FINAL REPORT
DECEMBER 1996 - NOVEMBER 2001

NURSING EFFECTIVENESS, UTILIZATION AND OUTCOMES RESEARCH UNIT

A collaborative project of the University of Toronto, Faculty of Nursing & McMaster University, School of Nursing
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A MESSAGE FROM THE CO-PRINCIPAL INVESTIGATORS

The Nursing Effectiveness, Utilization & Outcomes Research Unit (NRU) has contributed a significant body of research evidence in the past five years. The findings have been produced by a multidisciplinary network of researchers and have had an impact on clinical service, education, and health policy. The program of research has had to be responsive to the changing needs of the health care system and the challenges to provide evidence to inform decisions. Researchers have provided background analysis and information for key policy documents such as Good Nursing, Good Health: An Investment for the 21st Century (Nursing Task Force, 1999) and Commitment and Care: The Benefits of a Healthy Workplace for Nurses, Their Patients and the System, the health workplace document published in 2001. In addition, unit researchers have played an important role in the training of new researchers and mentoring faculty. Several students have spent extended periods of time in the two unit sites undergoing training, and one faculty member has been supported for career reorientation for research in health human resources.

The understanding of the composition and impact of Ontario’s large nursing workforce is complex. However, as a result of the program of research, there is a greater understanding of the workforce in the areas of planning (policy), production (education), and management (health systems) (Hall, 1993). Each one of these areas of study has resulted in evidence to allow for more informed decision-making. Results have informed many critical areas such as the impact of restructuring on efficiency, effectiveness, and job satisfaction; the impact of skill mix on health outcomes; the efficient and effective use of nurse practitioners; and the importance of investment in healthy workplaces. The NRU staff and researchers have developed and tested a state of the art framework for modelling human resources that is currently being tested for nursing but will be used for integrated human resource planning in the future. This framework has been selected by the Canadian Institute for Health Information to guide their activities related to human resource planning. Researchers’ expertise have underpinned key policy initiatives such as the nursing report card and the development and validation of a key set of indicators for understanding nursings’ contribution to the health of the population. Key audiences for the research findings of the NRU include managers and administrators, front line staff, policy-makers from professional associations and government, as well as other researchers.

Dissemination strategies are vital if research is to be used in a timely fashion. The unit employs a variety of communication strategies to reach a wide range of audiences with diverse needs, interests, and communication styles. For example, the NRU was the originator of the “Fact Sheet” – a quick, one page overview of current research findings. The information produced by the researchers in the unit continues to be relevant and the network of researchers
are working diligently to meet the continuous need for information to inform decision-making and improve the health of Ontarians and others. Researchers from the NRU are selected to participate on provincial, national, and international panels because of their expert knowledge in the core content areas addressed in the unit mandate.

Linda O’Brien-Pallas, RN, PhD
University of Toronto Site

&

Andrea Baumann, RN, PhD
McMaster University Site
SUMMARY

From 1991 to 1996 Drs. Linda O’Brien-Pallas and Andrea Baumann co-directed the NRU’s predecessor, the Quality of Nursing Worklife Research Unit (QNWRU), also funded by the Ontario Ministry of Health and situated at both the University of Toronto and McMaster University. The mandate of the QNWRU was to promote, foster, and conduct multidisciplinary research in order to expand the understanding of those factors that influence the quality of worklife for nurses.

In 1996 the mandate of the NRU expanded beyond that of the Quality of Nursing Worklife Research Unit program to include the development, implementation, and dissemination of research that focuses on the design, management, utilization, outcomes, and provision of nursing and allied health services. During the period 1996 to 2001, the NRU developed closer relationships with policy and decision-makers in the Ontario Ministry of Health and Long-Term Care (MOHLTC) and other key stakeholder groups. The co-investigators were consulted by individuals and groups representing a variety of health care related issues and contributed to the development of key documents such as Good Nursing, Good Health: An Investment for the 21st Century (Nursing Task Force, 1999).

Research was conducted in response to consumer and stakeholder needs as well as to priorities identified by the Provincial Chief Nursing Officer. In addition, several key documents including the Ministry of Health Business Plan (1996), the Provincial Coordinating Committee on Community and Academic Health Science Centre Relations (Subcommittee on Primary Health Care, 1996), and The Institute of Medicine (1996) helped shape the research agenda. The multidisciplinary team of researchers has increased to include seven universities across Ontario.

From the inception of the NRU in December 1996 until November 2001, 130 research projects were conducted. Unit researchers were successful in being awarded over $50,000,000 from a variety of funding sources ranging from regional to international levels. The projects are summarized in Appendix B; some funding agencies included:

- **International Funding**: National Institute for Nursing Research & National Institutes for Health and School of Nursing, Queensland University of Technology

- **National Funding**: Social Sciences & Humanities Research Council, National Health Research Development Program, Canadian International Development Agency, National Science and Engineering Research Council, Alzheimer Society of Canada, Canadian Health Services Research Foundation, Canadian Institutes of Health Research, Kidney Foundation of Canada, Health Canada, Canadian Institute for Health Information, National Federation of Nursing Unions

• Regional/Institutional Funding: University of Windsor Research Grant for Women, Health Care Corporation of St. John’s, Sunnybrook and Women’s College Health Sciences Centre, Simcoe County CCAC, Hospital for Sick Children Foundation, Metro Toronto Community Health Centres, Hamilton-Wentworth Department of Social and Public Health Services, Sigma Theta Tau, Lamda Pi Chapter, Markham Stouffville Hospital, Institute for Work and Health, Community Care Access Centre of Halton, System Linked Research Unit on Health and Social Services Utilization, Ryerson Polytechnical University, University Health Network, Change Foundation, Institute for Clinical and Evaluative Sciences, Centre for Leadership in Learning, City of Hamilton, Home Care Programme for Metropolitan Toronto and Humber Memorial & Etobicoke General Hospitals, Ivy Foundation

The dissemination of the researchers’ work has been available in a number of ways. Unit researchers have had 286 publications; an additional 50 written works are in press and 8 more have been submitted for publication. Eleven new Working Papers, three Health Human Resource papers, and 34 Fact Sheets have also been written to disseminate researchers’ recent work on nursing issues. They have been requested by individuals, educational institutions, health units, hospitals, associations, health services, business organizations, and other professions in Ontario, Canada, and internationally.

Since 1996, the NRU has continued to host a number of local, national, and international visitors to the McMaster and University of Toronto sites. From 1996 to 2001 delegates from across Canada (e.g., Nova Scotia, Quebec) as well as from Finland, Japan, Australia, England, Wales, Sweden, Germany, and United States have consulted or visited the Unit.
**OUR MISSION**
To develop, conduct, and disseminate research that focuses on the:

- design
- management
- utilization
- outcomes
- provision

...... of nursing.

**OUR PURPOSE**

Overall Purpose

The Nursing Effectiveness, Utilization and Outcomes Research Unit received initial funding from the MOHLTC for five years: 1996-2001. The overall purpose of the unit was to study the planning\(^1\), production\(^2\), and management\(^3\) (Hall, 1993) of nursing human resources with the goal of developing strategies to meet current and future health needs. Unit researchers:

1. Investigated the appropriate supply, distribution, and deployment of nurses and how to enable nurses to meet their responsibilities as a result of restructuring in the health care system.

   This purpose examined:
   - nursing human resources planning and modelling
   - nursing skill requirements
   - need and preparation required for advanced nursing practice
   - strategies to reduce system barriers to evidence-based practice
   - the effect of technological advances on delivery of nursing care
   - access and barriers to nursing services in the community

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\(^1\) Planning: The process of estimating the number of health personnel and the kind of knowledge, skills, and attitudes required to achieve predetermined health targets.

\(^2\) Production: Assessing the quantity and quality of existing educational programs including curricula, physical facilities, faculty, and enrolment.

\(^3\) Management: Mobilization, motivation, development, and fulfilment of human beings in and through work. Concerned with working environments, staffing patterns, and incentives.
2. Determined methods to maintain quality while realizing funding efficiencies in the health care system.

This purpose examined:
• health outcomes related to alternative providers and multidisciplinary practice
• the effects of nursing staff mix (RN, RPN) and numbers on patient care outcomes
• the appropriate use and role of unregulated health care workers
• factors which facilitate an efficient and cost-effective nursing service
• the effects of downsizing of medical schools and reduction in residents on nursing

**IMPACT OF RESEARCH ON POLICY, PRACTICE, & MANAGEMENT DECISIONS**

The following is a sample of some recently completed research projects by NRU researchers that had impact on policy, practice, and/or management decisions. The projects are categorized by the two NRU purposes. While certain studies are highlighted here to illustrate the link between research and policy, it does not reduce the significance of the work being done on many other projects. A complete list of studies by NRU researchers is found in Appendix B.

**Purpose 1:** To investigate the appropriate supply, distribution, and deployment of nurses and how to enable nurses to meet their responsibilities as a result of restructuring in the health care system.

- Evaluated and established the feasibility of a long-term care resource centre. The centre was piloted for a year and was positively evaluated by users. **Brazil, Royle (Co-PIs), & Montemuro**

- A first ever international study examining the impact of the status of nursing and midwifery world-wide provided a baseline understanding of the state of nursing and midwifery services throughout the 190 Member States of the World Health Organization. Findings suggested that there is a critical need to understand and support nurses and midwives in influencing policy and legislation, as well as improving their work conditions. **O’Brien-Pallas, Hirschfeld, Baumann, Shamian, Bajnok, Adams, Isaacs, Land, Salvage, Bisch, Miller, Islam, & Luba**

- A collaborative HHR program was implemented to enhance nursing in the area of education, regulatory framework, and program development (with Aga Khan University). **Baumann, French (Co-PIs), & Amarsi**
• Developed a model for the delivery of after hours primary health care in Metro Toronto Community Health Centres (CHC) with recommendations at the individual CHC level and metro-wide CHC level. DiCenso (PI), Baumann, Blythe, Haines & Silverman

• Evaluated the most effective school-based physical activity interventions and recommended public health practice to provide guidance to public health managers/administrators and front-line staff with respect to the provision of services. Dobbins (PI), Beyers, deWolfe, Feldman, Lockett, Michel, Micucci, Thomas, Vohra, & Underwood

• Developed a state of the art conceptual model and conducted an initial assessment of the supply and utilization based aspects of this model for nursing in Ontario. O'Brien-Pallas, Tomblin Murphy, Birch, & Alksnis

• Determined the effectiveness of the use of CNO’s Participative Resolution Programme to deal with complaints against nurses. It was found that both nurses and those who filed the complaint were satisfied with the process and outcomes, and that approximately 33% of the complaints were actually system problems. French (PI), Eyles, Walters, & Beardwood

• Results of an evaluation of a new patient care delivery model provided useful information about the effectiveness of a model for organizing nursing care and scheduling nursing personnel to improve the continuity of nursing care on inpatient units in acute care hospitals. The study also provided data on the reliability and validity of a nursing sensitive outcome measure that the research team has developed. Irvine, Sidani, & McGillis Hall

• A nursing sensitive outcomes literature synthesis concluded with recommendations that a nursing job satisfaction pilot study be conducted in Ontario, using multiple measures to determine the “best” ongoing measure for nursing job satisfaction. The findings were disseminated to researchers and policy makers. Irvine (PI), Sidani, McGillis Hall, Watt-Watson, Mallette, & Laschinger

• NRU research staff developed two papers which were submitted to the Nursing Task Force and have been widely distributed in the Province of Ontario and elsewhere. O'Brien-Pallas & Baumann

• Province Wide Nursing Project Research Centre report and recommendations to the MOH, resulted in transfer of money to RNAO for clinical guideline development and implementation. Royle (PI), Ciliska, Baumann, Deber, Noesgaard, Boblin-Cummings, Barnsley, Hayward, Mitchell, Eagle, & Underwood
• Data collected was used to assess system capacity to produce required number of future nurses. Faculty retirements over the next 5-10 years will influence the capacity of the Ontario system to expand training capacity. **Williams & O'Brien-Pallas**

• Evidence from study that examined factors that influence variability in nursing workload in community nursing influenced policy-makers to move to baccalaureate entry to practice. **O'Brien-Pallas (PI), Irvine, Murray & Cockerill**

Purpose 2: To determine methods to maintain quality while realizing funding efficiencies in the health care system.

