Special issue with *Education for Health*

**PROJECT REPORT**

Implementing the CanMEDSTM physician roles in rural specialist education: the multi-speciality community training network

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**ABSTRACT**

**Context:** Changing medical education to realign it with societal needs has become a renewed priority in many countries. Advanced training in rural settings to prepare physicians to better serve rural areas has received particular attention around the world. Such initiatives are usually targeted at primary care practitioners. Few initiatives have been designed to enhance specialist training in a rural setting, let alone adapt specialist competency frameworks such as the CanMEDSTM roles of the Royal College of Physicians and Surgeons of Canada to non-urban medical education.

**Issue:** We describe an innovation in medical training for rural competence for specialist physicians using the CanMEDS framework near London, Ontario, Canada. Since 1997, the University of Western Ontario has established its Multi-Specialty Community Training Network (MSCTN) to provide rural and regional training opportunities for specialty residents in anaesthesia, general surgery, internal medicine, paediatrics, obstetrics and psychiatry. It became the first program in Canada to fully adapt the new CanMEDS roles into learning objectives and evaluations.

**Lessons learned:** Competency-based frameworks like CanMEDS are important because they provide a comprehensive tool to organize outcome-based curricula. The CanMEDS roles framework has been very useful in developing educational goals for rural/regional specialty resident rotations as well as forming a constructive basis for resident, preceptor, and program evaluations.
Our experiences with this program may provide lessons for others planning training for specialists in rural settings, and those adopting the CanMEDS competency framework.

**Key words:** Canada, CanMEDS, competency; competency frameworks, medical education, rural, specialist.

### Context

Since the 1990s there has been increasing attention paid to realigning the training of healthcare professionals to meet the needs of rural populations. There have been numerous developments incorporating rural medical education as a method to ensure rural physician competence and promote rural physician retention\(^1\)\(^-\)\(^5\). The majority of these have focused on primary care. However, the 1990s witnessed growing awareness of shortages of rural and regional specialist physicians. It was recognized that the practice skills and knowledge needed for rural/regional specialist physicians’ practice setting were considerably different from the university hospitals where traditionally most, if not all, of the training for specialist physicians in Canada had taken place. There was a need to develop new approaches for specialist medical education that would better address these societal needs. Although rural learning experiences have been described in some specialty training programs, none appear to have focused on a societal needs competency framework\(^6\)\(^-\)\(^-\)\(^22\).

### Issue

In the 1990s, the Royal College of Physicians and Surgeons of Canada (RCPSC) commissioned a task force to re-examine its core curriculum for specialist postgraduate medical education. The RCPSC (established in 1929) is the legal standard-setting body for specialist physicians in Canada, and is responsible for accrediting the specialist training programs at Canada’s 17 medical schools. The RCPSC task force of the Societal Needs Working Group became the ‘CanMEDS 2000 Project’, commissioned to examine Canadian healthcare needs and assess their implications for postgraduate specialty training programs. CanMEDS’ official goal was to ‘...identify the core competencies generic to all specialists to meet the needs of society’\(^23\). This project defined clusters of competencies referred to as ‘physician roles’. These roles included: Medical Expert (the central role), Communicator, Collaborator, Health Advocate, Manager, Scholar, and Professional (Fig 1). In 1996, the RCPSC adopted the new framework which now forms the basis for the educational mission of the Royal College and has been incorporated into its standards for curriculum, accreditation, evaluation, examinations, and continuing professional development\(^24\)\(^-\)\(^27\). The roles and their key competencies are outlined (Fig 2). CanMEDSTM is described further elsewhere, and has subsequently been adopted by jurisdictions around the world\(^28\).

It was in response to the needs identified for rural specialist education and for societal-responsive CanMEDS competencies that the University of Western Ontario (London, Ontario, Canada) Faculty of Medicine and Dentistry (now the Schulich School of Medicine) established the Multi-Speciality Community Training Network (MSCTN) in 1997. The program was created to enhance the rural relevance of specialist education and to provide specialty residents the opportunity to perform part of their training in rural and regional settings. The MSCTN was designed to provide a rural and regional community-based component of specialty training that was evidence-based, needs-driven, and outcome-measured. It directly addressed the inherent challenges of adapting specialty training standards to rural settings. We describe the design, activities, evaluation tools, and preliminary outcomes of the MSCTN. Given the recent worldwide attention given to competency frameworks, CanMEDS, and rural medical education, we believe these findings will be of use to others interested in rural/regional and specialist medical education.
Program description

In Canada, there are 17 medical schools that provide the postgraduate residency training programs. These postgraduate residency training programs must meet the accreditation standards set by the College of Family Physicians of Canada for Family Medicine programs. These are 2 years in length but also include separate, optional 3rd year programs, such as emergency medicine. The postgraduate specialty training programs are usually 5–6 years in length and the accreditation standards are set by the Royal College of Physicians and surgeons of Canada.

