

Happenings

Burgeoning Opportunities in Nursing Research

**Nancy Edwards, Alba DiCenso, Lesley Degner,
Linda O'Brien-Pallas, and Janice Lander**

Research opportunities for nurses in Canada have never been greater. Federal government funding of health research, including nursing research, has increased substantially in recent years. The priorities of many funding agencies have shifted to include a strong emphasis on interdisciplinary collaborative teams, providing an even greater opportunity for nurses to share in the research experience. In spite of the opportunities, the number of nurses applying for Canadian Institutes of Health Research (CIHR) and Canadian Health Services Research Foundation (CHSRF) research funds as principal investigators remains low relative to other disciplines. The application success rate for nurses is also lower than the overall average. New initiatives by CIHR and CHSRF are explicitly focused on building the capacity of Canadian nurses to lead and contribute to emerging and established research agendas. These initiatives, which are the subject of this paper, may be a remedy for the low level of research funding in nursing.

In the year 2000, five nurses were awarded Nursing Chairs by CHSRF and CIHR. Co-funders for these 10-year awards include the Ontario Ministry of Health and Long-Term Care, the Alberta Heritage

Nancy Edwards, BSc(N), PhD, is Professor and Director, Community Health Research Unit, School of Nursing, University of Ottawa, Ontario, Canada. Alba DiCenso, PhD, is Professor, School of Nursing and Department of Clinical Epidemiology and Biostatistics, McMaster University, Hamilton, Ontario. Lesley Degner, RN, PhD, is Professor, Faculty of Nursing, University of Manitoba, Winnipeg, Canada. Linda O'Brien-Pallas, RN, PhD, is Professor, Faculty of Nursing, University of Toronto, Ontario, and Co-Principal Investigator, Nursing Effectiveness, Utilization and Outcomes Research Unit, University of Toronto site. Janice Lander, RN, PhD, is Professor, Faculty of Nursing, University of Alberta, Edmonton, Canada.

Foundation for Medical Research, and the Winnipeg Regional Health Authority.

Unique to the Nursing Chairs is a strong emphasis on mentoring the next generation of nursing and health-services researchers, the involvement of decision-maker partners in their programs of research and learning activities, and an impressive slate of learning opportunities for individuals at various stages of their research career. Dr. Linda O'Brien-Pallas at the University of Toronto is building a virtual network amongst policy-makers, multidisciplinary researchers, nurses, and students to foster capacity and expertise in nursing health human resources. Dr. Alba DiCenso, based at McMaster University, is mentoring nurses who are interested in conducting research related to the introduction and evaluation of advanced practice nursing (APN) roles and interventions. Dr. Nancy Edwards at the University of Ottawa holds a Chair in Multiple Interventions for Community Health Nursing. The focus of Dr. Lesley Degner's Chair is the development of evidence-based nursing practice in cancer care, palliative care, and cancer prevention. In Alberta, Dr. Janice Lander holds a Chair in innovative nursing interventions and knowledge transfer.

Unique learning opportunities have been designed by each of the Chairs (see Appendix 1). For example, Dr. Edwards offers a 3-month summer internship program designed for graduate nurses. This initiative helps the nurses to develop skills essential for competitive grantsmanship, examine multiple issues in the design and evaluation of intervention programs, develop strategic links with decision-makers, and explore innovative approaches to research uptake. Six nurses from four provinces participated in the first internship in 2001. The number doubled in 2002, with 13 nurses from five provinces joining the program. A distance-education option is now available for nurses from the Maritime provinces. Site visits to decision-maker partners, panel presentations by research funders, dialogue and debate sessions with invited speakers, and work-in-progress sessions are highlights of the internship. The internship includes the opportunity to take an advanced-level graduate course for credit (Multiple Interventions for Community Health). This has been an appealing option for nurses considering PhD studies. Experienced researchers provide guidance and mentorship as interns develop their own research projects and evaluation initiatives. Working alongside the Chair, postdoctoral fellows participate in the internship and have opportunities to develop leading-edge research projects with regional, provincial, and national decision-makers. Fellows hone their grantsmanship skills as they expand their networks for collaborative and interdisciplinary research.