• Policy synthesis provided more than four dozen recommendations to policy makers on how to improve the quality of the working environment and the health of the nursing workforce (and hence, potentially, improve patient outcomes). **Baumann, O'Brien-Pallas (Co-PIs), Armstrong-Stassen, Blythe, Bourbonnais, Cameron, Irvine Doran, Kerr, McGillis Hall, Vezina, Butt, & Ryan**

• First international comparison of work issues of nurses highlighted the universality of common workforce issues facing nurses and provided excellent direction for policy developments. **Aiken, Sochalski, Silber (Co-PIs), Shamian, Anderson, Tu, Giovannetti, Clarke, Rafferty, Hunt, & Busse**

• A study that investigated nursing work environments using Rosabeth Moss Kanter’s organizational empowerment theory assisted in the understanding of the acquisition and use of power by nurses to better influence the health care system and control of nursing work. **Laschinger (PI), Finegan, & Shamian**

• Balance Scorecard for Ontario Hospitals report provided a foundation on which to develop more comprehensive quality measurement programs that can serve quality improvement and public accountability needs. **Baker, Anderson, McKillop, Murray, & Pink (PIs)**

• Findings from a study examining nursing staff mix models are expected to inform the government, hospital administrators, and nurse leaders of the impact that organizational change and staff mix changes have on specific outcomes for the patient, the care giver, and the teaching hospital environment in Ontario. Results were an important consideration in the deliberations of the Expert Panel on Nursing and Health Outcomes, established by the Ontario MOHLTC. **McGillis Hall, Irvine (Co-PIs), Baker, Pink, Leatt, Sidani, O'Brien-Pallas, & Donner**
• Nursing Report 2001 introduced and structured a nursing perspective within the Hospital Report, identified and tested a set of measurable indicators for nursing in Ontario. **McGillis Hall (PI), Irvine Doran, Laschinger, Mallette, & O’Brien-Pallas**

• New TB disease management program at St. Michael’s Hospital (SMH), Toronto was created in collaboration with community and hospital partners on July 1, 1999. Oh, Edelson, Yang (Co-PIs), Petryshen, Gaudet, Gould, Pollok, Avendano, & Labreton

• A five year analysis of the financial performance and condition of Ontario hospitals is pertinent to the theory and practice of hospital funding, scorecard and report card development, accounting and audit practices, and ICES research that incorporates MIS financial or statistical data. **Pink & McKillop** (Co-PIs)

• Developed recommendations for job strain and organizational interventions aimed at preventing or reducing work-related risk factors that can be shared with stakeholders in order to improve the worklife and health of Ontario RNs. **Shamian, O’Brien-Pallas (Co-PIs), Kerr, Koehoorn, Thomson, & Alksnis**

• Determined that the Quick Response Initiative was equally effective to conventional Emergency Department care in terms of health status, safety, and high satisfaction with health care services. The shift in care from acute hospital to community services did not lead to a reduction in overall health care costs. **Weir (PI), Thompson, Walsh, McColl, Browne, Byrne, Roberts, Gafni, & Merrill**

**HHR Model**

Historically, determining the appropriate supply and mix of nursing resources has been based on a framework in which the required number of health care providers is estimated and compared with the estimated supply of providers. This reliance on primarily supply and utilization based approaches have led to cycles of over and under supply in the physician, nursing, and other health provider workforces.

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The HHR Conceptual Framework\(^5\) (Figure 1) is a dynamic system-based framework from which to evaluate an integrated health human resource planning process.

![Health Human Resources Conceptual Framework](image)

This model incorporates each of the three methodological approaches for planning and forecasting HHR described by Birch et al.\(^6\) but places these approaches in the context of assessment of needs and outcomes of service provision. This model considers:

- population characteristics related to health levels and risks (needs-based factors),
- service utilization patterns, nurse deployment patterns, and others who provide similar or the same services (utilization-based),


• the economic, social, contextual, and political factors that can influence health spending (effective demand-based), and
• the population clinical and health status, provider, and system outcomes resulting from the different types of nurse and other health provider utilization.

Simulations of the health system are used to provide needs-based estimates that are aimed at optimizing outcomes.\(^7\)\(^,\)\(^8\) The practical applications of the model are currently being tested by members of the research team.\(^5\)

**Research Unit Description**

The NRU is a collaborative project of the University of Toronto, Faculty of Nursing and McMaster University, School of Nursing. The NRU is directed by two Principal Investigators (Drs. Linda O’Brien-Pallas and Andrea Baumann). Over the course of the first five years, the number of Co-Investigators has continued to grow so that a total of 40 are involved in various research projects and have contributed to the mandate of the NRU. While each has particular expertise and interests within their respective fields, most of the research activities are conducted within a multidisciplinary framework. Therefore, the research team comprises members from nursing, business, labour studies, economics, health care policy, engineering, sociology, and anthropology. The NRU has been recognized provincially, nationally, and internationally for its comprehensive team approach to problem identification and resolution. The unit has also expanded to encompass research from five other Ontario universities (University of Western Ontario, York University, University of Windsor, Ryerson Polytechnic University, and the University of Saskatchewan) as well as the Executive Director of Nursing Policy with the Federal Government.

**Areas of Expertise**

The NRU comprises a multi-disciplinary group of researchers with diverse areas of expertise, such as:

- HHR Development - planning, production, and management
- Decision-making and Problem Solving
- Health Care Teams
- Nursing Costing
- Nurse Practitioners
- Public Health, Community-Based Interventions
- Nursing Informatics
- Workload Redesign


NRU Organization

The NRU operates with the assistance of an External Advisory Committee. The members examine the extent to which the NRU has been able to meet its mandate and monitor the overall functioning of the unit in terms of goal achievement. In addition, members provide advice on operational issues and promote the mandate of the NRU in the nursing community. The membership has changed over the course of the last five years but always reflects the diversity of the interested stakeholder groups.

Members of the External Advisory Committee

Andrea Baumann (Co-Chair)
Professor & Associate Dean Health Sciences (Nursing); Co-Principal Investigator, NRU
McMaster University
December 1996 - present

Lesley Bell
Chief Executive Officer, Ontario Nurses Association
December 1996 - present

Linda Beyer
Nurse Practitioner, Hamilton Urban Care Community Health Centre
December 1996 - present

Stephen Birch
Professor & Director, Centre for Health Economics and Policy Analysis, McMaster University
December 1996 - present

Floreen Cleary
Executive Director, Victorian Order of Nurses
December 1996 - September 1998

Anne Coghlan
Executive Director, College of Nurses of Ontario
July 2000 - present

Jennifer Dziuba
Graduate Student, McMaster University
August 2001 - present

Joanne Young Evans
Executive Director, Registered Practical Nurses Association of Ontario
February 2001 - present
Vivek Goel
Chair, Department of Health Administration, Faculty of Medicine, University of Toronto
December 1996 - January 2001

Doris Grinspun
Executive Director, Registered Nurses Association of Ontario
December 1996 - present

Hy Eliasoph
Director Hospital Research & Health Policy, Ontario Hospital Association
December 1996 - September 1998

Mary Ellen Jeans
Executive Director, Canadian Nurses Association
December 1996 - January 2001

Kelly Kay
Executive Director, Canadian Practical Nurses Association
February 2001 - present

Linda LaHay
Past President, Registered Practical Nurses Association of Ontario; Co-Chair, Joint Provincial Nursing Committee
December 1996 - January 2000

Peggy Leatt
Professor and Chair, Dept. of Health Administration; Principal Investigator, HMRU, University of Toronto
December 1996 - September 1998

Kathy McGilton
Lecturer and Doctoral Candidate, Faculty of Nursing, University of Toronto
December 1996 - January 2001

David Mowat
Director of Public Health Ministry of Health
December 1996 - September 1998

Linda O’Brien-Pallas (Co-Chair)
Professor & CHSRF/CIHR National Chair, Nursing Human Resources; Co-Principal Investigator, NRU University of Toronto
December 1996 - present

Susan Plewes
Executive Assistant/Health Policy Advisor, Office of the President, Ontario Hospital Association
February 1999 - present

Jean Reader
Chief of Nursing Hospital for Sick Children
December 1996 - January 2000

Margaret Risk
Executive Director College of Nurses of Ontario
December 1996 - July 1999

Shirlee Sharkey
President & Chief Executive Officer, Saint Elizabeth Health Care; President, Registered Nurses Association of Ontario
December 1996 - present
UNIT PARTNERSHIPS

Collaboration has been a fundamental principle in the approach to research at the NRU. Partnerships have been developed with individuals and organizations that reflect a variety of healthcare and HHR issues. Examples include the Centre for Health Economics and Policy Analysis, Institute for Clinical Evaluative Sciences, Hospital Management Research Unit, and Health Information Research Unit. Partnerships have been expanded to include the Ontario Hospital Association, Canadian Institute for Health Information, Joint Policy and Planning Committee, Psychiatric Patient Advocate Office, Workplace Safety and Insurance Board, and the World Health Organization. Through these partnerships NRU researchers are in a position to examine cost-effective outcomes through the use of the best knowledge, skills, and technologies available across and within professions and settings.

ORGANIZATION AT THE UNIVERSITY OF TORONTO SITE

The University of Toronto site is directed by Dr. Linda O’Brien-Pallas. Dr. O’Brien-Pallas is a Professor at the Faculty of Nursing, University of Toronto. She is cross appointed to the Department of Health Policy, Management, and Evaluation at the Faculty of Medicine. Dr. O’Brien-Pallas is the Canadian Health Services Research Foundation and Canadian Institutes of Health Research Chair in Nursing Human Resources. Linda sits as a nominated member on the Canadian Nursing Advisory Committee. She is a member of the Board of Directors of the Registered Nurses Association of Ontario and the Canadian Nurses Association. Linda recently served on Ontario’s Expert Panel on Physician Human Resource Planning Committee, and co-chaired its modeling sub-committee. Dr. O’Brien-Pallas has served on local, provincial, national, and international committees to examine approaches to health human resources prediction and modeling and to develop standards for practice, next generation approaches to workload measurement, and clinical and educational databases for planning and evaluating nursing resources. Her research interests include nursing health human resources, workload measurement and patient classification systems, factors influencing variability in nursing resource use and patient outcomes, and the quality of nursing worklife. Her research has crossed all sectors of the health care system and she has published widely in her areas of research.
From 1996-2001, the University of Toronto site comprised the following personnel:

- Chris Alksnis - Senior Research Associate (2000 - present)
- Debra Barrath - Research Officer (2001 - present)
- Sandra Belfry - Research Assistant (1999 - 2000)
- Shirliana Bruce - Research Officer (2000 - present)
- Deanna Cape - Research Officer (2001 - present)
- Gerarda Darlington - Senior Research Associate (1999 - 2000)
- Trudy Freeman - Doctoral Fellow (2001)
- Jackie Gerlach - Senior Research Associate (1997 - 1998)
- Jana Lait - Research Officer (2001 - present)
- Manon Lemonde - CHSRF Career Reorientation Award recipient (2001 - present)
- Marcia Luba - Research Officer (1996 - present)
- Kevin McCarthy - Summer Studentship Intern (1999)
- Riita Meretoja - Visiting PhD Student (Finland) (1999)
- Raquel Meyer - Research Officer (2000 - present)
- Angela Pagniello - Research Officer (2000 - present)
- Elisabeth Peereboom - Research Projects Coordinator (1996 - present)
- Anagaile Soriano - Research Apprentice (2001 - present)
- Donna Thomson - Doctoral Fellow (1998 - present)
- Gail Tomblin Murphy - Doctoral Fellow (1998 - present)
- Lenore Wilson - Secretary (2000 - present)

**Organization at the McMaster University Site**

The McMaster University site is under the leadership of Dr. Andrea Baumann. Dr. Baumann is the Associate Dean of Health Sciences (Nursing) and Professor in the School of Nursing. She is the Director of a World Health Organization Collaborating Centre in Primary
Health Care and Nursing Education, as well as Vice President Research, Canadian Association of University Schools of Nursing. In addition to her current roles, she has previously held several leadership positions including the Chair of a hospital Board of Trustees and as a member of the Canadian Institutes of Health Research, Interim Governing Council. Dr. Baumann’s research interests include HHR planning, production, and management; health systems; clinical decision-making; and quality of nursing work life.

From 1996-2001, the McMaster University site comprised the following personnel:

Mohamed Alam Edine - PhD Student (2000 - present)
Jennifer Blythe - Senior Scientist and Assistant Professor (1999 - present)
Andrea Brown - Student Intern (2001 - present)
Michelle Butt - Senior Research Associate (1999 - 2001)
Jennifer Dziuba - Studentship Intern (1999 - present)
Jasmine Heighton - Student Intern (2001 - present)
Ann Higgins - Senior Research Associate (2001 - present)
Laurie Kennedy - Research Unit Coordinator (1996 - present)
Mariko Koyama - PhD Student (2001 - present)
Joanne Leeming - Secretary (2000 - present)
Claire Mallette - Senior Research Associate (1996 - 2000)
Elena Oreschina - Research Project Co-ordinator (2001 - present)
Angela Thomas - Student Intern (2001 - present)
Katharine Wadey - Studentship Intern (1999 - present)

**Current NRU Database Holdings**

These databases are held at the NRU, University of Toronto and are managed on workstations that have physical and electronic security features. The databases are updated frequently for use by researchers.
Health Human Resources

- College of Nurses of Ontario registration database (1992-2000)

  Demographic information about Ontario nurses. Includes overall number of RNs and RPNs, their age, educational background, geographic location, employment status (full-time, part-time, casual), and employment position.

- Education data

  The NRU houses nursing education data from both the College and University sectors, from a variety of sources.

College

Ontario Data (practical nursing & nursing programs, unless specified):
  - applicants and confirmations 1996-2000 (Ontario College Application Services)
  - quotas 1989-2001 (Ministry of Training, Colleges Branch)
  - new entrants 1990-2000 (Ministry of Training, Colleges Branch)
  - enrolments 1990-1999 (nursing only) (Ministry of Training, Colleges Branch)

National Data (for diploma, aide/orderly, refresher, psychiatric/mental health, public health, dental, and other nursing programs; Statistics Canada):
  - graduates by province all program types combined 1975-1995
  - diplomas/certificates by province for each program type 1991-1998

University

Ontario Data (1998 data only for BN, Post-RN BN, Master, & Doctoral programs; NRU Entry to Practice Survey on University Nursing Program Capacity, University of Toronto):
  - admissions, enrollment, and graduates
  - faculty rank, credentials, academic upgrading status, tenure status, ages, retirement projections, research activity
  - community placements

National Data (for BN & Post-RN BN combined, Master, & Doctoral programs; Statistics Canada):
  - degrees by institution 1970-1990
  - full-time enrolments by province 1972-1996
  - part-time enrolment by province 1972-1996
  - degree by institution (for BN vs Post-RN BN) 1990-1996
NRU Databases

  
  Self-reported data on the supply and distribution of registered nurses in each province in Canada by age, gender, employment status, level of education, sector of employment, etc. from 1994 to 2000. The RNDB is maintained by the Canadian Institute for Health Information.

