Chapter 5.1.1

TRAINING IN FAMILY MEDICINE FOR RURAL PRACTICE IN CANADA

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Introduction

Distributed medical education i.e. medical education not occurring in tertiary or academic environments, is becoming increasingly mainstreamed such that the term 'distributed' may soon be obsolete. Medical education is moving more rapidly to the widespread adoption of the notion that physicians[1] must be trained in the environments where the majority of their future patients are found – i.e. not only in large urban tertiary environments. That the majority of patients are treated outside of tertiary care environments, was demonstrated in the model of distribution shown initially by White, Williams and Greenburg in 1961 (1) and validated by Green et al in 2001 (2).

Family medicine has truly led the way in this endeavour, with multiple programmes in Canada now embracing the need to engage communities and non-academic institutions in their residency programmes. This notable change in opinion has occurred over a relatively short period of time, certainly less than a decade – and the move to distributed medical education is having a profound impact as students and residents are increasingly trained in environments which provide them with access to the most appropriate clinical conditions and acuity of patients required for their education (3).

Alongside this there is currently a major shift taking place in Canada comprising a new longitudinal curriculum in Family Medicine. Known as the 'Triple C' curriculum, it focuses on a competency-based model of **c**omprehensive and **c**ontinuing **c**are with a patient-centered approach (4). This model fits very well with what is already in place in Northern Ontario for Family Medicine residency training (5). Further, it

[1] A 'physician' here (in North America more broadly) is another term for 'doctor' or general practitioner, while in countries like South Africa and Australia, a 'physician' is a specialist in internal medicine.

supports the social accountability framework of medical education as outlined in Boelen's definition of this for medical schools, adopted by the WHO:

> "*the obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve."* (6)

Establishing environments for rural medical education

While it may work on occasion, a medical school cannot simply arrive in a community and hand over residents[2] for training. An emerging culture of commitment, development of shared values and complementary missions; clearly defined roles and relationships; and a social contract with the patient population must be fostered, with the participation of patients, physicians, health care professionals, hospital staff and administrators.

It is critical to not underestimate the time and energy required to arrange for residency training to occur in smaller centres. Communities and physicians have to buy in to the model and understand how relevant it is for them. While it is often easier to convince communities, especially where there is a need for recruitment of health care providers, physicians may be skeptical especially if they perceive a lack of recognition for their efforts, added work for little income and even a potential loss of income. There has to be demonstrable 'value added' – perhaps not immediately, but visible in the near future.

Listening to **community leaders** and engaging them may help to move things forward. Bringing a **physician colleague** from a similar environment and circumstances, who has been successful in moving through the early phases, can help to convince physicians in a new community to try the educational milieu.

Avoid any comparisons between local opportunities and the 'ivory tower' or 'town-and-gown' approaches. Make it as simple and as enjoyable as possible. Above all, persist, visit regularly, communicate frequently and don't give up!!

[2] A resident – or registrar – is a qualified doctor who is part of a structured specialist training programme, be it vocational or postgraduate.

Medical education requires the involvement of **multiple agencies** - from the medical school to hospitals, clinics, community outreach, government and funding bodies, telehealth, accrediting and licensing authorities. All have specific needs with respect to documentation, reports, funding, agreements and legislative requirements; so attention to detail in this area can pave the way for a smooth transition of the distribution of medical learners from current programme practice environments to rural training.

To facilitate medical education in rural areas, major energy must be expended on communication, a review of available resources, engagement with various agencies' educational programme support and the development of practical tool kits pertinent to the local environment.

A good overview of the complexities inherent in developing the relationships necessary for the promotion of a robust network supporting medical education is found in Lozon's 2002 paper (7).While based on an environment encompassing university hospital networks, many of the discussion points are highly pertinent in any situation where medical education occurs.

Resources

Resource requirements for education are very important. This includes

- space for residents to see patients;
- models on how to make best use of space with limited facilities;
- the availability of staff resources for extra patients;
- hospital call rooms;
- classroom or other educational space; and
- Internet access and library services.

Beyond the work environment, residents require a place to live, transport to and from other required placements, social and family supports.

Support systems need to be clearly thought through. Where will the learners stay? How will they fit into cramped clinical space? What additional resources can be provided to help with clinical and academic requirements? What training will be provided to assist those who have not taught previously? What will I receive for doing all of this? Recognition beyond the financial is often highly regarded and can be as simple as a plaque on the wall. What help is available for encounters with difficult learners or interpersonal clashes? A single adverse encounter can result in the loss of a valued teacher for an extended period of time.

Clearly there must be adequate, sustainable **funding** for physicians, hospitals and clinical environments. Rae identified that funding models must change so that medical education is no longer subsidised by patient care dollars (8). There may need to be capital expenditure to ensure appropriate educational space and the availability of required equipment.

Policies and procedures must be in place to support educational activities; patients must be made aware of the educational environment, and the involvement of residents in their care.

Toolkits, to assist with the development of new learning environments, could include

- educational modules for orientation and faculty development;
- technology support and equipment;
- accommodation and transport options for residents;
- faculty appointment kits;
- templates for policies and procedures to be adapted for local use;
- templates for affiliation agreements and other necessary documents;
- models for communication and media coverage;
- assistance with job descriptions, hiring and performance review of non-clinical staff.

Human resources

Educational support for accredited training - particularly in the form of suitable, qualified personnel - is paramount. There must be clear lines of communication between clinical supervisors and programme directors; clear delineation of roles and responsibilities; orientation, faculty development and continuing education opportunities (9).

The process of faculty appointments required by accrediting bodies require should be as streamlined as possible for clinicians – and the role of clinical faculty must be clearly articulated to the accreditors. A major effort must be made towards communication and provision of information to accreditation surveyors. Few to date have had much experience with a non-university training environment with distinct funding and educational models.

