine residents doing rural rotations has doubled, and the length of experience in rural practice increased four-fold. The third year special skills training for rural practice has greatly expanded and is highly associated with entry into rural practice. Physicians in over 30 rural Alberta communities have become a major influence on the training and education of medical students and family medicine residents at the University of Alberta.

Biographical Note:

Ms. Woodhead Lyons is a consultant in the health field and was the program manager of the Rural Physician Action Plan from 1991 to 1998. Dr. Moores is Professor and Chair of the Department of Family Medicine at the University of Alberta and has practised in the Eastern Arctic and Newfoundland and Labrador. Dr. Wilson is currently Professor with the Department of Public Health Sciences. As the former Dean of Medicine at the University of Alberta, he was instrumental in developing the proposal for the Rural Physician Action Plan.

1.0 Introduction

The Rural Physician Action Plan (RPAP) is a comprehensive program designed to enhance recruitment and retention of physicians to rural Alberta. It was initiated in April of 1991, after an extensive consultation and planning process[1,2] between government and major stakeholders.

The purpose of this paper is to briefly describe the RPAP and to discuss our experience with three integrated rural practice educational programs at the University of Alberta over the six year period of 1992/93 - 1997/98.

2.0 The Rural Physician Action Plan

Alberta's RPAP has three key features. First, it is a cooperative and collaborative endeavour among key stakeholders involved in physician resource planning. Secondly, it is an integrated and comprehensive plan with initiatives aimed at several different groups and designed to support and build upon each other. The third key feature is the major commitment of funding by Alberta Health over an extended period of time, since a student entering medical school cannot be prepared for rural practice in less than 6 or 7 years.

RPAP Key Features

- ✓ Cooperative and Collaborative
- ✓ Integrated and Comprehensive
- ✓ Sustained funding over an extended period of time

At the provincial level, the RPAP Coordinating Committee was established to oversee implementation of the plan by the key stakeholders. This provincial committee is accountable to Alberta Health (and hence, the Minister of Health) for the programs and budget of the Plan.

Studies from many different jurisdictions show that there are two major categories of issues which affect rural physician recruitment and retention; (1) professional issues, and (2) lifestyle issues[3-5]. The RPAP is primarily intended to address professional issues, but also encourages communities to enhance their capacity to address lifestyle issues.

The RPAP addresses issues of rural physician recruitment and retention by focussing on three distinct groups with various initiatives developed to support each of the three groups. These include:

> The RPAP focuses on three distinct groups:
> ✓ Physicians currently in rural practice
> ✓ Regional Health Authorities and rural communities
> ✓ Undergraduate medical students and postgraduate physicians (residents)

a) Practicing Rural Physicians:

✓ Expanded CME programs for rural physicians include regional conferences, teleconferences, online access to university libraries, and the development of the Rural Emergency Care - Alberta Program(RECAP).

✓ The Enrichment Program provides opportunities for rural physicians to upgrade existing skills or to gain new skills to meet the needs of the rural communities.

✓ The Rural Locum Program, operated by the Alberta Medical Association, provides locum coverage to physicians in small rural communities.

b) Regional Health Authorities and Rural Communities:

✓ Physician Recruitment Fairs are run annually to provide Regional Health Authorities (RHAs) and communities with the opportunity to meet and begin recruiting medical students, residents and practising urban physicians.

✓ Community Profiles provide information on the RHAs and communities with the regions that may be of value to physicians looking for a practice. The profiles are available through the internet, so that physicians around the world have access to the information.

c) Undergraduate Medical Students and Postgraduate Physicians:

✓ Rural Rotation Programs are designed to provide positive exposure to rural life and to rural medicine at both the undergraduate and postgraduate level.

✓ Special Skills Training offers Family Medicine residents

additional training to prepare for rural practice.

✓ Reimbursement for Advanced Trauma Life Support/Advanced Cardiac Life Support (ATLS/ACLS) training is provided to family medicine residents who participate in the Rural Rotation Program.

✓ The Signing Bonus Program provides a financial incentive to residents who sign a contract with a rural RHA for at least one year of service.

The funding for RPAP programs has increased from $1.8 million in 1991/92 to $3.1 million in 1996/97

3.0 Program Information for the RPAP at the University of Alberta

University of Alberta Rural Educational Programs

✓ Rural Rotation Program for Undergraduate Medical Students
✓ Rural Rotation Program for Family Medicine Residents
✓ Special Skills Training for Family Medicine Residents

As indicated above, one major set of initiatives focuses on medical students and residents. These initiatives encourage and prepare them for rural practice by i) providing medical students and residents with a positive educational experience in rural medicine, and the necessary skills to practice in rural communities, and ii) providing academic appointments, faculty development and financial support to rural physician

teachers(preceptors).