Utilization/Demand

  
  Patient level data that includes services requested and services rendered (number and type of visits) by nurses and allied health personnel.

  
  Patient level data for each inpatient stay and each day surgery in Ontario hospitals aggregated to hospital level. The DAD includes diagnosis and procedures.

  
  Financial costs of care in Ontario hospitals (can be aggregated to unit/functional centre level or hospital level). Includes number of patient days (inpatient units) or visits (ambulatory care units) by nurses and allied health personnel, number of patients seen (ambulatory care), and number of beds available/occupied (inpatient). Starting in 1998/1999 skill mix data allows tracking of earned hours by RNs, RPNs, and unregulated care providers by employment status (full-time, part-time, casual).

  
  Costs associated with each patient stay in the seven participating Ontario hospitals. Patient level data that can be aggregated to hospital level or to unit/functional centre level. Includes diagnosis and procedures.

- Long-Term Care Levels of Care database (1993-2001)
  
  Levels of care (A to G) summaries for nursing homes and homes for the aged.
Literature

- Over 5,000 references related to NRU objectives are housed at the NRU and can be searched electronically. The materials include journal articles, reports, books, literature searches, conference proceedings, instruments, and audiovisual material.

THE FUTURE

The redesign and restructuring of Ontario’s healthcare system has placed tremendous pressures on patients and healthcare professionals including nurses. The NRU worked with the province wide Nursing Task Force established by the MOHLTC to prepare a report entitled, *Good Nursing Good Health: An Investment for the 21st Century* which was released in February 1999.

Using the HHR Conceptual Framework (Figure 1), the NRU will support the short and long-term recommendations of the Task Force through an ongoing program of research that will focus on:

- Conducting studies which examine production and management of nursing human resources
- Testing and validating the strength and weaknesses of current HHR modelling approaches using provincial data that meets quality standards; determine strengths and limitation of each approach, and work to develop an integrated approach for nursing HHR
- Defining the current practice demands and resource utilizations of restructured settings in which nurses work
- Conducting a situational analysis to determine the factors which influence nursing and HHR activities in Ontario
- Building computer models of HHR, based on a critical appraisal of the previous activities, that examine the impact of HHR relative to system, care giver, and client outcomes
- Examining the existing educational databases to determine the impact of restructuring changes occurring in the health care system on supply of registrants for practice.
- Examining current databases and make judgements about the content and quality of these databases for use in basic, intermediate, and advanced statistical analyses and simulation modeling exercises; document strengths and weaknesses of each data set for inclusion in modeling activities

The proposed areas of research reflect an expansion of some of the research activities underway at the universities within the original funding framework. The findings and data provided by the NRU will assist the MOHLTC in making policy decisions for necessary changes to HHR practices in Ontario and the development of accountable, fiscally responsible, and quality healthcare delivery.
APPENDIX A

NRU Co-Investigators

The NRU’s 40 Co-Investigators are committed to developing and conducting targeted research within the NRU’s mandate. The Co-Investigators are presented by site.

AT THE UNIVERSITY OF TORONTO:

MICHAEL CARTER, PhD is a Professor at the University of Toronto, Department of Mechanical and Industrial Engineering and is cross appointed to the Department of Computer Science. He received his PhD in Combinatorics and Optimization from the University of Waterloo. He is a member of the editorial board for the Journal of Scheduling and the Journal of Health Care Management Science.

Dr. Carter won the Annual Practice Prize for Operational Research from the Canadian Operational Research Society in 1988, 1992, and 1996. The 1996 award was for his work with John Blake on reducing wait time at the Children’s Hospital of Eastern Ontario, Ottawa. In May 2000, he received the CORS Award of Merit for lifetime contributions to Canadian Operational Research. He is also a recipient of an “Excellence in Teaching” Award from the University of Toronto Student Administrative Council.

Since 1990, his research has focused on healthcare productivity and effectiveness, with over 50 projects in hospitals, home care, and mental health institutions. In May 2002, he will be teaching a one week course in Health Care Quality to hospital administrators, doctors, and nurses with Project Hope in Latvia and Estonia.

RAISA DEBER, PhD is a Professor of Health Policy, in the Department of Management and Evaluation, Faculty of Medicine, University of Toronto.

Born in Toronto, Professor Deber received her PhD in political science from the Massachusetts Institute of Technology. She has lectured and published extensively on Canadian health policy; advised numerous local, provincial, national, and international bodies; and served on editorial boards and review panels.

Professor Deber’s current research centres around Canadian health policy. Projects include definitions of “medical necessity”, examination of specialized services under population-based models, public and private roles in the financing and delivery of health services (with a focus on long-term care), and the study of medical decision-making and issues surrounding patient empowerment.
GAIL DONNER, RN, PhD entered the nursing profession in 1962 after completing studies at the Winnipeg General Hospital School of Nursing. From there she went on to earn undergraduate and graduate nursing degrees at the University of Pennsylvania and New York University, respectively, and then a PhD in adult education from the University of Toronto.

Dr. Donner has held a variety of positions including Chair, Department of Nursing at Ryerson Polytechnical University, formerly Ryerson Polytechnical Institute (1976-82); Executive Director of the RNAO (1984-89); and Director of Nursing Education and Research at the Hospital for Sick Children (1989-92). In July 2003 she will retire from the Faculty of Nursing at the University of Toronto where she has been a Professor. Dr. Donner was Dean of the Faculty from 1999-2001. She is a member of the Joint Centre for Bioethics at the University of Toronto. Dr. Donner is also a principal in Donner & Wheeler Career Development Consultants.

Dr. Donner has held a number of government and community appointments and is a frequently sought after speaker on professional and health care issues.

Her research and consulting interests range from health policy, nursing administration, and professional issues to career planning and development. She has presented numerous papers, seminars, and workshops on a variety of nursing and health care topics. Dr. Donner has been honoured by several organizations for her contributions to nursing and to the community. In 1989, she received the Award of Merit from the RNAO; in 1994, she was named a Woman of Distinction by the YWCA of Metropolitan Toronto; and, in 1997, she was awarded a Salute to the City award for her contribution to Metropolitan Toronto. She is listed in Canadian Who's Who and in Who's Who of Canadian Women.

RUTH GALLOP, RN, PhD is a Professor and Associate Dean (Research) in the Faculty of Nursing and a Professor in the Department of Psychiatry, Faculty of Medicine, University of Toronto. She is a senior researcher in the Division of Society, Women, and Health in the Department of Psychiatry and an Honorary Visiting Professor at the School of Health and Community Studies, De Montfort University, Leicester, England.

Dr. Gallop’s research, clinical, and consultation interests have focused on the nurse-patient relationship with a particular emphasis on patients perceived as difficult to manage and treat. These patients often have diagnoses of personality disorders and often have histories of severe early trauma. She has more than 50 peer-reviewed publications and is currently preparing a text on the link between early trauma and mental disorder. Dr. Gallop serves as a consultant and resource person for the CNO on professional boundary issues and for the development of CNO’s positions on nurse-patient relationships. She has served as an expert witness in many disciplinary and court cases involving alleged violations of professional boundaries.

DIANE IRVINE DORAN, RN, PhD is an Associate Professor in the Faculty of Nursing, University of Toronto and Director of the
Joint MN/MBA Program between the Faculty of Nursing and Joseph Rotman School of Management. She currently holds a Research Scholar award from the Medical Research Council (MRC) and National Health Research Development Program (NHRDP). In 1999, Dr. Irvine Doran was a recipient of the Ontario Premiers Research Excellence Award.

The foci of her research are health care teams, the evaluation of methods for improving quality in nursing practice, and the design and measurement of nursing sensitive patient outcomes. One group of studies evaluates an intervention designed to teach members of multi-disciplinary teams methods for making improvements in clinical practice. A second group of studies measures process and outcome indicators for evaluating the quality of nursing care. A third group of studies evaluates alternative health care provider roles.

Dr. Irvine Doran teaches two graduate courses in the Faculty of Nursing: Management of Nursing Service and The Theoretical Basis and Methodology for Quality Improvement in Nursing Services. Dr. Irvine Doran has published papers on cross-functional teamwork, the outcomes of effective teams, identifying and measuring nursing sensitive outcomes, the evaluation of measures for assessing psychosocial outcomes for women with breast cancer, and methods for improving the quality of nursing care. She has presented papers both nationally and internationally on these same topic areas.

MICKEY KERR, PhD holds appointments as an Assistant Professor in the School of Nursing, Faculty of Health Sciences, at the University of Western Ontario, and as an Adjunct Assistant Professor in the Department of Public Health Sciences, Faculty of Medicine at the University of Toronto. He is also a Scientist in the Workplace Studies group at the Institute for Work & Health in Toronto. His research interests include risk factors for musculoskeletal disorders, the workplace psychosocial environment, stress research, and biological mechanisms for injury. Much of his recent work has been focused on the work environment and health in the health sector.

HEATHER K. SPENCE LASCHINGER, RN, PhD is Professor, Associate Director Nursing Research at the University of Western Ontario, School of Nursing, Faculty of Health Sciences in London, Ontario. She teaches courses in the graduate program related to research methodology and organizational theory. Dr. Laschinger has published and presented papers in the areas of workplace empowerment, nursing and medical education, and health education theory.

Her research interests include workplace empowerment in nursing work settings and more recently, the impact of work conditions on nurses’ health. Since 1992 she has been Principal Investigator of a program of research at the University of Western Ontario’s School of Nursing designed to investigate nursing work environments using Rosabeth Moss Kanter's organizational empowerment theory. Publications of this work have attracted considerable interest from researchers, management, and graduate students from both nursing and other disciplines around the world.
Dr. Laschinger has been involved in the *International Study of Hospital Outcomes* led by Drs Shamian and Aiken. This four country study is designed to link nursing work conditions to patient outcomes. She is Co-Principal Investigator with Dr. Kerr of the Institute of Work and Health on their current project *Monitoring the Health of Nurses in Canada*, which studies the feasibility of establishing an ongoing system to monitor the health of nurses.

For the past three years, Dr. Laschinger has served on the MOHLTC Expert Panel on Nursing and Hospital Outcomes. As a result of her work on patient satisfaction as a nurse sensitive outcome for this project, she has joined a team led by Dr. McGillis Hall to develop a Nursing Report Card for Ontario Hospitals. Currently, Dr. Laschinger is part of an investigative team developing pilot studies to evaluate the feasibility, utility, reliability, and validity of collecting outcomes data that can be linked to nursing resources. She is also a member of the Advisory Group for the OHA Nursing Strategy Project.

**LYNN NAGLE, RN, PhD** is Chief Information Officer for Mount Sinai Hospital, Toronto. Dr. Nagle completed her Bachelor of Nursing at the University of New Brunswick, Master of Science in Medical-Surgical Nursing at the University of Toronto, and PhD in Nursing at the University of Rochester. She received national recognition as a Canadian Nurses Foundation scholar in the completion of her doctoral work. Her nursing experience spans a variety of settings with many clinical populations including pediatrics, community gerontology, intensive care, and medical oncology as a staff nurse, educator, researcher, and administrator. In her current role at Mount Sinai Hospital she has corporate responsibility for information systems and information management to support daily operations, resource utilization management, and strategic planning.

An Assistant Professor in the Faculty of Nursing, University of Toronto, Dr. Nagle teaches a graduate course in Nursing Informatics. She has many publications and paper presentations to her credit and is internationally recognized for her expertise in informatics.

**ELIZABETH PETER, RN, PhD** is an Assistant Professor in the Faculty of Nursing, University of Toronto. She is a member of the Joint Centre for Bioethics. She is also a Collaborator with the Home Care Evaluation and Research Centre.
Her research explores the relevance of feminist ethics in examining ethical issues in home care, such as trust relationships among caregivers and care recipients, the health and well-being of nurses, and the influence of place on the moral agency of nurses.

PATRICIA PETRYSHEN, RN, PhD completed a Master in Nursing and a Doctorate in Epidemiology. Dr. Petryshen is Executive Vice-President, Programs, Hospital Relations, and Chief Nursing Officer at St. Michael’s Hospital, Toronto. As Executive Vice-President, she is responsible for the Inner City Health Program, Trauma and Neurosurgery Program, and Mobility (Musculoskeletal) Program. At the University of Toronto, Dr. Petryshen holds an appointment as Associate Professor in the Faculty of Nursing and a cross-appointment in the Department of Public Health Sciences, Faculty of Medicine.

In 1998, Dr. Petryshen was a Wharton Fellow and attended the Management Program for Nurse Executives at The Wharton School, Institute of Health Economics, University of Pennsylvania. In that same year, she received the Award of Excellence in Nursing Administration from the Faculty of Nursing, University of Toronto, Sigma Theta Tau, Lambda Pi Chapter. She was appointed member of the Ontario Women’s Health Council. Her research interests include the clinical and economic outcomes of patient care. She has published and presented nationally and internationally.

