Training for family medicine in Canada and general practice in New Zealand: how do we compare?

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The Canadian public health system and the Canadian view of health care have many similarities to New Zealand's (NZ's). The 'CanMeds' philosophy of medical practice,[1] and the principles of family medicine in Canada[2] have influenced, and are concordant with, professional objectives of the Medical Council of NZ and The Royal New Zealand College of General Practitioners (RNZCGP).[3,4] As in NZ, most Canadians are enrolled (rostered) with a family practice, and expect to access secondary and tertiary services through appropriate referral.

Family medicine is recognised in Canada as a specialty medical discipline,[5] as general practice is in NZ. Both countries have established vocational training programmes for generalist doctors—family medicine residents in Canada are the equivalent of general practice registrars in NZ.

Medical training

In Canada, with the partial exception of Quebec, medical degrees are generally four-year second degrees (taken after a BSc or equivalent). The clerkship (third and fourth) years consist of modular clinical rotations over a 24-month period, similar in structure to the final (trainee intern) year of the NZ six-year undergraduate degree.

During the six months before graduation, all Canadian medical students apply to enter residency programme(s) directly. While in NZ new medical graduates must spend at least two years rotating as general interns (PGY1 and PGY2 house surgeons) before entering vocational training for a medical specialty, in Canada clinical rotations are undertaken within a specific specialty training programme. Residents in all medical disciplines participate in a structured, longitudinal educational programme running over several years, integrated with each of their approved clinical and/or research rotations.

In NZ, as in the United Kingdom, vocational training for most medical specialties is organised largely through the professional Colleges, with experienced Fellows responsible for training their successors. Trainees (registrars) are most often employed by health care providers to provide clinical services under direct supervision, although there are differences between general practice–based and hospital-based registrars.

In contrast, vocational residency programmes in Canada are jointly based in university departments and affiliated clinical services, with residency teachers holding joint clinical-teaching posts. While residents are postgraduate university students for the duration of their training, with ready access to ongoing academic, IT and pastoral support from university staff and services at their place of work, they are also employed by the provincial health service throughout their residency. All residents, regardless of discipline, receive comparable pay on a scale that increases annually commensurate with each year postgraduation. The professional Colleges in Canada set national standards for Fellowships in their disciplines, and work with the universities in each province to align the residency programme

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objectives and outcomes with the competencies required in that medical discipline.

Family medicine residency/ GP vocational training

In Canada there are 17 family medicine residency training programmes, each linked to a university with a medical degree programme. Each university department of family medicine offers an intensive two-year residency programme, with an integrated mix of hospital and community clinic rotations, embedded in a longitudinal educational course, based at a 'home' family medicine teaching practice.

Some programmes, such as those offered by Queen's University in Kingston and Memorial University in Newfoundland, have a declared mandate to specifically prepare family physicians (FPs) for rural and remote practice. A limited number of places are available for these residents to undertake a third clinical experience year. Electronic learning platforms, video-conference seminars and workshops, and robotic telemedicine facilities all help keep residents in remote clinics supervised and fully participant in educational activities.

Clinical placements for FP residents in Canada are concentrated in a relatively small number of 'academic family practices', where between three and 10 residents will be working at any one time, seeing patients and reporting to one or more dedicated clinical teacher supervisors; a contrast to the more disbursed NZ teaching and learning model where each registrar has their own GP teacher in a single practice setting for several months at a time.

NZ instead has one vocational training programme—the three-year General Practice Education Programme (GPEP) follows two rotating general intern years (PGY1 and PGY2). RNZCGP Fellowship requirements can currently be met after one year as a GPEP1 registrar and two years in GPEP2.[6] The more recently developed rural hospital doctors training (a joint university/College initiative) takes four years—both Fellowships can be completed concurrently in a minimum of four years.[7]

The range of expected competencies for a Canadian FP graduate is extensive, and comparable to the range of knowledge and skills required for the combined NZ Rural Hospital Doctors/General Practitioner Fellowship. All Canadian family medicine residents must be competent in emergency room skills, able to handle complex trauma and resuscitation incidents. All are required to train in intrapartum obstetrics and provide care for general medical patients in hospital. Competence in such areas as acute and developmental paediatrics, management of major psychotic illness, ongoing care of the elderly is expected, alongside acquisition of advanced clinical inquiry and research skills. Fellowship of the Canadian College of Family Physicians is awarded after successful completion of written and clinical exams at the end of the two-year residency. The popularity of the optional third year suggests that, while a two-year family medicine residency may be too short for some, three years' well-designed and well-supervised intensive postgraduate training allows the vast majority of residents to achieve the competencies necessary to practise not only in urban areas, but also in small hospitals and the community in remote rural areas.

Table 1. Minimum number of years tertiary education to complete Fellowship in Family Medicine or General Practice

Compulsory course pathway	Canada (years duration)	Quebec (without bachelor's degree)	NZ (years duration) (bachelor's degree not generally required)
Bachelor's degree	3	0	0
Medical degree	4	5	6
General registration/ rotation programme	0	0	2
Vocational training/ residency programme	2	2	3
Total minimum time to Fellowship	9	7	11

There is continued debate about the range of skills that it is possible to acquire in two years, especially given that many urban FPs no longer undertake intrapartum obstetrics. However, to date a universal and comprehensive training programme has been favoured by the Canadian College, not least because of the undisputed need to provide a highly skilled medical workforce to service vast areas of lightly populated remote regions. (See Box 1. Practice profile.)

In comparison

While NZ does not have to contend with such vast distances or the long Canadian winter, many aspects of the health system, many of the health problems, and issues related to family medicine and family medicine training, are similar. How does NZ vocational training for general practitioners (GPs) compare to the Canadian family medicine training programme and what might be relevant and usefully applied here?