RPAP funding provides support for:
- ✓ Rural Coordinator
- ✓ Rural Rotation Administrator
- ✓ Informatics Coordinator and resources
- ✓ Accommodation and travel for medical students and residents
- ✓ Preceptor honorarium
- ✓ Faculty development
- ✓ ATLS/ACLS reimbursement for family medicine residents

Within the Faculty of Medicine at the University of Alberta, organizational systems were established to monitor progress of the rural initiatives. However, regardless of the enthusiasm and support provided by the Faculty the Rural Rotation Programs and the Special Skills Training would not have been viable without the financial support from the RPAP. Since 1991/92, the approved budget has increased from $445,700 to $954,300 in 1997/98. The funding has been essential to build an appropriate infrastructure to support the rural rotations for medical students and residents, as well as the special skills training for rural practice.

4.0 Rural Rotation Programs

4.1 Undergraduate Medical Student Rotations

Prior to 1992/93,rural experiences of medical students were dependent on the interest of students to utilize elective time and to seek out rural practice opportunities. Although the Department of Family Medicine maintained a small list of potential community

preceptors, there was no regular source of financial support or organized assistance in arranging the experience and preceptor development.

The rural rotations for medical students were formalized once the RPAP funding was initiated in 1992/93. Preceptors are predetermined and regularly evaluated on the effectiveness of their teaching. Written educational objectives have been established and students are graded on a Pass/Fail basis. For the graduating class of 1996/97, there was, for the first time, a mandatory family medicine rotation in the clerkship and over 95% of these rotations were rural. The evaluation of students now includes an objective-structured clinical examination (OSCE).

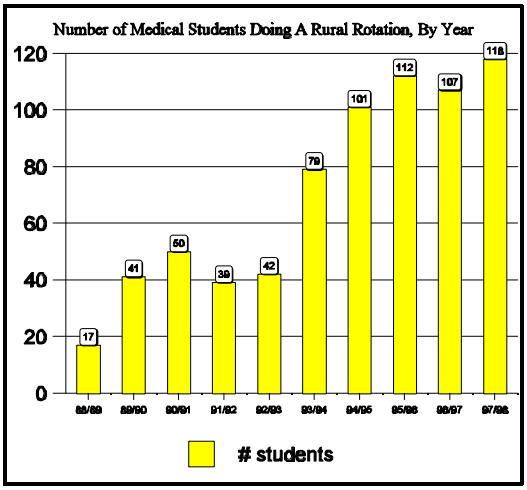


Figure 1a

The increase in undergraduate students taking rural rotations, and also the striking increase in the total number of weeks per year spent in rural Alberta, are shown in Figure 1a and 1b.

In 1992/93, 43 students spent 168 weeks in approved rural teaching sites, whereas in 1997/98, 118

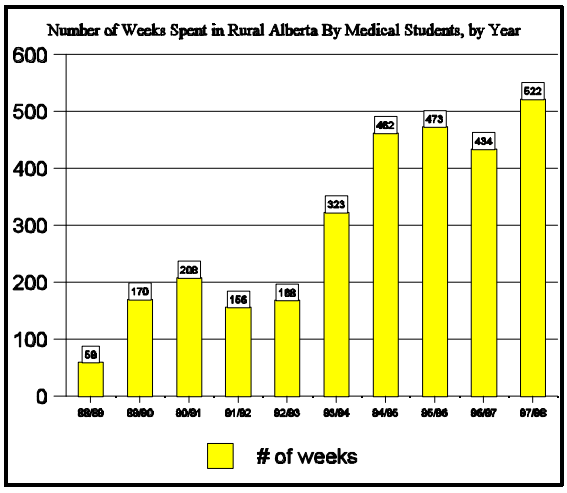


Figure 1b

medical students spent 522 weeks in rural Alberta.

The evaluations provided by medical students indicate that they rate their rural experience and community preceptors highly. Student evaluations have also been helpful in identifying the small number of physicians who were not appropriate to act as preceptors.

- ✓ In the past three years, 96% of medical students responded "Yes" to the question "Would you recommend this site to your classmates?".
- ✓ Another 3% qualified their answer with "It depends on what you are looking for".

4.2 Family Medicine Rural Rotations

The RPAP has facilitated a marked increase in the number of residents undertaking a rural family medicine rotation and the increased length of these experiences. During the same time period, for reasons unrelated to the RPAP, the number of residents entering Family Medicine at the University of Alberta increased from 28 to

46 positions. As the program size increased, however, the proportion of residents taking rural rotations also increased from 50 - 57% of family medicine residents prior to 1992/93 to 75 - 82% subsequently. The marked increase in weeks of service in rural Alberta provided by family medicine residents is shown in Figure 3.