GEORGE H. PINK, PhD is an Associate Professor in the Department of Health Administration at the University of Toronto and an Adjunct Senior Scientist at ICES. Prior to receiving a PhD in Corporate Finance, he spent ten years in health services management, planning, and consultation. He teaches courses in health services accounting and finance in the Master of Health Science (Health Administration) Program and is involved in several research projects including hospital scorecards and report cards, integrated delivery systems, and MIS reporting variations. George serves on numerous hospital and provincial committees, including the Hospital Funding Committee.

DOROTHY PRINGLE, RN, PhD is a Professor of Nursing. She has been at the University of Toronto since 1988, serving as Dean of Nursing from 1988-1999.

Her clinical and research interests are in the care of disabled and impaired older people, both in the community and in institutions, and in the assistance required by family caregivers of older people. She is involved in a number of studies related to the quality of day to day living of older impaired individuals in institutional settings. She is Chair of the Advisory Board of the Institute of Healthy Aging of CIHR.

In the area of administration, she is developing a study on nurses’ retirement and is a member of research teams studying human resource issues in nursing and nurse managers’ span of control. She directs the Nursing and Health Outcomes Project for the Ontario MOHLTC that is developing a set of outcomes that will be systematically collected and abstracted onto administrative databases from all patients in acute, long-term, and
community care systems. She has received funding from the Ontario MOHLTC, Ontario Mental Health Foundation, NHRDP, National Welfare Grants, and numerous foundations. She has published more than 20 articles and book chapters and presented at more than 100 scientific conferences. She has delivered many keynote addresses on topics related to the health care system and nursing's role, health services for the elderly and their family members, and nursing education and research.

JUDITH SHAMIAN, RN, PhD is Executive Director, Nursing Policy, Health Canada; Professor in the Faculty of Nursing, University of Toronto; and Past President of the RNAO. Dr. Shamian obtained her PhD from Case Western Reserve, Cleveland, Ohio, her Master’s in Public Health from New York University, and her Baccalaureate in Community Nursing from Concordia University in Montreal.

She has published and spoken extensively in North America and internationally. Dr. Shamian is known for her commitment to professional excellence in practice, education, and research. Her continuous interest in health care politics and policy and international health is well-known. She is the 1995 recipient of the Ross Award for Nursing Leadership.

SOURAYA SIDANI, RN, PhD is an Associate Professor in the Faculty of Nursing, University of Toronto. She teaches courses related to research methods and instrument development and testing. She consults with researchers and clinicians about the design and implementation of research and program evaluation projects, and the analysis of data. Her research areas of interest focus on evaluating nursing interventions and refining research methods and measures for determining the clinical effectiveness of interventions. She developed and tested a framework for evaluating interventions and published a book on the theory-driven approach to intervention evaluation. She has been involved in various projects evaluating different interventions, nursing care delivery models, and educational programs, with the primary responsibility of designing the evaluation study, managing data collection and entry, and conducting the statistical analyses. The topics of her publications relate to methodological issues.

SUSANNE WILLIAMS, RN, MEd is the Immediate Past President of the RNAO, a professional association representing registered nurses in the province of Ontario. RNAO’s mandate is to advocate for healthy public policy and for the role of registered nurses.

Currently, Ms. Williams is the Interim Dean for the Faculty of Community Services, Ryerson Polytechnic University. She has been a faculty member at the Ryerson School of Nursing since 1973 and from 1988 to 1998 she served as Director. She is a member of the St. Elizabeth Health Care Foundation Board, and Past President of the Registered Nurses Foundation of Ontario.

She received a Master of Education (MEd) and a Bachelor of Nursing Science (BNSc) from Queen’s University in 1981 and 1971 respectively. Ms. Williams is also a graduate of the Wellesley Hospital School of Nursing.
Ms. Williams has been an active member of a number of professional organizations including the Council of University Programs in Nursing (Chair, 1994-1996), the Provincial Steering Committee on the Future of Nursing Education (Co-Chair, 1994-1996), and the JPNC (Co-Chair, 1994-1997 and 1999-2000).

Academic and professional interests include policy development and professionalization of nurses. Ms. Williams has been involved in the provincial debate over restructuring of nursing education for many years. Her research interests include the adequate supply of nursing human resources and overcoming the challenges of supply side database development.

VISHWANATH BABA, MBA, PhD is presently Dean of the Michael G. DeGroote School of Business, McMaster University. Dr. Baba teaches a variety of undergraduate and graduate management courses and is actively involved in thesis supervision at the master and doctoral levels. He also taught graduate courses on different aspects of management at the People’s University of China and Ecole Superieure des Sciences Economiques et Commerciales in France.

Dr. Baba has been an active consultant to CIDA and International Development Research Council (IDRC) and offered management workshops in China, Egypt, Kenya, India, and Vietnam. He is currently the President of the International Society for the Study of Work and Organizational Values.

Dr. Baba obtained his PhD in organizational behaviour from the University of British Columbia. Since then, he has focused on a program of research on employee-organization linkages. The studies have been funded by FCAR and SSHRC, and have resulted in many scholarly publications in journals and books. Dr. Baba has also presented papers in numerous national and international conferences.

BARBARA BEARDWOOD, MA, PhD is an Assistant Professor, Health and Society Programme, Division of Social Science, York University. Dr. Beardwood is also the course director for A Critical Study of Health and Society. Dr. Beardwood received her PhD in Sociology from McMaster University and worked as a Postdoctoral Fellow in the Environmental Health Program, McMaster University.
Dr. Beardwood's current research, funded by WSIB, focuses on the injured worker: from reflection to action on compensation and return-to-work issues.

JENNIFER BLYTHE, MLS, PhD is an Associate Professor at the School of Nursing, McMaster University and Senior Scientist at the NRU. She received a BA in English from the University of Hull then worked as a librarian in government, public, and university libraries. She completed a PhD in Anthropology at McMaster University and was subsequently employed in several Canadian universities. Later she received a Master in Library Science from the University of Toronto. Her current research interests include nursing HHR, restructuring, and nursing migration.

SHERYL BOBLIN, RN, PhD is an Assistant Professor at the School of Nursing, McMaster University. The foci of her research include nursing competency, decision-making of patients and health care providers, and learning needs of patients and nurses. For example, Dr. Boblin works with the CNO on their Quality Assurance Program, in the development of nursing competencies. She was involved in initiatives such as: Entry Level Competencies - Umbrella Working Group, Competencies to Initiate Project, and Competence Assessment Project.

Dr. Boblin is involved in the graduate and undergraduate nursing programs at McMaster. She takes an active role in the administration and implementation of the fourth year undergraduate program. She is the Level 4 Coordinator, as well as Course Planner, for two fourth year courses. She is a member of the Graduate Faculty and is on supervisory committees for graduate and doctoral students.

Dr. Boblin serves as a member of the Review Panels for the Development of Women Health Professionals Program and for the Journal of Nursing Education. She is also a member of the Editorial Board for the Hamilton Health Sciences Corporation Nursing Network newsletter.

RON BURKE, MA, PhD is a Professor at the Schulich School of Business, York University and Director of Research, International Organizational Studies. Dr. Burke completed his PhD in Industrial and Organizational Psychology at the University of Michigan. He primarily teaches at the MBA level, and is on several thesis committees for graduate students. Dr. Burke has received numerous research grants, including a recent three year strategic grant to investigate 'Hospital restructuring and the nursing staff well-being' with co-investigator E.R. Greenglass. Dr. Burke is published extensively both nationally and internationally in the field of organizational behaviour.

He has conducted workshops and seminars on several topics, including occupational stress, women in management, performance appraisal and employee development, conference leadership, etc. Dr. Burke has been a consultant for a number of clients on specific organizational projects in both private and public sectors.

SHEILA CAMERON, RN, PhD is a Professor and Dean of the College of Graduate
Studies and Research at the University of Windsor. She is also a Professor at the School of Nursing. Dr. Cameron conducted a number of studies examining the impact of downsizing and mergers on hospital nursing staff since 1991. This work is published in national and international journals and presented at a wide range of conferences in North America and other countries. Research funding for these studies has been received from the Ontario MOHLTC and SSHRC.

DONNA CILISKA, RN, PhD is a Professor at the School of Nursing, McMaster University and has an appointment as a Nursing Consultant with the Hamilton Social and Public Health Services. Dr. Ciliska is a Career Scientist, MOHLTC, Ontario and a Co-Editor of Evidence-Based Nursing. Her research interests include community health, obesity, eating disorders, and research dissemination.

MARGARET DENTON, PhD is the Director of the McMaster Centre for Gerontological Studies and Professor of Gerontology and Sociology, McMaster University. She teaches courses in research methods, aging, and health and society. Dr. Denton's research interests include: women's health, formal care giving, health and aging, community health and social services, long-term care, supportive housing, and retirement and income inequality. Dr. Denton is also experienced in social survey research and applied social research and is currently involved in three research projects. Dr. Denton is a Co-Investigator on "Social and Economic Dimensions of an Aging Population" and Principal Investigator on "Planning for Later Life", both research projects funded by SSHRC. As well, Dr. Denton was awarded funding from the WSIB for a research project entitled "Organizational Change and the Health and Well-being of Home Care Workers".

ALBA DICENSO, RN, PhD is a CHSRF/CIHR Nursing Chair and a Professor at the School of Nursing and in the Department of Clinical Epidemiology and Biostatistics, McMaster University. She is lead Editor of Evidence-Based Nursing, an international journal that summarizes methodologically sound published research of relevance to nurses, and Co-Director of the Canadian Centre for Evidence-Based Nursing. Dr. DiCenso's primary research area is the introduction and evaluation of nurse practitioners in primary and tertiary care settings. Over 10 years, she led multi-disciplinary, multi-phase projects that introduced neonatal nurse practitioners into Ontario tertiary level neonatal intensive care units. She is currently the Principal Investigator of a multi-phase project to evaluate the primary care nurse practitioner initiative in Ontario. She worked with decision-makers at local, regional, and provincial levels.

MAUREEN DOBBINS, RN, PhD is an Assistant Professor at the School of Nursing, McMaster University and is appointed as a Public Health Associate with the City of Hamilton Social and Public Health Services Division. Dr. Dobbins is currently a post-doctoral fellow sponsored by the Canadian Health Services Research Foundation (CHSRF) and a member of the
Canadian Centre for Evidence-Based Nursing. Her research interests are research transfer and uptake, evidence-based decision-making, organizational culture, outcomes research, health economics, physical activity, and tobacco control.

SUSAN FRENCH, RN, PhD is currently Dean of Nursing at McGill University. She received her PhD (Education) from the University of Toronto. She held a variety of administrative positions at McMaster University in nursing, including Associate Dean of Health Sciences (Nursing) and Director of the School of Nursing from 1980-90. Dr. French played the key role in the development of the program of accreditation of undergraduate nursing education in Canada. Dr. French's expertise in HHR development is reflected not only in her work in nursing in Canada but also in consultation to international donor agencies, including the Canadian International Development Agency (CIDA) and UK's Department for International Development, and non-government organizations such as the World Bank and African Medical and Research Foundation. Her extensive involvement with the development of nursing in Pakistan through a series of projects and programs funded through CIDA since 1983, provides her with an opportunity to compare and contrast dimensions of HHR development in Canada and a country in the south.

Her research in NHRD includes the study of nursing as a career choice, the worklife of nurses, and the role of consumers in health care. She is a member of an interdisciplinary research team studying independence of well elderly and preparation for later years of life.

In 2001, Dr. French accepted the position of Associate Dean/Director of the School of Nursing, McGill University. She is a member of a CHSRF and FRSQ funded training centre to prepare researchers interested in studying nursing service administration. This centre is a collaborative effort among McGill University, Montreal and Laval University. Dr. French is functioning as a liaison between the NRU (McMaster site) and the Quebec scene.

ESTER GREENGLASS, PhD is a Professor of Psychology at York University. Dr. Greenglass received her PhD from the Department of Psychology, University of Toronto. Her research interests include: stress and job burnout, downsizing and its psychological effects on nurses, and coping. Professor Greenglass developed the Proactive Coping Inventory (PCI) (in collaboration with R.Schwarzer), a valid and reliable instrument to assess coping. Her research has resulted in several scholarly publications in journals and books.

MARTHA HORSBURGH, RN, PhD is Director of the School of Nursing, University of Saskatchewan. Dr. Horsburgh’s research interests include the quality of nursing worklife and the impact of hospital downsizing on nurses who remain in the system (the survivors). She is also heavily invested in the study of adult self-care, especially as it relates to individuals with chronic illness and their caregivers. Both lines of research feature quantitative and qualitative approaches to the generation of new knowledge. Results have been published widely and presented nationally and internationally.
MABEL HUNSBERGER, RN, PhD is an Associate Professor of Nursing at McMaster University. Mabel received her undergraduate and Master degrees in the United States and completed her PhD at the University of Waterloo in July, 2000 on "The Effect of Introducing Parents of Hospitalized Children to the Nursing Mutual Participation Model of Care: A Randomized Controlled Trial".