Accreditation requirements

The language found in specialty specific accreditation requirements of the Royal College of Physicians and Surgeons of Canada (RCPSC) (10) reflects the highly university and tertiary environment focus of current training – but begs the questions of why this is important for family medicine?

The increasingly close ties between the RCPSC and the College of Family Physicians of Canada (CFPC) has led to more joint engagements and adoption of increasingly similar accreditation standards. This behooves those involved in distributed environments of medical education to encourage a review of these standards to include language and recognition of the highly variable settings for medical education - particularly for family medicine, but growing in importance for training in Royal College disciplines, led by the postgraduate environment at NOSM. Many Royal College disciplines now recognise the importance of 'community-based' rotations and opportunities - an early first step towards true distribution of training.

Leadership training

The need to encourage the development of the next generation of leaders in medical education if often overlooked. Little attention is given to leadership training or to succession planning for individuals in administrative or educational roles. For family medicine in rural areas, this is a concept that should be closely considered. In smaller communities, physicians are often asked to assume leadership in multiple activities ranging from hospital governance to disaster planning, to local politics. Residency training is an ideal time to develop skills in this area.

Tempering this, however, is the importance of teamwork and interprofessional collaborations, which are of vital importance in family medicine as a discipline generally, but are particularly noticeable in distributed settings. This is an example of another area where rural training shines and inter- and intra-professional partnerships are readily observed.

What's the evidence?

Rural training as rural recruitment

The experience in Northern Ontario clearly demonstrates that individuals trained in rural environments are more likely to remain there in practice. This has been found in other programmes in North America (in the WWAMI[3] programme for instance) and in other parts of the world, noticeably in Australia.

The Northern Ontario School of Medicine (NOSM) is tracking where its graduates end up in practice. A recent review of practice locations of graduates from NOSM and its predecessor organisations over the past five years demonstrated that 74% are in rural or regional areas (11). This confirms work completed earlier by the Northern Ontario Medical Program, one of the organisations amalgamated with NOSM as it developed (12).

Comprehensive practice

In addition, it has been found that family physicians in rural practice have a more comprehensive practice than their highly urban counterparts. A review of the practice patterns of residents in Ontario who completed a PGY3 year in enhanced skills - ranging from Emergency Medicine to Anesthesia to Care of the Elderly - showed that those practicing in Northern Ontario five and ten years later, had a mixed practice including both hospital and clinic settings (13). This was identified using billing data. Individuals who had completed anesthesia training in particular, maintained a comprehensive practice. This evidence was not found in those completing PGY3 training in more urban centres, nor in those whose major practice address was not in Northern Ontario.

Standards

Other medical schools in North America are embracing distributed environments, particularly for clerkship training in undergraduate education and for family medicine training. In Canada, these range from coast to coast (14).

[3] Washington, Wyoming, Alaska, Montana and Idaho (USA)

Studies show outcomes on exams at least as good as those of the standard tertiary care university environment (15, 16). The first three years of experience at NOSM with the Medical Council of Canada exams validate this. Part 1 is written at the end of medical school and Part 2 is written in year 2 of residency training. NOSM MD students and NOSM Family Medicine residents have scored at, or close to, the top each year to date.

Practice pearls

What to do

- Make the necessary culture shift to
  - build relationships and develop shared values
  - engage the communities
  - engage the doctors and health care professionals
  - engage the hospitals
  - engage the accrediting bodies - encourage validation of alternative models for implementation e.g. CCC FM curriculum
- Attend to the importance of selection
- Train in the community environment as people are more likely to remain – particularly if there are enhancement options
- Pay attention to human resources
  - Ensure there is capacity for training (models that can assist)
  - Support staff requirements
  - Attend to new staff requirements
  - Offer faculty development and continuing education
  - Offer orientation and education – all staff
  - Undertake performance management (development of leaders)
  - Facilitate faculty appointments
  - Appoint dedicated liaisons
- Ensure there are the necessary physical resources
  - Transport
  - Accommodation
  - Safety
  - Educational space
  - Call rooms
  - Equipment

    - Connectivity
        - Address hospital firewall issues
        - Ensure online access for learning resources
        - Identify concerns with cellphone/pager compatabilities
- Financial resources – ensure there is adequate sustainable funding for
    - physicians
    - hospitals
    - clinic environments
- Ensure there is support for accredited educational activities
    - Affiliation agreements
    - Patient demographics
    - Medical records
    - Policies and procedures
    - Links between hospitals and medical school
    - Vision, mission and value statements
- Communicate widely
- Visit communities and learners
- Visit again…and again
- Support and validate communities and learners
- Have communities participate in selection processes.

What not to do

- Don't underestimate how much time this takes to set up.
- Don't focus on the financial. You will never replace clinical income.
- Don't forget the importance of learner and teacher satisfaction.
- Don't ignore the potential effects of learner isolation.
- Don't always rely on technology – in-person works wonders.
- Don't make getting a faculty appointment a difficult process.
- Don't alienate opinion leaders.
- Don't tell… ask instead.
- Don't give up…

Conclusion

Training for rural practice in family medicine brings numerous opportunities forward for change in the manner in which medical education is viewed. It is avant-garde and flexible; individuals who train in distributed settings are more likely to remain and work there; the training they receive prepares them for practice in any environment.

As noted at the beginning, a major shift in thinking about how medical education is delivered is underway. Educating family physicians in the environment where patients receive the majority of their care, in interprofessional settings with a team based model, will assist with the crisis of health human resources found in many situations. Looking forward – for the future of our health care system.

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