The MSCTN was a collaborative consortium for postgraduate medical education based in and around the Southwestern Ontario region of Canada. The partnership included the University of Western Ontario (UWO) and a variety of communities and physicians in the region. The MSCTN had three principle goals:

1. to enhance the rural competence of specialist residents
2. to provide exposure to rural and regional community medical practice in order to promote rural and regional specialist recruitment
3. to increase the understanding of rural and regional patient care among all specialty residents and university hospital faculty.
### The Royal College of Physicians and Surgeons of Canada

#### CanMEDS

**A Framework of Essential Competencies for Canadian Specialist Physicians**

**Medical Expert / Clinical Decision Maker**
- The specialist must be able to...
  - demonstrate diagnostic and therapeutic skills for ethical and effective patient care
  - access and apply relevant information to clinical practice
  - demonstrate effective consultation services with respect to patient care, education and legal opinions

**Communicator**
- The specialist must be able to...
  - establish therapeutic relationship with patients/families
  - obtain and synthesize relevant history from patients/families/community
  - listen effectively
  - discuss appropriate information with patients/families and the health care team

**Collaborator**
- The specialist must be able to...
  - consult effectively with other physicians and health care professionals
  - contribute effectively to other interdisciplinary team activities

**Manager**
- The specialist must be able to...
  - utilize resources effectively to balance patient care, learning needs, and outside activities
  - allocate finite health care resources wisely
  - work effectively and efficiently in a health care organization
  - utilize information technology to optimize patient care, life-long learning and other activities

**Health Advocate**
- The specialist must be able to...
  - identify the important determinants of health affecting patients
  - contribute effectively to improved health of patients and communities
  - recognize and respond to those issues where advocacy is appropriate

**Scholar**
- The specialist must be able to...
  - develop, implement and monitor a personal continuing education strategy
  - critically appraise sources of medical information
  - facilitate learning of patients, house staff/students and other health professionals
  - contribute to development of new knowledge

**Professional**
- The specialist must be able to...
  - deliver highest quality care with integrity, honesty and compassion
  - exhibit appropriate personal and interpersonal professional behaviours
  - practise medicine ethically consistent with obligations of a physician

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**Figure 2: The 1996 CanMEDSTM Competency Framework. Copyright Royal College of Physicians and Surgeons of Canada 1996, reproduced with permission.**

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**Program and evaluation design**

One of the first important challenges faced in designing this program was to set objectives and evaluations that would be relevant to the residents involved the rural and regional settings and their preceptors, as well as the main full-time university specialty faculty. Through systematic consensus-building, the new RCPSC CanMEDS roles were adapted with the productive input of both university and community teaching faculty. Every effort was made to ensure the objectives were relevant to the rural and regional setting and to link the evaluations to the objectives in a simple form to...
facilitate completion, discussion, and analysis. These instruments are displayed (Appendix I).

After the resident objectives and evaluation form was developed, it was then felt to be congruent to include a section of the CanMEDS objectives in the form developed for evaluation of the preceptor (clinical teacher) to be completed by the resident (Appendix II). We added a question on the clarity and appropriateness of the objectives to the overall learning experience and site evaluation form to be completed by the residents (Appendix III).

The objective and evaluation tools were designed to be used by residents and preceptors during rural/regional rotations. Rotation length would be flexible, from one to six months, usually in the third postgraduate year of specialty training. Placement community population varied from 7500 to 75 000. All communities were in Southwest Ontario, a predominantly rural but not remote part of Canada with a shortage of both family physicians and specialists.

From July 1997 to June 2004, 174 residents completed 287 rural/regional placement months. All residents were in specialty training programs (general surgery, paediatrics, internal medicine, anaesthesia, obstetrics, psychiatry and other) except emergency medicine residents, who were undergoing a postgraduate year three program following completion of a 2 year family medicine residency training program. Community preceptors were predominantly RCPSC fellowship certified specialists in the above listed disciplines, practising in rural/regional communities.