She practised and taught nursing in the U.S. until her return to Canada in 1982. Her clinical expertise in pediatric nursing developed in various pediatric settings including general pediatric wards, emergency room, neonatal intensive care, primary care as a pediatric nurse practitioner, and two years in a pediatric hospital ward in Taiwan. She taught in a Pediatric Nurse Practitioner program and in a variety of Schools of Nursing, the most recent being the University of Michigan. She published Family Centered Nursing Care of Children for W.B. Saunders (1981; 1989; 1994).

She accepted a position at McMaster University, School of Nursing in 1982. She was instrumental in setting up the first Clinical Nurse Specialist/Neonatal Practitioner program at McMaster in the 1980's and participated in the research to evaluate this program. She continues her involvement in the curriculum development of the graduate program, and is the Co-ordinator of the McMaster-Mohawk-Conestoga Collaborative BScN Programme. She has twice been the lead faculty member on the accreditation process for McMaster School of Nursing and is a member of the Review Team Pool for CAUSN. She supervises undergraduate clinical and research students, and is on numerous thesis committees for graduate students studying pediatric issues.

COLLEEN McKEY, RN, MScHSA, PhD(C), CHE is an Assistant Professor and Program Director for the Nursing and Health Care Leadership and Management Program, Faculty of Health Sciences, School of Nursing, McMaster University. Colleen's research foci include leadership practices, change theory, and human resource issues in all sectors of health care. Currently, her research includes leadership practices, work effectiveness, and mentorship for nurse leaders in Ontario's hospital sector.

Colleen has held a number of administrative positions in the hospital sector including Vice-President, Clinical Services for a hospital in the Niagara Region. In addition, she has been actively involved with a number of committees and task forces in the health care sector. Colleen is past member of the Board of Governors for CCAC Niagara and former Chair of the Governance Committee.

CHARLOTTE NOESGAARD, RN, MScN is an Assistant Professor at the School of Nursing, McMaster University. She has extensive expertise in the utilization of knowledge management in clinical practice of the health care sector. She is one of the investigators of the Province Wide Nursing Project which examined the integration of health care services across the continuum of care (acute, long term, and home care services). She is a Past President of the RNAO and has traveled throughout Canada discussing future recruitment of RNs in Canada. Professor Noesgaard is currently the Vice Chair of the
Grand River Hospital Board and is involved in the Joint Executive Committee for the Region of Waterloo as it advances health care services into the 21st century.

JENNY PLOEG, RN, PhD is an Assistant Professor at the School of Nursing, McMaster University and is appointed as a Public Health Associate with the Social and Public Health Services Division, City of Hamilton. She is an Associate Editor of Evidence-Based Nursing. Her research interests include health and aging, health promotion and disease prevention, caregiver support, and evaluation of community health services.

JOAN ROYLE, RN, MScN is an Associate Professor at the School of Nursing, McMaster University. Her research interests include nursing informatics and evidence-based practice. She is Principal Investigator for the evaluation of the Province Wide Nursing Project and is currently involved in studies to assess the clinical information needs of caregivers in long-term care, the implementation of a long-term care resource centre, and an evaluation project to promote evidence-based long-term care. Her current research activities include reflective practice. She is the author of a medical-surgical nursing text and has published widely and presented papers both nationally and internationally on nursing informatics and research utilization.

DYANNE SEMOGAS, RN, MN, Post-Masters NP is an Assistant Professor at the School of Nursing, Mcmaster University and the Clinical Director of the Mac Door, a community-based intervention program for street youth. Dyanne’s research interests include looking at pathways to and from the street amongst street youth, advanced nursing practice roles servicing the homeless community, and assessing the health needs of the homeless. Currently, her research includes evaluation of a self-directed intervention to help street youth re-enter mainstream society, studying motivation to leave the streets, and developing a community action plan for the health needs of the homeless in the city of Hamilton.

Dyanne was formerly the Research Coordinator of the Quality of Nursing Worklife Research Unit and was the Advanced Health Assessment and Diagnosis Professor for the Ontario Educational Programme for Nurse Practitioners. In addition, she has been actively involved in community boards including the Phoenix Place Second Stage Housing for Abused Women, as well as a board member and coordinator of the Pastoral Program at the First Unitarian Church in Hamilton. Dyanne is a member of the Executive Committee of the McMaster University Student Outreach Clinic, which is a volunteer group of students and faculty who provide food, clothes, and health information to the homeless community in the city of Hamilton.

JANE UNDERWOOD, RN, MBA is the Senior Partner of Underwood and Associates (Public Health Consultants) and Associate Clinical Professor at the School of Nursing, McMaster University. Her research foci include the quality of workplace for nurses, roles and skills of professionals in community health, and the use of evidence by public health and community practitioners. She has
taken an active role on numerous committees such as the Provincial Public Health Research Education and Development (PHRED) Committee and the Mandatory Programs Measurement Group of the Ontario MOHLTC, and has been involved in provincial initiatives such as the development of the Healthy Babies, Healthy Children Program. Professor Underwood has presented and published extensively in the area of public health nursing and health promotion and currently is a Reviewer for the Canadian Journal of Public Health.

OLIVE WAHOUSH, RN, MSc, PhD (C) is an Assistant Professor at the School of Nursing, McMaster University and a Project Coordinator of the Research Institute, St. Joseph's Health Centre in Toronto. She is also an active member of the Curriculum committee for the Graduate Program at the University of Toronto. Olive is currently completing her PhD in Health Administration: Outcomes Measurement and Evaluation Stream at the University of Toronto. She has clinical expertise in the areas of Maternal Child and Pediatrics. This past year, she was involved in a study investigating Pregnancy and Child Bearing in Refugees: Transitional Health. Olive has received several awards, most recently Excellence in Leadership and Administration (RNAO) and a scholarship from the University of Toronto.

ROBIN WEIR, RN, PhD is a Professor at the School of Nursing, McMaster University. Dr. Weir's research interests are quality of nurses' worklife and psychosocial and behavioural research related to health. She held numerous administrative positions in nursing such as Chair and Dean of Studies in the BscN program at McMaster (1979-85) and Assistant Director Educational Resources (1995-98). She has published and presented papers both nationally and internationally and consulted with various community agencies on nursing issues such as quality assurance standards for practice.

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ISIK ZEYTINOĞLU, PhD is a Professor in Human Resources and Management, School of Business, McMaster University. Dr. Zeytinoğlu is known nationally and internationally for her research in the areas of non-standard and flexible work arrangements, women's work and occupational health, international and comparative industrial relations/human resource management, and women in business as managers/professionals. She is currently principal or co-investigator of several projects to: examine nonstandard and flexible labour contract issues in workplaces (SSHRC), study occupational health of women in non-standard work (Status of Women Canada - Policy Research Grant), establish a community care research centre (CIHR), and establish an Ontario research network for electronic commerce (ORDCF). She is a key investigator in the WSIB funded project "Organizational Change and the Health and Well-being of Home Care Workers". Dr. Zeytinoğlu is Chair of an international network of researchers sponsored by the International Labour Organisation. She is also the editor of a forthcoming (2003) research volume: Flexible work arrangements: Conceptualizations and international experiences.

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NRU 1996-2001 Final Report
APPENDIX B

ONGOING AND RECENTLY COMPLETED RESEARCH

The following research projects are a reflection of the activities to November 30, 2001 and are listed in alphabetical order by first investigator. The projects have been categorized under the set of NRU objectives (see page 5).

Aiken, Sochalski, Silber (Co-Principal Investigators), Shamian, Anderson, Tu, Giovannetti, Clarke, Rafferty, Hunt, & Busse

Outcomes of Hospital Staffing.\textsuperscript{22}

Stage: Analysis and report writing

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
- Determine the relative effects of hospital staffing on severity adjusted inpatient mortality and selected nurse outcomes controlling for other likely variables.
- Determine the extent to which organizational attributes that affect nursing practice mediate the effects of nurse staffing on patient outcomes.
- Further develop the reliability and validity of failure to rescue as a measure of hospital performance and to examine the relationship between nurse staffing, organizational attributes, and several additional outcome measures.

Armstrong-Stassen (Principal Investigator)

Management Layoff Survivors: Immediate Long Term Effects of Downsizing on Managers.\textsuperscript{11}

Funded by: Social Sciences & Humanities Research Council (1994 - 1998)
Stage: Completed

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
- To investigate the reactions of management level survivors of downsizing and to identify the factors that influence this.
- This study determined the extent to which managers engage in adaptive coping strategies.
- It also identified factors that put certain managers at greater risk of being adversely affected by downsizing.
- The long-term consequences of organizational downsizing on management level employers were also determined.
ARMSTRONG-STASSEN (PI)

THE IMPACT OF DOWNSIZING ON FEDERAL GOVERNMENT EMPLOYEES.\textsuperscript{1,1}
Funded by: University of Windsor, Research Grant for Women (1997 - 1998)
Stage: Completed

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
- To examine the long-term effects of downsizing within a federal government department that had been targeted for a 20% reduction of its workforce.
- This study examined the long-term effects of workforce reduction on the job attitudes, work behaviours, and well-being of the remaining employees.
- It also identified the factors that led to better adjustment in employee well-being during a workforce reduction.

ARMSTRONG-STASSEN (PI) & TEMPLER

THE MANAGEMENT OF AN AGING WORKFORCE: AN ASSESSMENT OF HOW WELL EMPLOYERS ARE MEETING THE CHALLENGE.\textsuperscript{1,1}
Stage: Data collection

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
- To determine the preparedness of employers to deal with the aging workforce.
- A questionnaire was developed to assess what HR strategies employers currently have in place to meet the needs and preferences of older employees and what special HR policies they expect to implement in the future.
- Survey packets are being mailed out to over 2,000 HR managers in the fall of 2001.
- The findings of the more extensive SSHRC-funded study will identify the readiness of companies to meet the challenge of the aging workforce. Some of the innovative strategies for recruiting and retaining older employees will require changes in current rules regarding pensions and mandatory retirement age.

ARMSTRONG-STASSEN (PI) & WAGAR

THE LONG-TERM IMPACT OF DOWNSIZING ON THE INDIVIDUAL, THE WORK GROUP, AND THE ORGANIZATION.\textsuperscript{1,1}
Funded by: SSHRC (1998 - 2001)
Stage: Final stages of data collection

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
- To examine the long-term impact of organizational downsizing on individual functioning, work-group behaviour and organizational effectiveness within the manufacturing and government sectors.
- The final mail out of questionnaires will take place in the fall of 2001.
The findings provide HR and other managers, in both the private and public sectors, with information on the long-term effects of downsizing on individual functioning; work-group and organizational effectiveness; the factors that influence effectiveness over time; and the steps that need to be taken to minimize the harmful effects often associated with downsizing.

BABA (PI), JAMAL, & JOHNSTON

**WORK AND MENTAL HEALTH ACROSS CULTURES: PROJECT - A STUDY OF NURSES IN CHINA.**

Stage: Data collection and preliminary analysis

*Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:*

- Attempts to document at a broad level the organizational behaviour of nurses working in hospitals in Mainland China. More specifically, the investigators are exploring the antecedents and consequences of work related stress, burnout, and depression.
- Also interested in the cross-cultural portability of models of mental health.
- Findings will encourage the development of training programs and organizational development efforts toward improving the quality of worklife for nurses.

BAKER, ANDERSON, MCKILLOP, MURRAY, & PINK (PIs)

**DEVELOPMENT OF A BALANCED SCORECARD FOR ONTARIO HOSPITALS (PHASE 2).**

Funded by: OHA (1999 - 2000)
Stage: Completed

*Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:*

- Increase accountability to the public, improve hospital performance, and augment data quality.
- Clinical Utilization and Outcomes: Complex and shifting patterns of care emphasize the need to consider a broad range of indicators when examining hospital care. The indicators contained in this report provide a foundation on which to develop more comprehensive quality measurement programs that can serve quality improvement and public accountability needs.
- Patient Satisfaction: Overall, patients in Ontario are very satisfied with their in-patient experiences. They would return to the hospital for care and would recommend it. They felt their stay helped them and they thought highly of nursing care and physician care.
- System Integration and Change: Without improvements in information use and the development of organizational structures and processes that increase coordination and integration, hospitals will be unable to respond to the changing demands of the health care system and their communities.
Baker (PI), Brown, Anderson, McKillop, Murray, & Pink

Evaluating the Use of Hospital Performance Measures by Top Management Teams.

Stage: Analysis

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
- To determine the use and barriers to more effective use of hospital performance measures by upper management through a case study of three hospitals.
- Results to date indicate that a variety of factors are linked to use of performance measures.
- This research will support improvements in the design of performance indicators and balanced scorecards and identify interventions, including training and system design to improve the use of such performance measurement systems.

Baumann, French (Co-PIs), & Amarsi

Development of Women Health Professionals.

Stage: Completed

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
- Utilizes a health human resource model to build nursing capacity in the government, educational, and service sector.
- A collaborative health human resource program to enhance nursing in the area of education, regulatory framework and program development (with Aga Khan University).

Baumann, Giovannetti (Co-PIs), O'Brien-Pallas, Deber, Blythe, Hibberd, & DiCenso


Stage: Completed

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
- To describe the effects of restructuring, particularly redeployment, on nurses’ personal and work lives.
- Resulted in a better appreciation of the effects of redeployment on nurses, the nursing team, and the organization.
- Findings provided insights for planners and nursing leaders on the effects of redeployment on the nursing profession and the delivery of care.
BAUMANN (PI), MACKAY, RISK, & UNDERWOOD
QUALITY PRACTICE TOOL DEVELOPMENT.¹ ³
Stage: Report writing

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To ask working nurses about their feelings of support in their work environment that allow them to meet the standards of nursing practice.
• The tool was developed to assist nurses and agencies to identify and cultivate characteristics in the workplace that support quality professional practice.