Dr. DiCenso's Chair offers three bursaries annually to students in Canada who enter a master's or PhD program with the intent of researching an APN-related issue. These students also have access to travel funds to meet with decision-maker partners and to pilot funds for preliminary thesis-related work. They are required to complete an interdisciplinary research-methods course, courses on the philosophical basis of nursing research and the theoretical basis of nursing practice, and a course on research issues specific to the introduction and evaluation of APN roles. Their thesis topic must be determined collaboratively with a decision-maker partner and must be guided by a multidisciplinary thesis committee. Students also participate in research and policy internships and biweekly student seminars. To become skilled in summarizing research findings for their nursing colleagues in a reader-friendly manner, students write commentaries for the journal *Evidence-Based Nursing*. Dr. DiCenso's Chair provides 3 years of funding for a junior faculty member who spends this time attempting to secure external funding as a postdoctoral fellow.

Through Dr. Linda O'Brien-Pallas's Chair, health policy-makers, planners, and nurses wishing to develop expertise in the planning and management of nursing health human resources and large databases may participate in applied research apprenticeships up to 6 months in duration. Apprentices document specific learning objectives together with their employers. Upon completion of the apprenticeship, they will be familiar with nursing health human resources issues, basic research methods, and analytic techniques, and will be able to integrate this knowledge into their own work. Doctoral and post-doctoral fellows participate in a leading-edge, multidisciplinary research environment to develop advanced research skills in planning (micro- and macro-level modelling) and management of human resources. Fellows learn to manage large administrative databases and develop linkage and exchange skills with provincial and national policy and management decision-makers. Master's students participate as research assistants. A CHSRF career reorientation award scientist has studied with the Chair holder. The Chair also funds a junior faculty member. A highly successful initiative, the Dorothy M. Wylie Nursing Leadership Institute builds nursing leadership capacity by nurturing aspirant nurse leaders. Participants register as a dyad, with an established leader and a novice leader attending an intensive 5-day residential session and follow-up weekend together. Dyads develop, implement, and assess a home-based project for their sponsoring organization.

Dr. Lander's Chair offers support and mentoring for graduate students, junior researchers, and practising nurses who are interested in

applied nursing research and in learning how to transfer research knowledge. The research focus can be broad but is typically in the area of pain or pain management. Assistance is given in planning and developing careers in research. Program objectives include: building capacity in nursing research, increasing the amount of applied nursing research conducted in Canada, and building relationships with health authorities and policy-makers.

Dr. Degner's Chair in Nursing Care is focused on the development of new knowledge and transfer of existing knowledge to improve outcomes for patients with cancer and their families. A second concentration of the program is cancer prevention. Students in the Master of Nursing Program, with a focus on oncology, are linked with a decision-maker partner and take a course in evidence-based practice to ensure that their thesis project is relevant to the health-care setting. The new Joint PhD Program in Cancer Control, proposed to the University of Manitoba by the Faculty of Nursing and the Department of Community Health Sciences, will provide doctoral training for nurses who wish to become independent investigators in cancer control. Research supervision and funding support for student projects are provided by members of the Cancer Nursing Research Group, with its five investigators in the Faculty of Nursing and other investigators from a variety of disciplines. These studies are conducted out of a research laboratory at the St. Boniface Hospital Research Centre. In addition, a new national program to promote knowledge transfer by nurses in cancer agencies is being mounted with resources from the Chair.

In addition to the CHSRF/CIHR Nursing Chairs, the CHSRF/CIHR Health Services Chairs are working closely with the nursing community and offering learning opportunities of relevance to nurses. These are:

Dr. Pat Armstrong, York University. Women and Health Services: Policies and Politics

Dr. Peter Coyte, University of Toronto. Health Care Settings and Canadians: A Program of Research, Education and Linkage

Dr. Jean-Louis Denis, Université de Montréal. Transformations et Gouverne des Organisations de Santé [Transformation and Governance of Health Care Organizations]

Dr. Paula Goering, Centre for Addiction and Mental Health. Generating and Disseminating Best Practices in Mental Health and Addictions

Dr. Réjean Landry, Université Laval. *Fostering the Dissemination and Uptake of Health Services Research Through the Promotion of Efficient Linkages and Exchanges Between Researchers and Decision Makers*

Dr. Louise Potvin, Université de Montréal. *Approches communautaires et inégalités de santé [Community Approaches to Inequities in Health Care]*

Dr. Ingrid Sketris, Dalhousie University. *Developing and Applying Drug Use Management Strategies and Policies for Nova Scotia's Provincial Drug Programs: A Partnership of Researchers, Health Care Professionals, Consumers and Government.*