For further program description and evaluation is published separately. See also ‘SWORRM: The First 5 Years and into the future’, Section 8 Postgraduate: Multi-Specialty Community Training Network. This detailed report can be accessed directly or through The University of Western Ontario, Schulich School of Medicine and Dentistry website.

Lessons learned

The CanMEDS roles of physicians have provided a useful framework for adapting learning objectives and evaluation tools for UWO’s rural and regional Multi-Specialty Community Training Network program. In the establishment of the program, the process of developing and aligning the CanMEDS roles was very positive in that it involved university and regional faculty; it helped solidify the learning objectives of the program and the evaluation process and so gained acceptance.

The use of objectives that have been developed to be relevant to the rural/regional setting have made them more useful to the participating residents and preceptors. Residents (n = 66) ratings of the clarity and appropriateness of the MSCTN objectives were high initially (5.37 on a Likert scale of 1–7 in the first year 1997–1998) and have increased since then (6.13 in 2001–2002).

Modifying the CanMEDS roles and competencies to be the MSCTN rural/regional specialty training objectives enabled residents' MSCTN training to fit into the overall specialty training, teaching and learning paradigm much better than separate unlinked objectives. This has become much more important over time for residents, preceptors and central faculty because the CanMEDS competencies have been accepted nationally as the core educational framework for RCPSC accredited specialty training programs.

Conclusion

The UWO MSCTN illustrates how the CanMEDS physician roles provide a very useful framework that can be specifically adapted to rural and regional specialty training. This adaptation has been useful for residents, regional faculty, departments, sites and programs involved as we strive to provide the most relevant, highest quality rural and regional training for our specialty residents. We believe that our experiences will be useful to other programs interested in
further development of these roles and competencies and evaluation tools.

References


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11. Kairys S, Newell P. A rural primary care pediatric residency program. *Journal of Medical Education* 1985; **60**: 786-792.


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Appendix I

MULTI-SPECIALTY COMMUNITY TRAINING NETWORK

PRECEPTOR EVALUATION OF RESIDENT

(to be completed by Main Preceptor/Clinical Teacher)

Resident: ________________________________  Specialty: ________________________________
Main Preceptor/Clinical Teacher: ________________________________  Site Location: ________________________________
Dates of Rotation: ________________________________  to ________________________________

OBJECTIVES (modified from Can Meds 2000)

Medical/Expert/Clinical Decision-Maker
“Know and do the right thing.”
- Identify the knowledge and skills required for a rural/community based practice and note how they differ from urban practice.
- Identify limitations and demonstrate use of referral resources appropriately.
- Demonstrate diagnostic and therapeutic skills for ethical and effective evidence-based patient care within the context and limitations of the rural/community environment.
- Identify peer review, audit and other methods of assessing one’s own practice and rural/community patient care.

Communicator
“Communication is the key to success.”
- Identify particular health care challenges and difficulties from a rural/ community patient's cultural and geographic context.
- Demonstrate good interviewing and communication skills with patients.
- Demonstrate effective communication with all members of the rural/ community health care team as member, co-ordinator and leader.

Collaborator
“Don’t get swamped.”
- Identify and use local community resources, programs and distant referral resource and clinical support networks.
- Demonstrate collaboration as community consultant with both local family physicians and tertiary care subspecialists.
- Identify when and how to effectively transfer patients from smaller referring centres, and to tertiary care centres.

Manager
“Keep the CEO off your back.”
- Identify effective practice management appropriate for rural/community practice.
- Identify strategies to develop your referral base.
- Identify and discuss benefits and risks of investigations and treatments available locally, regionally and at tertiary care centres.

<table>
<thead>
<tr>
<th>Needs</th>
<th>Is</th>
<th>Not Applicable</th>
<th>Applicable</th>
<th>Comments/Education Plan</th>
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<tbody>
<tr>
<td>Improvement</td>
<td>Outstanding</td>
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</table>

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### Health Advocate

**"You can make a difference in your community!"**
- Demonstrate preventative health care and health promotion
- Advocate for accessible and appropriate rural health care.
- Identify existing and potential resources to meet the unique needs of your community patients.