BAUMANN, O’BRIEN-PALLAS (CO-PIs), ARMSTRONG-STASSEN, BLYTHE, BOURBONNAIS, CAMERON, IRVINE DORAN, KERR, MCGILLIS HALL, VÉZINA, BUTT, & RYAN
THE WORKING ENVIRONMENT AND HEALTH OF THE NURSING WORKFORCE - A POLICY SYNTHESIS.² ⁴
Funded by: CHSRF (2000 - 2001)
Stage: Completed

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To bring together research and experiential knowledge about nurses’ health and well-being in the work environment.
• Examined the impact of the working environment on the health of the nursing workforce (and hence, potentially, on patient outcomes).
• More than four dozen recommendations to policy makers on how to improve the quality of the working environment and the health of the nursing workforce (and hence, potentially, improve patient outcomes).

BAUMANN & UNDERWOOD (CO-PIs)
NURSING WORK ENVIRONMENT: STRATEGIES FOR ADDRESSING WORKLOAD ISSUES.¹ ³
Stage: Data collection

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To identify issues relevant to understanding nursing workload.
• To explore strategies for optimizing nursing workload.
• Findings will assist in identifying strategies to address workload issues for nurses.
Appendix B

Nursing Effectiveness, Utilization and Outcomes Research Unit

BAUMANN, ZEYTINOGLU (CO-PIs), BLYTHE, DENTON, & O'BRIEN-PALLAS

THE NEW HEALTH-CARE WORKER: THE IMPLICATIONS OF CHANGING EMPLOYMENT PATTERNS.1,1
Stage: Data collection

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:

- The purpose of this project is to explore the impact of current employment arrangements on the recruitment and retention of nurses.
- The objectives are to:
  - examine the human resource policies on standard and non-standard work arrangements and how these policies are operationalized in three large teaching hospitals;
  - examine the effects of standard and non-standard employment arrangements on the nursing workplace, including the functioning of nursing and multi-disciplinary teams;
  - explore nurses preferences for standard and non-standard work and the reasons for their choice;
  - investigate whether nurses whose preferences for particular employment arrangements are met, experience better quality of work life than nurses whose preferences are not met; and
  - evaluate the implications of having preferred employment arrangements for retention and suggest policy recommendations for managers and decision-makers.
- This exploratory study will result in a better understanding of the consequences of contemporary work arrangements. The findings will assist human resources decision-makers in creating employment arrangements that will benefit managers, nurses and ultimately patients.

BRAZIL, ROYLE (CO-PIs), & MONTEMURO

EVALUATION OF A LONG-TERM CARE RESOURCE CENTRE.1,1
Stage: Completed

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:

- To establish the feasibility of a long-term care resource centre.
- The evaluation established that considerable information resources existed in the community and that it was feasible to establish a long-term care resource centre.
- The long-term care resource centre was piloted for a year and was positively evaluated by users.
BURKE & GREENGLASS (CO-PIs)

HOSPITAL RESTRUCTURING AND NURSING STAFF WELL-BEING.  
Stage: Ongoing

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:

- This study examines the impact of organizational transitions such as hospital restructuring on the well-being of nursing staff.

CAMERON (PI) & ARMSTRONG-STASSEN

INVESTIGATION AND COMPARISON OF CRITICAL ISSUES FACING HOSPITAL AND COMMUNITY HEALTH NURSES IN ONTARIO.  
Funded by: MOHLTC (2000 - 2001)
Stage: Data analysis

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:

- To explore the workplace experiences of nurses in both hospital and community settings. Specifically, the nurses completed questionnaires designed to measure selected organizational, interpersonal, and job related characteristics in their employment.
- Preliminary analysis suggests that there are differences between the groups.
- Results will be helpful to nurse managers as they try to recruit nurses in this time of growing shortage.
**Cameron (PI), Armstrong-Stassen, & Horsburgh**  
**Impact of Hospital Restructuring on Health Care Personnel.**

Stage: Completed

*Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:*  
- To examine the impact of downsizing and hospital restructuring on nurses who remain in the workforce.

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**Carter (PI)**  
**Forecasting Short Term Bed Availability in an Acute Care Hospital.**

Funded by: Sunnybrook and Women’s College Health Sciences Centre (2000 - 2001)  
Stage: Data collection

*Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:*  
- To develop a practical, statistical method to predict the number of beds that should be available for emergencies and elective admissions 1 or 2 days in advance.  
- To provide confidence intervals on availability.  
- To develop a tool for the hospital to use for short-term planning (e.g., potentially rescheduling elective surgery in advance).  
- To analyze the causes of ER critical care bypass and redirect with the objective of reducing cancelled surgery rates.  
- To improve the hospitals resource utilization in terms of beds and reduce the cancelled surgery rate.

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**Carter (PI), Busby, Gendreau, Lakats, & Soriano**  
**Home Care Strategic Planning Model.**

Funded by: Simcoe County CCAC (1999 - 2000); Ontario Graduate Scholarship (2001)  
Stage: Data collection

*Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:*  
- Develop a model that will estimate the total annual cost of providing a desired level and quality of home care service.  
- The model will:  
  - include forecast estimates of future demand for home care  
  - enable agencies to determine how much service can be delivered given existing funding levels and/or how much money/resource is required for a specified level of care
• provide decision-makers with the quantitative analysis they require to make rational and equitable decisions concerning the allocation of home care resources

CHOCHINOV (PI), STERN, & WEIR
CANADIAN VIRTUAL HOSPICE BUSINESS PLAN.1,5
Funded by: Western Economic Diversification Project, Winnipeg, Manitoba (August 2001 - 2002)
Stage: Ongoing
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• The main goal is to develop an overall design and business model for an internet-based interactive network to establish the Canadian Virtual Hospice (CVH).
• The CVH is viewed as a communications portal, using chatrooms, bulletin boards, and a library system as the primary interactive components.

COHEN, DRUMMOND (CO-PIs), HEBERT, FERRIS, PRINGLE, & GLOBERMAN
THE MANAGEMENT, ETHICS, AND LEGALITY OF EXCHANGING PERSONAL HEALTH INFORMATION BETWEEN PROFESSIONALS AND AGENCIES FOR ALZHEIMER DISEASE.2,4
Funded by: Alzheimer Society of Canada (2000 - 2001)
Stage: Ongoing
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Descriptive study using mainly focus groups and interviews to understand the management, ethics, and legality of exchanging personal health information between professionals and agencies for Alzheimer Disease.
• Will help better understand how to exchange information in light of the new Privacy Act.

COHEN, ROSE, WALL, & O'BRIEN-PALLAS
ANAESTHETISTS’ PRACTICE PROFILES: RELATING COSTS AND OUTCOMES.2,4
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Used a nursing task inventory system to assess nursing resources for patients with and without adverse postoperative events in the postanesthesia care unit (PACU).
• Over 3 months, 2,031 patients were observed, and each task/activity related to direct patient care was recorded and assigned points according to the Project Research in Nursing (PRN) workload system.
Three theoretical models were developed to determine the effect of differing rates of adverse events on the requirements for nurses in the PACU.

Nursing care documentation based on requirements for individual patients demonstrates that the rate of postoperative adverse events affects the amount of nursing resources needed in the PACU.

**Deber (PI), Baumann, Obblin-Cummings, & Stewart**

**Preferences for Participation in Medical Treatment Decisions.**

Funded by: SSHRC (1997 - 2000)

Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- Look at people with Multiple Sclerosis and their views on autonomy and balancing roles of family, providers, and patients.
- Ascertain the extent to which results previously obtained regarding problem-solving and decision-making involvement in angiogram patients hold for other groups.
- Investigate policy and ethical implications of various patient roles.
- Examine the impact of disease and respondent characteristics on preferences for involvement and information.
- Final Report submitted.

**Deber (PI), Baumann, Obblin-Cummings, Stewart, Myers, Millson, Robinson, & Halman**

**Preferred Roles of People with HIV/AIDS in Treatment Decision-making: Causes and Consequences.**

Funded by: Ontario HIV Treatment Network & HEALNet (1999 - 2001)

Stage: Analysis and thesis writing

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- Explore whether patients wish to be “autonomous” which in turn has implications for the organization and delivery of patient education.
- Examine the information seeking behaviours and the roles that people living with HIV/AIDS wish to play in making treatment decisions.
- Preliminary results suggest that patients reject a fully autonomous role, with a majority (81.6%) of participants preferring to share decision-making responsibilities with their providers.
DEBER (PI), COCKERILL, COHEN, & LEGGAT
THE IMPACT OF POPULATION-BASED FUNDING MODELS ON SPECIALIZED SERVICES.1,1
Stage: Analysis and report writing
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Ascertain the potential impact of population-based funding on specialized services.
• Develop a new typology based on three dimensions: location of service (inpatient vs. outpatient), fixed costs (high to low), and the extent to which quality requires highly specialized expertise and/or a critical mass of patients.
• This typology may be useful in developing funding formulas and in monitoring quality of care, particularly in regionalized models and stresses the importance of looking at critical mass and at the influence of non-geographically based expertise, features often overlooked in current planning models.
• Our analysis would suggest that provincial governments are wise in moving slowly toward fully integrated budgeting, at least until the potential impact on the quality and economic viability of specialized services can be analyzed.
• Their current focus on strengthening primary care and its links with community-based services promise to gain many of the likely advantages of regionalization - particularly the breaking down of funding silos - without "throwing out the baby with the bathwater."

DEBER (PI), COCKERILL, & GRIFFIN
THE IMPACT OF POPULATION-BASED FUNDING MODELS ON PEDIATRICS.1,1
Funded by: Hospital for Sick Children Foundation (1997 - 1999)
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Across Canada, health reformers have been proposing or implementing various population-based models in order to integrate hospital and community-based services. In most provinces, this has taken the form of regionalization. This study examined regional activities in Canada to assess the likely impact of regional reforms on specialized services and to guide policy making for delivery of specialized care.
• The findings suggest that the theoretical considerations noted in the literature review might indeed create problems for specialized services, such as those found in Canada's pediatric hospitals, should attempts to achieve greater systemic integration not pay sufficient attention to consequences for maintaining the viability of specialty programs. Whereas repatriation can be highly appropriate for certain conditions, careful attention to the implications of repatriation decisions appears imperative. Paradoxically, in their reluctance to move to fully population-based funding approaches, the provinces appear to have "gotten it right" at least with reference to services for these specialized populations.
DEBER (PI), WILLIAMS, BAUMANN, O’BRIEN-PALLAS, ET AL.
FROM MEDICARE TO HOME AND COMMUNITY: OVERTAKING THE LIMITS OF PUBLICLY-FUNDED HEALTH CARE IN CANADA.1,6
Funded by: SSHRC (2001 - 2006)
Stage: Data collection and survey distribution

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Integrate health services, population health, and clinical research for examination of the policy and service delivery implications of our increased reliance on a broad range of community-based services, for a broad range of clients.
• Inform policy and service delivery by fostering timely, high-quality research that seeks to document and understand the implications of the shift to home and community, and its differential impact on diverse populations, in partnership between community-based and university-based researchers.
• Create a structure for conversation, mutual learning, and collaboration among community organizations and researchers about the implications of home and community care.
• Disseminate research findings and improve the transparency and accountability of decision-making.
• Provide opportunities for training of health researchers in a broad variety of disciplines in an environment characterized by interaction with community partners.
• Avoid duplication in the research agenda and arrange for joint dissemination of relevant research results, by extending and elaborating the NRU and Home Care Evaluation and Research Centre (HCERC) networks whose primary missions are neither policy analysis nor training, but which have strong links with key stakeholders interested in this research and training agenda.

DEBER (PI), WILLIAMS, KOURI, & CONRAD
DO REGIONALIZATION MODELS MATTER? HOME CARE RESOURCE ALLOCATION IN MARITIME PROVINCES.1,6
Stage: Data collection, analysis, and thesis preparation

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Compare how various health regions in the Maritime provinces allocate resources across health care sectors.
• Examine whether resource allocation decision-making is affected by the varying configurations of services incorporated into regional budget envelopes.
• Given the dynamic nature of health reform, it is crucial that informed policy development and decision-making be based on knowledge about the advantages and disadvantages of various approaches to deciding how regional funding envelopes are constructed and whether budgets for particular services are protected or integrated into funding envelopes.
**DENTON (PI), ROSENTHAL, FRENCH, GAFNI, JOSHI, & MARTIN-MATTHEWS**  
**SOCIAL INEQUALITIES AND PREPARATION FOR LATER LIFE.**
Stage: Data analysis and manuscript preparation

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- A qualitative study looking at the development of a model of Reflexive Planning for Later Life.
- Both financial and non-financial considerations (i.e., health, leisure) are considered.
- Findings will impact on both policy and research.

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**DENTON (PI) & ZEYTINOGLU**  
**HEALTHY WORK ENVIRONMENTS IN COMMUNITY BASED HEALTH AND SOCIAL SERVICE AGENCIES.**
Funded by: SSHRC (1996 - 1999)  
Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- The objective of this research was to examine the impact of home care work on home care workers' health and well-being.
- Findings show associations between home care work factors and the mental well-being of home care workers.
- Organizational change, fear of job loss, excessive workload and lack of organizational and peer support were associated with increased levels of stress and decreased levels of job satisfaction.
- Repetitive tasks, poor air quality and physical office environment, work extended hours, increased workloads, lack of organizational support and work-related injuries were found to be associated with self-reported musculoskeletal disorders.