The potential for these Nursing and Health Services Chairs to make a difference will be enhanced with the addition of Regional Training Centres (funded by CHSRF), the recently announced CIHR training initiatives, and Aboriginal Capacity for Applied Developmental Research and Evaluation (ACADRE) training centres. These training centres have been funded to prepare the next generation of health researchers and to build a national culture of creativity, innovation, and transdisciplinary health research. Funding of the centres provides for the development and dissemination of educational materials, stipends for trainees, and travel of trainees and mentors to training locations. Many of the centres transcend the traditional education of students in one university, one discipline, or one department. Student learning is facilitated through exposure to relevant courses at a variety of universities using distance technology, exposure to faculty from a wide variety of disciplines such as the social sciences, and close collaboration with decision-maker partners to formulate relevant research questions to inform policy-making and health-care delivery. Several of the Nursing and Health Services Chairs are directly involved with the training centres, as shown in Appendix 2.

For those who may be contemplating graduate education or may be seeking to participate actively on research teams (either as a researcher or as a decision-maker partner), the opportunities for both financial support and quality mentoring are perhaps the best they have ever been. The substantial outlay of resources for these initiatives represents a real commitment to prepare the next generation of researchers for the health and health-care challenges that lie ahead.

Appendix 1 <i>Learning Opportunities and Financial Support Available Through Nursing Chairs</i>					
Learning Opportunities	Nancy Edwards	Linda O'Brien-Pallas	Alba DiCenso	Lesley Degner	Janice Lander
Web site	http://aix1.uottawa.ca/~nedwards	http://www.hhr.utoronto.ca			http://www.centreknowledge-transfer.ca
Post-doctoral fellowships	X	X			X
Research or policy internships	Summer research internship	Applied research apprenticeship	Research and policy internships		Internship with a local or national decision-maker partner
Financial support for master's or PhD studies	Graduate research assistantships for PhD students		Bursaries for master's and PhD students	Tuition support for 1st-year master's and PhD students	Bridge support for master's and PhD students
Research fellowship	Gerontology fellowship with Sisters of Charity of Ottawa Health Services				
Junior faculty position	X	X	X	X	X (Career Reorientation Award)

Graduate research assistantships	X	X		X	X
New graduate courses	<p>The Design of Multiple Interventions for Community Health (NSG 6115)</p> <p>Population Health Interventions* (POP 8930)</p> <p>Population Health Policy practicum* (POP 8940)</p>	Health Human Resource Modelling (under development)	<p>Research Issues Specific to the Introduction and Evaluation of APN Roles (CHS-NUR 706)</p> <p>Evidence-Based Health Care (Introductory Level) (CHS-NUR 704)</p> <p>Evidence-Based Health Care (Advanced Level) (CHS-NUR 705)</p>	Evidence-Based Nursing Practice (49.708)	Courses offered through Centre for Knowledge Transfer
* Available only for students enrolled in the Population Health PhD Program.					

Appendix 2 <i>Recently Funded CHSRF, CIHR, and ACADRE Training Centres With CHSRF/CIHR Nursing or Health Services Chairs Acting as Principal Investigators or Co-investigators</i>		
Training Centre (Funder), Participating Universities, and Contact Information	Goal of Centre	Participating CHSRF/CIHR Nursing and Health Services Chairs
<p>Ontario Training Centre for Health Services and Policy Research (CHSRF/CIHR)</p> <p>McMaster University, University of Toronto, Lakehead University, Laurentian University, University of Ottawa, York University</p> <p>Vonau@mcmaster.ca</p>	<p>To increase capacity in health-services and policy research through transdisciplinary training of graduate students, faculty, postdoctoral fellows, and managers and staff in health and health-care organizations; to provide access to learning experiences that cut across universities, faculties, disciplines, departments, and existing graduate programs; and to include decision-maker partners in program and curriculum planning, teaching, identification of students' research questions, and provision of field placements</p>	<p>Alba DiCenso Peter Coyte Pat Armstrong Nancy Edwards Linda Pallas-O'Brien Paula Goering</p>
<p>Atlantic Regional Training Centre in Applied Health Services (CHSRF)</p> <p>University of New Brunswick, Memorial University of Newfoundland, Dalhousie University</p> <p>ARTC@UNB.ca</p>	<p>Master's degree and future PhD to develop a critical mass of health-services researchers who conduct applied research throughout Atlantic Canada, are trained in interdisciplinary methodologies, and can communicate research to decision-makers so that it is used in policy development</p>	<p>Ingrid Sketris</p>
<p>FERRASI (CHSRF)</p> <p>Université de Montréal, McGill University, Université Laval</p> <p>Danielle.damour@umontreal.ca</p>	<p>To develop knowledge in nursing-services administration through the building of research capacity; to contribute to knowledge transfer to scientific and practice communities. This will be accomplished through: interdisciplinary doctoral education in nursing administration, financial support to doctoral and master's students, and research residencies in organizations.</p>	<p>Linda O'Brien-Pallas</p>