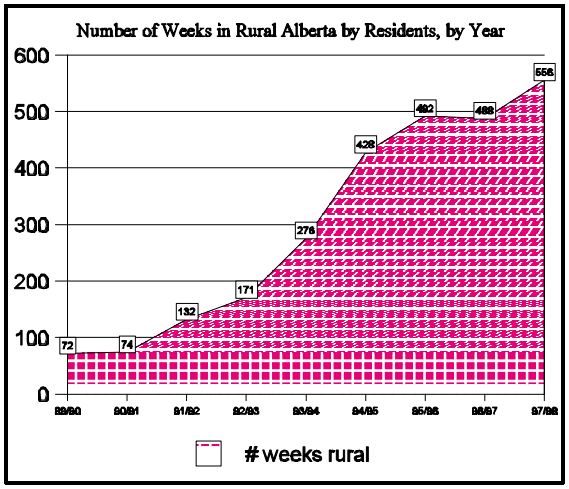


Figure 3

In 1997/98, there were 556 weeks of educational experience and service provided by family medicine residents; representing the equivalent in time of 11.5 years of supportive physician service (at 48 weeks per year) for rural communities.

The increase in the number of residents taking rural rotations and in the length of the rotations is shown in Figure 4. From 1989/90 a small number of four week rotations have evolved into a larger number of longer (16-20 week) rotations. The major increase in the number of participating residents occurred in 1992/93 with the formalization

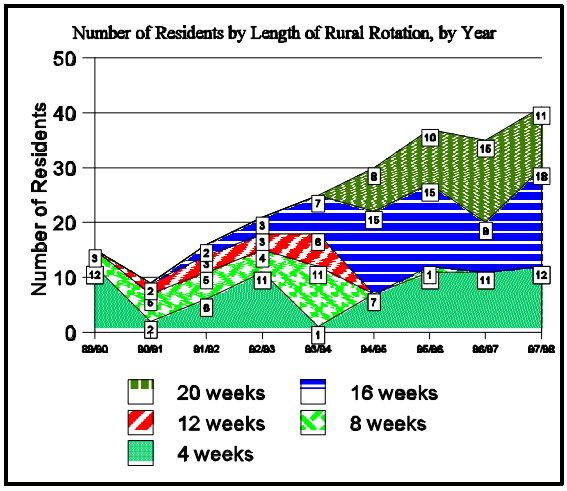


Figure 4

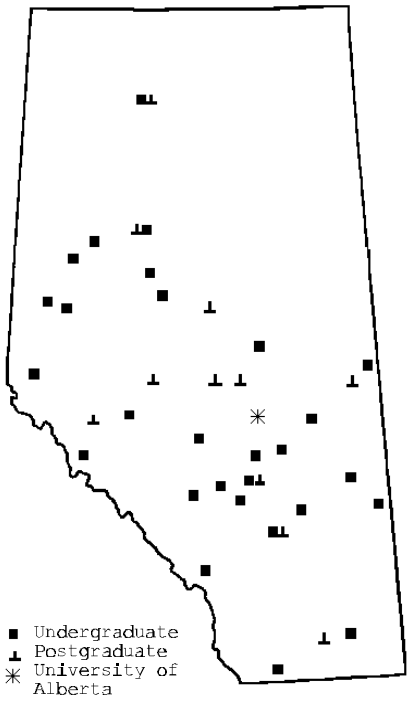
of the program, while the most significant increase in the length of rotations occurred in 1993/94 and has continued since then. Although the relationship between the length of rural rotation and subsequent rural practice is not clear, at this time the Department of Family Medicine is highly supportive of rural rotations being a minimum of 20 weeks.

Residents consistently rate their rural experience highly. Residents also evaluate rural preceptors in the general areas of: interpersonal communication with patients and other professionals, effectiveness as a teacher, feedback to the resident, and appropriateness as a role model. Ratings for rural preceptors are equivalent to those received by full-time urban-based faculty.

- ✓ 75% of the residents responded “Yes” to the question “Given the opportunity, I would choose to go back to this community (either as a resident or as a practising physician)”.
- ✓ An additional 23% gave qualified “Yes” responses.

4.3 Rural Practice Teaching Sites and Preceptors

Rural physician preceptors from over 30 communities are involved in teaching medical students and residents. These communities range from the far north of the province to near the southern border as shown on the provincial map. Currently there are 10 postgraduate training sites and 28 undergraduate sites, with 4 being combined



sites. There have been relatively few changes in preceptors and communities between 1992 and 1998. Most rural physicians view the program as a means of encouraging rural practice and influencing the training of potential new rural physicians.[6] Approximately 60 rural preceptors have been given a non-salaried clinical academic appointment with the Faculty of Medicine.