<table>
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<tr>
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<tbody>
<tr>
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<td>7</td>
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</table>

Comments/Education Plan

### Scholar/Learner

**"Yes, you can be a scholar in the country."

- Identify and develop strategies for self-directed life-long learning strategies including use of distance education to maintain up-to-date and competent skills relevant to a rural/community setting.
- Identify clinical research appropriate to one’s scope of practice, interests and rural/community setting.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>7</td>
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</tbody>
</table>

Comments/Education Plan

### Professional/Personal

**"Remember yourself, your partner and your children."

- Identify and experience the joys and challenges of rural/community medical practice and life.
- Identify and develop strategies to balance personal, family and professional needs and demands.
- Demonstrate positive attitude and working relationships with patients, staff, administration and colleagues.

<table>
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<tr>
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Comments/Education Plan

### Additional Comments

**Use back of form if needed**

### Signatures

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<th>Date</th>
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## Appendix II

**MULTI-SPECIALTY COMMUNITY TRAINING NETWORK**

**RESIDENT EVALUATION OF RURAL/COMMUNITY PRECEPTOR - Page 1**

(to be completed by the Resident)

<table>
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<th>CATEGORIES</th>
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<th>COMMENTS AND SUGGESTIONS</th>
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<tr>
<td>Educational Planning and Organization</td>
<td>a) Near beginning of rotation, discussed with you</td>
<td>1</td>
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<tr>
<td></td>
<td>- expectations of you're patient care responsibilities</td>
<td>1</td>
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<tr>
<td></td>
<td>- your expectations re clinical experience and teaching</td>
<td>1</td>
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<td></td>
<td>b) Helped you form realistic plan</td>
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<td></td>
<td>c) Reviews timed appropriately</td>
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<td></td>
<td>- near mid-point of rotation</td>
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<td>- near end of rotation</td>
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<td>d) Time management</td>
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<td></td>
<td>- balances patient care with teaching</td>
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<tr>
<td></td>
<td>- available to discuss clinical cases and other issues</td>
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<td>7</td>
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<td>Approaches to Teaching</td>
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<td>1</td>
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<td></td>
<td>b) Shared responsibility effectively with appropriate balance of supervision/independence</td>
<td>1</td>
<td>1</td>
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<td></td>
<td>c) Variety of review and feedback provided</td>
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<td>- focus on specific problem areas</td>
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<td>- strengths identified and supported</td>
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<td>- weaknesses labelled and discussed</td>
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<td>d) Evaluation</td>
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### Appendix II contd

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<th>Demonstration of knowledge, skills, attitudes</th>
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<td>Communicator</td>
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<td>Collaborator</td>
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<td>Health Advocate</td>
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<td>Scholar/Learner</td>
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<td>Can Meds 2000</td>
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| Overall Teaching Assessment                  | 1 | 7 | N/A |
| All things considered is the instructor effective as University teacher? |

### Overall Assessment

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<th>Areas of Strength:</th>
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<th>Areas Needing Attention:</th>
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<th>Suggestions for Improvement:</th>
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<th>Other Comments:</th>
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### Signature (optional)

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Use back side of this form if needed.
Appendix III
MULTI-SPECIALTY TRAINING NETWORK
OVERALL LEARNING EXPERIENCE
(to be completed by the Resident)

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>COMPONENTS</th>
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<th>Is Outstanding</th>
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<th>COMMENTS AND SUGGESTIONS</th>
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<td>Rotation Objectives</td>
<td>a) Clarity</td>
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<td></td>
<td>b) Appropriateness</td>
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<tr>
<td>Teaching</td>
<td>a) Quality</td>
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<td>b) Amount of Teaching</td>
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<tr>
<td>Location</td>
<td>a) Learning Opportunities</td>
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<td>b) Education Facilities</td>
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<td>c) Accommodation and Travel Support</td>
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<tr>
<td>Overall Learning Experience</td>
<td>a) Overall experience</td>
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<td></td>
<td>b) Overall, how would you rate this rotation as a learning experience?</td>
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</tbody>
</table>

I Liked Most

I Liked Least

Resident Signature (optional) ______________________________

Note:
At the end of your rotation please complete this form and return to your Main Preceptor/Clinical Teacher;
or you may forward the form to the SWOMEN RR, 120-100 Collip Cr., London ON N6G 4X8

Thank you for your valuable feedback