<p>National Centre for Knowledge Transfer (CHSRF)</p> <p>University of Alberta, University of Manitoba, University of Saskatchewan</p> <p>Janice.lander@ualberta.ca</p> <p>Www.nursing.ualberta.ca/knowledgetransfer</p>	<p>To contribute to improved transfer of knowledge for the betterment of health policy and health care by: (1) training health researchers (including student researchers) in knowledge transfer, (2) educating scholars in the field of knowledge transfer in order to build capacity, (3) sponsoring the training of health-care managers and professionals in knowledge transfer and in the promotion of research-based decision-making, and (4) engaging decision-makers in the knowledge-transfer process in order to maximize the policy relevance of training and scholarship</p>	<p>Janice Lander Lesley Degner Réjean Landry</p>
<p>Community Partnerships Research: Bridging Research to Practice (CIHR)</p> <p>University of British Columbia, University of Victoria, Simon Fraser University, University of Calgary, University of Alberta, University of Ottawa.</p> <p>pchr@interchange.ubc.ca</p>	<p>To provide research training in an integrated transdisciplinary community partnership approach that links research to policy and practice; to develop capacity of community practitioners and university researchers to engage in community partnership research that contributes to sustained partnerships; to educate researchers, policy-makers, and community members to create evidence for best practices; to develop and disseminate curriculum material for use regionally, nationally, and internationally</p>	<p>Nancy Edwards</p>

Appendix 2 (cont'd)		
Training Centre (Funder), Participating Universities, and Contact Information	Goal of Centre	Participating CHSRF/ CIHR Nursing and Health Services Chairs
<p>Health Care, Technology and Place (CIHR)</p> <p>University of Toronto, University of Calgary, Queen's University, McGill University, Université de Montréal, Glasgow University, University of Auckland</p> <p>p.mckeever@utoronto.ca peter.coyte@utoronto.ca</p>	<p>To prepare researchers at doctoral and postdoctoral levels to understand, explain, and improve health outcomes associated with geographically dispersed technologically mediated health care</p>	<p>Peter Coyte Linda O'Brien-Pallas</p>
<p>Interdisciplinary Training in Analysis and Evaluation of Health Interventions (AnÉIS)</p> <p>Université de Montréal (CIHR, Fonds de la recherche en santé du Québec), Université de Montréal</p> <p>Nicole Leduc, Jean-Marc Brodeur, and Paul Lamarche</p> <p>Nicole.Leduc@umontreal.ca</p>	<p>To increase capacity in evaluative research and knowledge transfer, through (1) partnerships with social, biomedical, and public-health doctoral programs in order to interest doctoral and post-doctoral students from diverse disciplines in the evaluation of health interventions; (2) partnerships with research centres and practice settings, with a view to exposing students to relevant and salient research problems; (3) interdisciplinary curriculum in evaluation, knowledge transfer, and ethics</p>	<p>Jean-Louis Denis Louise Potvin</p>

<p>ACADRE (CIHR) CIET International University of Ottawa Sharmila Mhatre</p>	<p>To support aboriginal researchers and researchers working with aboriginal communities</p>	<p>Nancy Edwards</p>
<p>Interdisciplinary Training in Primary Health Care Research (CIHR) University of Western Ontario, Dalhousie University, McMaster University ITPHCR@uwo.ca</p>	<p>To improve the evidence base for primary health care by building a critical mass of skilled independent researchers through both student opportunities and faculty development; to increase the interdisciplinary focus of primary health-care research</p>	<p>Alba DiCenso</p>
<p><i>Note.</i> Information about additional CHRSE, CIHR, or ACADRE training centres may be obtained from www.chsrf.ca or www.cihr.ca Other investigators from various universities are involved with each of these training centres.</p>		