Obvious points of difference include:

- the total number of years of tertiary education required to fully train an FP/GP;
- point of entry and length of the respective residency/vocational training programmes;
- mode of employment while in training;
- the range of expected competencies for new FPs/GPs;
- the nature of the training institutions, and
- the nature of family medicine/GP training practices and clinical teacher roles.

Of these, the differing point of entry (at medical degree graduation for Canadians; after two plus general intern years for New Zealanders) is one of the most significant. While the rotating general intern years in NZ gives more time to decide upon type of specialty training, educational support is serendipitous and unstructured. The Canadian direct-entry model ensures that all clinical rotations (in both primary and secondary care settings) can be embedded within a longitudinal educational programme with family medicine/general practice as its core. Educational quality is maintained throughout the programme by a tertiary education provider (not a clinical service provider) and graduating Fellows meet the wide ranging requirements of the Canadian College's competency-based framework.[2]

If it is possible to train an FP/GP in a shorter training time without compromising—and even enhancing—quality, NZ would do well to examine point of entry to vocational training. Entry to

Box 1. Practice profile: a remote rural health service and academic training centre

At the Labrador Health Centre based at Goose Bay, Newfoundland and Labrador, medical services are provided by 13 FPs in a 25-bed facility, along with a surgeon, an obstetrician and an anaesthetist. The FPs also provide outpatient and clinic services, not only at the main health centre, but also to the remote clinics dotted along several thousand kilometres of inhospitable coastline. Mainly serving Inuit and Innu peoples, these clinics deal with a formidable array of health problems on a daily basis. Fully collaborative practice and excellent communication with community leaders and the dedicated nurses and nurse practitioners who are most often at these remote locations is paramount, and daily role modelling of good interprofessional practice is routine. Use of robotic telemedicine equipment is being successfully used at some of the most distant clinic locations.

This centre is also an academic family practice, hosting two medical students and up to four family medicine residents, and sometimes a paediatric resident, at any one time. The FP clinical teachers hold joint clinical-teaching appointments with the Department of Family Medicine at Memorial University in St John's—four days' drive away. The clinical experience available to residents and medical students alike is wide ranging, and is well-supervised and well-supported by all clinicians. Family medicine residents at Goose Bay are also expected to participate in the Centre's ongoing research programmes investigating high rates of youth suicide, diabetes, obesity and alcoholism (personal communication Dr Michael Jong, Director Family Medicine training, Labrador Health Centre, Sept 2010) .

vocational training after one rotating intern year might well be a workable compromise, especially if both hospital and community clinical rotations were integrated into a continuous educational programme.

Secondly, mode of employment for trainees within family medicine/vocational training programmes makes a considerable difference for both programme recruitment and retention. Family medicine in Canada consistently attracts good numbers of new graduates to the 17 residency programmes, largely because all residents-in-training are employed and trained on the same basis regardless of medical discipline or particular training programme. Neither financial parity nor certainty of employment is currently offered to NZ general practice vocational trainees; training places for GPEP1 remain unfilled despite workforce shortages (personal communication J. Pearson, Education Officer RNZCGP, March 2010).

Thirdly, it is worth considering the way the concentration of resident training into a smaller number of dedicated community teaching sites in Canada has allowed for cost-effective investment in infrastructure, good professional development of clinical teachers, clinic-led research, and a clinic environment where family medicine residents are well supported in both their research and clinical learning, even in remote settings. While the one-to-one trainee/teacher model has been a good one for the NZ small practice context, the increasing numbers of larger practices and health centres have considerable potential to usefully concentrate and improve teaching and training resources. This would also allow for much needed interprofessional learning programme components that could provide training in teamwork, the promotion of quality in clinical practice, and improved patient safety—training needs that have been repeatedly identified but not yet realised in NZ.[8]

If a shift in training resources in this way could be accomplished without compromising one of the most distinguishing strengths of the NZ programme—the five-month-long immersion in a single practice setting—this would combine strengths from both systems. Canadian experience suggests that, as NZ reviews its general practice vocational training, we should seriously consider:

- Commencing GP vocational training at PGY2 level, i.e. one-year post-graduation;
- Incorporating both hospital and community clinical placements;
- Integrating all clinical placements into a three-year educational programme;
- Retaining several five-month-long immersion general practice placements;
- Security of trainee employment for the duration of the programme;
- Utilisation of both College and university expertise, staff and student support.

References

1. The CanMEDS 2005 Physician Competency Framework. 2005. (Accessed 29.09.10, at http://rcpsc.medical.org/canmeds/CanMEDS2005/index.php.)
2. CanMeds—Family Medicine. 2009. (Accessed 29.09.10, at http://www.cfpc.ca/English/cfpc/education/CanMEDS/default.asp?s=1 document.)
3. Medical Council of New Zealand. Cole's medical practice in New Zealand. Wellington: Medical Council of New Zealand; 2006.
4. The Royal New Zealand College of General Practitioners. The value of general practice. Wellington: The Royal New Zealand College of General Practitioners; 2002.
5. McWhinney I. A textbook of family medicine. New York: Oxford University Press; 1989.
6. The Royal New Zealand College of General Practitioners. General Practice Education Programme Stage 1 handbook. Wellington: The Royal New Zealand College of General Practitioners; 2007.
7. Postgraduate Diploma in Rural and Provincial Hospital Practice (PGDipRPHP). University of Otago, 2010. (Accessed 29.10.10, at http://www.otago.ac.nz/courses/qualifications/pgdiprphp.html.)
8. Paterson R. Lessons from complaints: implications for medical education. NZ Med J. 2010;123:No.1314.

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COMPETING INTERESTS

None declared.