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**DENTON (PI), ZEYTINOGLU, & WEBB**  
**ORGANIZATIONAL CHANGE AND THE HEALTH AND WELL-BEING OF HOME CARE WORKERS.**  
Stage: Data collection

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- To study the impact of health care restructuring and other organizational changes on home care agencies and on the health and well-being of home care employees.
• Data collection includes key informant interviews with managers, focus groups with
service providers and office staff, and a mailed out questionnaire to all home care
employees in Hamilton-Wentworth.
• Previous research conducted has shown that home care workers are at risk for chronic
stress problems, exhaustion, musculoskeletal disorders (soft tissue injuries), workplace
injuries, and accidents; further, these health care problems have been linked to the social
organization of their work.
• Findings will make significant contributions to policy formation and professional
practices in Canada and elsewhere.
• Will also have an impact on health-related policy formation in home care at local,
provincial, and international levels.

DERMAN & CARTER (Co-PIs)
A Model for Predicting Bed Availability in an Acute Care Hospital.2,4
Funded by: Sunnybrook & Women’s College Health Science Centre
Stage: Analysis and report writing
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Use statistical methods to forecast the number of vacant beds that should be available for
elective patients "tomorrow" at Sunnybrook.
• If the hospital has a better idea of the availability, they can make better decisions today
about possibly cancelling elective surgery in advance instead of waiting until tomorrow,
and cancelling the "last" elective surgery because there are no beds left.
• Plan to design a decision support system that could be used by the hospital.
• This work could have a significant impact on discharge planning and scheduling elective
surgery. The same methods can be applied several days in advance.

DiCenso (PI), BAUMAN, BLYTHE, HAINES & SILVERMAN
After Hours Study in Metro Toronto Community Health Centres.1,3
Funded by: Metro Toronto Community Health Centres (1996 - 1997)
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To develop a model for the delivery of after hours primary health care in Metro Toronto
Community Health Centres (CHC).
• The model entailed changes at the individual and metro-wide CHC level.
• At the individual CHC level, three individual changes were recommended: extended hours of service, an increase in the amount of time available for unscheduled appointments, and the provision of more information to clients regarding the availability of after hour services.
• At the metro-wide level, we recommended a metro-wide central on call service in which all after hour calls to CHCs would be routed.

**DiCenso**  
**National Chair for Management of Nursing Services.**

Stage: Ongoing  
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:  
• Focus is on capacity building bringing new researchers to the point where they can independently contribute to applied health services and policy research issues.

**DiCenso (PI), Sidani, Irvine, Laschinger, Andrusyszyn, Gafni, Hutchison, Guyatt, Walter, Bhatia, & Caty**  
**Evaluation of the Primary Care Nurse Practitioner Initiative.**

Funded by: MOHLTC (1997 - 2001)  
Stage: Final report writing  
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:  
• To evaluate Nurse Practitioners (NPs) in primary and tertiary settings.  
• The focus is on the evaluation of educational programs to prepare NPs; identification of employment settings; practice patterns; and evaluation of the impact of NPs on quality of care, patient outcomes, and the health care system.  
• Findings will expand the understanding of the Acute Care Nurse Practitioner role and provide empirical evidence to guide decision-making by policy makers at different levels.

**DiCenso (PI), Siracusa, & Ploeg**  
**Identification of Adolescents Likely to Engage in High Risk Behaviour.**

Funded by: Hamilton-Wentworth Department of Public Health Services, Teaching Health Unit (March 1999 - December 2002)  
Stage: Data analysis  
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:  
• In this study, the first outcome is the identification of predictors of adolescent high-risk behaviour.
• An awareness of these predictors could inform the design of interventions to prevent adolescent engagement in high-risk behaviour.

DOBBINS (PI), BEYERS, DEWOLFE, FELDMAN, LOCKETT, MICHEL, MICUCCI, THOMAS, VOHRA, & UNDERWOOD

A SYSTEMATIC REVIEW OF THE EFFECTIVENESS OF SCHOOL-BASED PHYSICAL ACTIVITY INTERVENTIONS IN PROMOTING PHYSICAL ACTIVITY IN CHILDREN AND ADOLESCENTS AGED 6-18.14
Funded by: Hamilton-Wentworth Department of Social and Public Health Services - Public Health Education, Research and Development Division (April 2000)
Stage: Completed

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• An evaluation of the most effective school-based physical activity interventions and making recommendations for public health practice will provide guidance to public health managers/administrators and front-line staff with respect to the provision of services.
• The identification of intervention effectiveness will promote the use of physical activity interventions that are known to be effective. This will promote the use of physical activity outcomes among children and adolescents in Ontario.

DOBBINS (PI), BRUNTON, KOTHARI, & JACK

EXPLORING THE PROCESS OF EVIDENCE-BASED DECISION-MAKING AMONG DECISION-MAKERS IN PUBLIC HEALTH AND LOCAL BOARDS OF HEALTH IN ONTARIO.14
Funded by: Niemeier Award (July 2000 - July 2001)
Stage: Completed

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To understand and describe the decision-making process related to program planning in public health units in Ontario and to clarify the role of research evidence in the decision process.
• Report to funding agency. Summary and report to be disseminated to study participants.
• These results will assist in the development of research transfer and uptake strategies in public health.
• The implementation of proven effective public health interventions will eventually result in enhanced population health outcomes.
DOBBINS (PI), ROOTMAN, GREEN, & CAMERON  
DEVELOPMENT AND EVALUATION OF DISSEMINATION STRATEGIES IN PUBLIC HEALTH AND HEALTH PROMOTION.1,4  
Funded by: CIHR (January 2001 - December 2002)  
Stage: Data collection  
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:  
• To develop a registry of all published reviews evaluating the impact of public health and health promotion interventions.  
• To evaluate the impact of a dissemination strategy to various target users across Canada.  
• On-line registry of published reviews, dissemination of research results on Tobacco Control, and impact summary of the effectiveness of a dissemination strategy.  
• Results will assist in the development of effective research transfer and uptake strategies, and will facilitate decision-maker access to research which evaluates the effectiveness of interventions.

DOBBINS, THOMAS (CO-PIs), O’BRIEN, EDWARDS, CILISKA, BEYERS, RICHARDSON, & UNDERWOOD  
IMPROVING COMMUNICATION AMONG PUBLIC HEALTH RESEARCHERS AND DECISION AND POLICY MAKERS.1,4  
Funded by: CHSRF (1999 - 2001)  
Stage: Completed  
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:  
• To promote improved communication between public health researchers and public health decision and policy makers in Ontario in order to promote increased uptake of systematic review results into public health policy and decision-making.  
• To develop a communications infrastructure that will allow the future development of summaries of each systematic review and their translation into French.  
• To determine the format (current vs simplified) that is most useful in decision-making by policy makers and public health managers/administrators for the summaries from eight systematic reviews.  
• To evaluate the impact of the summaries on decision and policy making.  
• Results will assist other researchers in summarizing study results. In addition, the expectation is that writing summaries that conform to the preferences of the target users will promote increased research transfer and uptake into public health policy and practice.
EDWARDS (PI), DAVIES, DOBBINS, PLOEG, & SKELLY
EVALUATION OF RNAO BEST PRACTICE GUIDELINES PROJECT.  
Stage: Data collection and analysis

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To evaluate the impact of the implementation of nursing practice guidelines into various clinical areas and settings.
• Reports to MOHLTC and to the individual health care settings who participated.
• Reports will outline the level of success in implementing the guidelines, barriers experienced, and impact on patient outcomes and quality of nursing worklife.
• Assist in the development of more effective dissemination strategies for the implementation of practice guidelines.

ELLIS, RAINA (CO-PIs), BROWNMAN, BROUWERS, CHAMBERS, CILISKA, HAYNES, LAVIS, O’BRIAN, RAND, SUSSMAN, & WHELAN
DIFFUSION AND DISSEMINATION OF EVIDENCE-BASED CANCER CONTROL INTERVENTIONS. 
Status: Data collection

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To systematically review the literature regarding effectiveness of cancer control prevention strategies.
• To systematically review the literature regarding effectiveness of strategies to promote dissemination, diffusion and uptake of cancer control prevention interventions.
• To derive policy and research recommendations from the above review.

ESTABROOKS (PI), LANDER, LAU, BOSCHMA, WATT-WATSON, STEVENS, O’BRIEN-PALLAS, DONNER, & WILLIAMS
THE DETERMINANTS OF RESEARCH UTILIZATION IN AN ACUTE CLINICAL SETTING. 
Stage: Data analysis.

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• We will determine: 1) a set of factors that influence research utilization by nursing personnel concerning pain management; 2) an explanation of how these factors interact; 3) a blueprint that we can use to study these factors in a more comprehensive multiple case study; and 4) findings that enable us to begin to plan appropriate interventions to improve pain management by increasing the use of pain research.
• Examining what guides research utilization and what barriers there may be to research utilization in the acute clinical setting.
• Nurses make up the majority of health workers in hospitals. Therefore an increase in use of scientific research (evidence) will have a positive effect on patient and system outcomes.
• Critical Thinking Dispositions and Research Utilization presented at Western Region CAUSN, Saskatoon, February 2001.

Estabrooks (PI), Stevens, Lander (Co-PIs), Watt-Watson, O’Brien-Pallas, Donner, Williams, Boschma, Humphrey, & Golden-Biddle

The Determinants of Research Utilization in a Pediatric Acute Clinical Setting.\textsuperscript{1,4}
Stage: Data analysis

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• We will determine: 1) a description of factors that influence nurses’ use of pain management research; 2) an explanation of how these factors function; 3) a blueprint that we can use to study these factors in more comprehensive case studies; and 4) findings that enable us to begin to plan appropriate interventions to improve pain management by increasing the use of pain research in pediatric contexts more widely.
• Address conclusion that there is a significant problem with research use among health professionals and health policy makers.
• Nurses make up the majority of health workers both in hospitals and in Canada. Therefore an increase in use of scientific research (evidence) will have a positive effect on patient and system outcomes.
• An Ethnographic Case Study of Research Utilization will be presented at the Faculty of Nursing Research Day, University of Toronto and the 9\textsuperscript{th} International Pediatric Nursing Research Symposium, Montreal in April 2002.

Fisher (PI), Baumann, & Blythe

Nursing Vacancy Rates in Ontario.\textsuperscript{1,1}
Funded by: MOHLTC (March 2001 - July 2002)
Status: Data collection

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• The Nursing Secretariat at the MOHLTC has identified inconsistencies in the use of the term vacancy and in the number of vacancies reported.
• The purpose of the study is to clarify and define the term "vacancy" as it applies to nursing.
• To quantify nursing vacancies in acute and long-term care settings in Ontario.
A draft template has been developed and will be evaluated by testing it on a sample of acute care hospitals and long-term care institutions in the seven regions of Ontario. The template will be amended based on the results of the pilot test and additional interviews. It will be used as a data collection instrument in an Ontario-wide study to quantify the number of nursing vacancies.

**French (PI), Eyles, Walters, & Beardwood**

**Complaints Against Doctors and Nurses: A Study of the Impact of Ideological and Structural Changes.**

Funded by: SSHRC (April 1996 - March 1999)

Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- To identify the impact of both structural changes and rise in consumerism on the number and type of complaints against nurses and doctors; and to identify the process whereby a concern does or does not become a complaint.
- There were several outcomes in this study: the concern-complaint process is very complex and patients and multi-factors influence the decision to file or not to file a complaint; structural changes are impacting on the number and nature of complaints against nurses, but has less of an impact on complaints against physicians; and finally, differences in the way complaints are dealt with by the two colleges may account for the public’s attitude toward the regulatory bodies.

**French (PI), Eyles, Walters, & Beardwood**

**Evaluation of the Use of the Participative Resolution Programme by the College of Nurses of Ontario.**

Funded by: College of Nurses of Ontario (1998)

Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- To determine the effectiveness of the use of a participative resolution approach to dealing with complaints against nurses.
- Found that both nurses and those who filed the complaint were satisfied with the process and outcomes.
- It was also identified that approximately 33% of the complaints were actually system problems.
HAYWARD (PI), CILISKA, & UNDERWOOD

**TRANSFERRING PUBLIC HEALTH NURSING RESEARCH TO HEALTH SYSTEM PLANNING: ASSESSING THE RELEVANCE AND ACCESSIBILITY OF SYSTEMATIC OVERVIEWS.**

Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- Found that people highly value systematic reviews, that people think systematic reviews should be a research priority in public health in Ontario, and that people still prefer a paper-based, as opposed to electronic-based, format.
- Report submitted to the Ontario Health Care Evaluation Network and article published in the *Canadian Journal of Nursing Research*.

HORSBURGH (PI), FOX, THRASHER, BEANLANDS, LOCKING-CUSOLITO, & HOWE

**CAREGIVING EXPERIENCES OF MALE AND FEMALE, WORKING AND NON-WORKING, PARTNERS OF DIALYSIS PATIENTS.**

Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- Examines the experience of caring for dialysis patients. The population being investigated included male and female, working and non-working, partners of dialysis patients.
- The experiences shared by the partners help promote a better understanding of this unique caregiving experience.