4.4 Faculty Development

Faculty development is vital to ensure that the preceptors are prepared to teach and supervise medical students and residents, and to act as appropriate role models.[7] The Department of Family Medicine provides “Spring Seeding”, a one and a half day faculty development workshop each year.

- ✓ Faculty development activities provide a means for effective communication between rural and urban academic physicians.
- ✓ Rural faculty have instigated many changes in the educational programs at the undergraduate and postgraduate levels.

Considerable effort is taken each year to determine the learning needs of preceptors with effective communication between teacher and student, and teaching techniques being the most valued themes. Yearly attendance from 1993 to 1998 has averaged 27 physicians; Spring Seeding is highly rated and valued by rural preceptors.

5.0 Third Year Special Skills Training

Graduates of Canadian family medicine training programs may often feel inadequately prepared to manage clinical problems requiring advanced technical skills in rural communities.[8] In most rural practices it is not feasible to have specialists such as obstetricians, surgeons and anaesthetists on staff; yet their services are required within rural communities. In order to better prepare family medicine residents for rural practice, the RPAP makes available 12 residency positions at the University of Alberta for third year special skills training. The increase in the number of family medicine residents undertaking third year special skills training, the months of training provided, and the number of disciplines providing the training are shown in Table 1. Up to 1997/98, a total of 61 physicians have taken special skills training in nine different disciplines (Table 2).

Academic Year	# Taking Third Year Special Skills Training	# of Months of Third Year Special Skill Training Provided	# of Disciplines Providing Training
1991/92	3	27	2
1992/93	3	36	5
1993/94	4	48	3
1994/95	12	117	5
1995/96	10	108	6
1996/97	17	178	8
1997/98	12	126	7

Table 1

Discipline	Number Trained	Total Number of Months of Training Provided
Anaesthesia	13	133
Emergency Medicine	25	276
Geriatrics	3	48
Obstetrics	13	78
Orthopaedics	1	6
Surgery	8	48
Palliative Care	3	18
Sports Medicine	1	6
Pediatrics	1	3

Table 2

✓ A third year of training in special skills is highly associated with entry into rural practice.

Twenty-six physicians who took special skills training between 1991/92 and 1996/97 are known to have entered practice either on a full time or locum basis in rural or remote communities, although not all in Alberta. Four physicians who took special skills training are not in rural practice, but are affiliated with a University training program preparing others for rural practice. In addition, two of these physicians do outreach geriatric clinics in rural Alberta. Starting in 1997/98, residents

were required to obtain a return-in-service agreement with a rural RHA in order to enter Special Skills training.

6.0 What the University of Alberta has learned

There is considerable evidence that positive experiences with rural medicine as undergraduates will influence future career choices.[9,10,11,12] There is also strong evidence to show that positive experiences in rural practice at the residency level will help influence career choices and practice locations.[13,14,15] Since 1991/92 there has been a three-fold increase in the number of medical students participating in a rural rotation. The number of family medicine residents doing rural rotations has increased by 2.5 times since 1991/92, with the number of weeks in rural Alberta increasing by four-fold. Third year special skills training, particularly in anaesthesia, surgery and obstetrics, is highly correlated with entry into rural practice.

✓ The RPAP has facilitated and supported a marked increase in rural experience for both medical students and family medicine residents.

Although we believe that the integration of these three rural educational programs, the high degree of participation of medical

✓ These educational programs represent only <u>one</u> element of a comprehensive program for addressing rural physician recruitment and retention issues.

students, family medicine residents, and rural preceptors, and the sustained program funding, represent key features for success in rural physician recruitment and retention, we also recognize that they are not sufficient in themselves. Even though the educational initiatives aimed at encouraging and preparing young physicians to undertake rural practice are critical to the future of rural health care in Canada[16], there are many additional socio-political influences affecting recruitment and retention of these physicians. These include:

- Marked reductions in funding for the health care system in Alberta - at both provincial and federal levels - have had many affects, including; staff shortages, facility reductions, infrastructure and equipment declines, negative impact on morale.

- Restructuring of the health care system in Alberta has created new challenges for communication and decision making.

- Difficult negotiations between Alberta Health and the Alberta Medical Association which cause concern amongst physicians.

- Current methods of payment for physicians may not provide appropriate funding for rural physicians in certain facets of service delivery.

- Community and local physician generated barriers exist which

may result in new physicians not feeling welcome in rural communities.

- Aggressive recruitment of Alberta primary care physicians to by the USA.

- Continued recruitment of foreign trained physicians by Alberta RHAs and communities.

7.0 Next Steps

The University of Alberta will continue to provide, encourage, and evaluate participation in the Rural Rotation Programs, at both the undergraduate and postgraduate levels. We will also work with the various stakeholders to identify and to address the socio-political factors that affect recruitment and retention of rural physicians.

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