HUTCHISON (PI), ABLESON, BRAZIL, CHAMBERS, CILISKA, DENTON, EYLES, GIANCOMINI, HURLEY, PLOEG, WOODWARD, & ZEYTINOGLU

**COMMUNITY CARE RESEARCH CENTRE.**

Funded by: CIHR (May 2001 - 2006)
Stage: Ongoing

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- A partnership of public and voluntary community care agencies in Hamilton, Ontario and an interdisciplinary group of McMaster University researchers from health, social, and management sciences.
- The research program will focus on the organization and delivery of community health and social support services. Research activities will span clinical, health and social services, health policy, health systems and determinants of health research.
- Objectives include:
  - generating new knowledge in the field of community care,
  - building research and evaluation capacity in community care,
stimulating interagency and intersectoral collaboration and resource sharing in research,
providing opportunities for agency staff and managers to acquire and apply research skills, and
promoting the application of research evidence to clinical practice, management, and policy making.

IRVINE, BAKER (CO-IS), BOHNEB, ZHAN, SIDANI, TRIMNELL, & COHEN
A RANDOMIZED CONTROLLED TRIAL INVESTIGATING THE EFFECT OF TEACHING MEDICAL AND ALLIED HEALTH PROFESSIONALS METHODS AND TOOLS FOR IMPROVING PRACTICE.21
Funded by: NHRDP (January 1997 - November 1998)
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Recommends training to promote effective teamwork and training in quality improvement methods. It is also important to involve all professions in the quality improvement work of teams.
• Three papers have been submitted. One will be presented at the Annual Meeting of the Academy of Management in Chicago.

IRVINE (PI), O’BRIEN-PALLAS, SIDANI, MCGILLIS HALL, PETRYSHEN, HAWKINS, & WATT-WATSON
THE RELATIONSHIP BETWEEN PATIENT AND SYSTEM OUTCOMES AND THE QUALITY OF NURSING CARE IN ACUTE CARE HOSPITALS.24
Funded by: NHRDP (1998 - 2001)
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Phase one examined content validity, internal consistency, and inter-rater reliability (where applicable) of the instruments.
• Phase two evaluated the relationships between the structure, process, and outcome variables identified in the conceptual framework; generated a parsimonious model for predicting nurse-sensitive patient outcomes; and evaluated the construct validity of the outcome measures.
• Baccalaureate preparation of nurses, nurse experience level, and team nursing were related to nursing interventions, coordination of care, and the perceived effectiveness of care.
• Patients' functional health outcomes, symptom status, perceived health benefit, and length of stay were related to one or more of the nursing process variables (i.e., nursing intervention, care coordination, effectiveness of care).
• Results suggest that it is possible to identify and measure nurse-sensitive patient outcomes for acute medical and surgical patients. Results also underscore the importance of educational preparation of unit staff and the importance of structuring the care delivery model in order to promote teamwork and collaboration among unit staff.
• Final report submitted to NHRDP in March 2001.
• Two papers have been published based on the theoretical work that guided the development of this proposal.

IRVINE, SIDANI, & MCGILLIS HALL
AN EVALUATION OF A NEW PATIENT CARE DELIVERY MODEL AT MARKHAM STOUFFVILLE HOSPITAL.1,1
Funded by: Markham Stouffville Hospital (March 1999 - January 2000)
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Results will provide useful information about the effectiveness of a model for organizing nursing care and scheduling nursing personnel in order to improve the continuity of nursing care on inpatient units in acute care hospitals.
• A secondary outcome of the project will be to provide data on the reliability and validity of a nursing sensitive outcome measure that the research team has developed.
• A paper describing the new care delivery model and the results of the first phase of data collection is being presented at Mount Sinai Hospital.

IRVINE (PI), SIDANI, MCGILLIS HALL, WATT-WATSON, MALLETTE, & LASCHINGER
NURSING SENSITIVE OUTCOMES: A LITERATURE SYNTHESIS.1,4
Funded by: Ontario MOHLTC (2001)
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Identified the essential characteristics or attributes defining each outcome concept.
• Identified the instruments that have been used to measure each outcome concept in acute, community, and long-term care settings.
• Reviewed the content of the instruments and assessed their congruence with the essential attributes of each outcome concept.
• Critically reviewed the instruments for reliability, validity, responsiveness to change, sensitivity to nursing care, and clinical utility.
• Recommended that a nursing job satisfaction pilot study be conducted in Ontario, using multiple measures to determine the “best” ongoing measure for nursing job satisfaction. The instruments suggested for use in this pilot study included two nursing occupation-specific measures - the McCloskey/Mueller Satisfaction Scale (MMSS) and the Nursing
Job Satisfaction Scale (NJS), and the work-related satisfaction measure - the Job Descriptive Index (JDI).

- Final report submitted to the MOHLTC and a proposal to publish the final report as a book has been submitted to Sage Publications.
- The findings were disseminated to researchers and policy makers at an invitational symposium in March, 2001.

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**IRVINE DORAN (PI), PICKARD, HARRIS, COYTE, MACRAE, LASCHINGER, & DARLINGTON**

**MANAGEMENT AND DELIVERY OF COMMUNITY SERVICES IN ONTARIO: IMPACT ON THE QUALITY OF CARE AND QUALITY OF WORKLIFE OF COMMUNITY BASED NURSES.**

Stage: Data collection

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- Phase one objectives are to: 1) assess the extent of private sector involvement in the delivery of home care nursing services, 2) describe the method for contracting professional nursing services within the 43 Ontario Community Care Access Centres, 3) describe the method for monitoring service agreements, and 4) refine the variables and sampling strategy for phase two.
- Phase two objectives examine the relationship between contract structural variables and variables for: 1) quality of care (process), 2) client outcome, 3) cost, 4) nurse outcome, and 5) process and client and nurse outcome.

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**IRVINE DORAN (PI), SIDIANI, WATT-WATSON, O’BRIEN-PALLAS, CAMERON, STEVENS, GALLOP, & POMERLEAU**

**AN INVESTIGATION OF THE NURSE CASE MANAGER ROLE AT THE ONTARIO WORKPLACE SAFETY AND INSURANCE BOARD.**

Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- Examined the definition and implementation of the case manager role.
- Investigated factors that influence the development and implementation of the case manager role.
- Investigated structures that are developed, within the system, for the case manager to coordinate communications, client services, and workplace responses.
- Identified outcomes associated with the case manager role.
- Final report submitted to WSIB.
• Seminars to disseminate the findings within the Board are planned for the fall of 2001.
• Papers for publication to disseminate the findings to the practitioners within the field and to researchers are under development.

Jaffrey, Van Berkel (Co-PIs), Thomas, & Ciliska
Community Action Program for Children.1,6
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Development of several different community interventions for healthy child development.
• Evaluation and further implementation of several childhood interventions.
• Contributed to further policy development of “Healthy Babies, Healthy Children” and “Early Years”.

Kerr, Laschinger (Co-PIs), Thomson, O’Brien-Pallas, Shamian, McPherson, Koehoorn, & LeClair
Monitoring the Health of Nurses in Canada.2,4
Stage: Analysis and report writing
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To study the feasibility of establishing an ongoing system to monitor the health of nurses.
• To describe the most important factors that contribute to work related health problems; to identify perceived gaps in this information; to propose a mechanism for monitoring nurse health based on the project synthesis and stakeholder input.
• Relevant to health policy makers and health care administrators who will need evidence-based research when developing performance indicators.
• Data can be used by decision-makers to monitor the effects of workplace conditions on nurses health, enable them to detect early signs of work related negative health outcomes, and facilitate timely initiation of actions to ameliorate negative effects of workplace conditions.
• Conclusions drawn from this research will address concerns of financial relevance and policy suggestions, to directly aid decision-makers as they make organizational level policy changes.
• Invited to present research to the Canadian Nurses Advisory Group (CNAC) in Newfoundland 2001, Nursing Leadership Institute, and numerous conferences.

Kerr (PI), Mustard, Franche, Laschinger, Shamian, & Schwartz
Exploring Stress Differences Between Full-time and Part-time Nurses.1,1
Stage: Data collection
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Explore the differences in physiological stress levels, measured by mean salivary cortisol levels, between full and part-time nurses.
• Determine if any relationships exist between the major questionnaire instruments for work and life stressors and salivary cortisol.
• A better understanding of the consequences of stress in the work environment could lead to the development of more effective intervention strategies to improve job satisfaction and reduce stress at work which will assist in the attraction and retention of nurses.

Kerr (PI), Shamian, Thomson, O’Brien-Pallas, Sochalski, Aikens, Koehoorn, Hogg-Johnson, & Shannon
The Relationship Between Workplace Effort and Rewards and Various Outcomes Including Stress, in a Survey of Ontario Acute Care Hospitals.2,4
Funded by: HEALNet (1999 - 2001)
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Determine if there is an association between perceived efforts and rewards associated with work and the measurement of the key sub-scales of a work-related burnout scale within the acute care hospital nursing survey population in Ontario.
• Nurses reported high levels of absence due to burnout, musculoskeletal pain, and illness.
• Nurses reporting an imbalance between the efforts and rewards associated with work were more likely to report all health problems examined.
• The proportion of variance accounted for was much higher within rather than across hospitals.
• One working paper completed for the Institute for Work & Health.
• Refereed conference presentation at the Canadian Psychological Association Annual Convention (June 2000).
KIRSH (PI), BEARDWOOD, COCKBURN, DURAN, FENECH, JEAN-BABTISTE, LEBLANC, MCKEE, & POLANYI

PARTICIPATORY RESEARCH BY INJURED WORKERS: FROM REFLECTION TO ACTION ON COMPENSATION AND RETURN-TO-WORK ISSUES. 
Funded by: Workers Safety and Insurance Board Joint Grant, University of Toronto (1999 - 2001)
Stage: Report writing

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To enhance the capacity of injured workers to identify, understand, analyze, and address their experienced concerns regarding barriers to return to work, and to formulate policy recommendations.
• The findings suggested that injured workers found the compensation process stressful.
• A core of injured workers considered that there were problems in the return to work process as they had problems obtaining a diagnosis, appropriate treatment, and rehabilitation. This was related to: a lack of knowledge on the part of health professionals regarding occupational health problems, especially invisible injuries; an inability to obtain treatment quickly; the attitudes of some health professionals; an input by injured workers and their family doctors into when the worker should return to work and a lack of support for injured workers. In many cases these problems resulted in increased stress and depression for injured workers.

LASCHINGER (PI), FINEGAN, FALK RAFAEL, & HAVENS

WORKPLACE EMPOWERMENT OF HEALTH PROFESSIONALS IN RESTRUCTURED HOSPITAL WORK ENVIRONMENTS. 
Funded by: SSHRC (1999 - 2003); funding is for a program of studies related to workplace empowerment
Stage: Various stages

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Designed to investigate empowerment in nursing work environments using Rosabeth Moss Kanter's organizational empowerment theory.
• Current directions of this research involve pilot testing of a workplace empowerment intervention and determining the applicability of Kanter's theory in social work, nursing, occupational therapy, and physical therapy.
• Staff nurses perceived work empowerment significantly related to psychological empowerment and trust in management (Cline, 2001).
• Relationship between empowerment and ICU nurses' self-rated work effectiveness not moderated by Type A personality factor (DeVries-Rizzo, 2001).
• Empowerment and collective accountability explain significant variance in nurse assessed patient care quality (Tuer-Hodes, 2001).

LASCHINGER (PI), FINEGAN, & SHAMIAN
TESTING A WORK EMPOWERMENT MODEL IN NURSING HOSPITAL SETTINGS.
Funded by: SSHRC (1997 - 2001); funding is for a program of studies related to empowerment in nursing environment
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Designed to investigate nursing work environments using Rosabeth Moss Kanter's organizational empowerment theory.
• Workplace empowerment strongly related to factors commonly associated with nursing turnover. Creating workplaces that provide nurses' access to these structures may be a useful recruitment and retention strategy for attracting and retaining autonomous professional nurses.
• Provides more insight into the nature of power in nursing organizations.
• Assists in the understanding of the acquisition and use of power by nurses to better influence the health care system and control of nursing work.

Completed studies (2001):
• Staff nurses perceived work empowerment significantly related to trust in management and job satisfaction (Laschinger, Finegan, Shamian, & Casier).
• Staff nurses' perceptions of work empowerment significantly related to psychological empowerment and job strain (Laschinger, Finegan, Shamian, & Wilk).
• Staff nurses' perceptions of structural and psychological empowerment significantly related to organizational trust, organizational commitment and job satisfaction (Laschinger, Finegan, & Shamian).

Graduate student theses:
• Nurse practitioners' perceptions of work empowerment significantly related to collaboration with physicians and managers, and job strain (Almost).
• Work empowerment and organizational-based self-esteem significant predictors of job performance self-efficacy (Williams).
LASCHINGER (PI) & KERR
PREDICTORS OF NURSES’ MENTAL AND PHYSICAL HEALTH WITH A CLIMATE OF HOSPITAL RESTRUCTURING: PILOT TESTING A MODEL.  
Stage: Data collection
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To test a theoretical model derived from the literature to explore the determinants of nurses’ health.
• Results may inform policy makers and health care administrators in the development of evidence-based strategies to preserve and improve the health of nurses.

LAVIS (PI), ABELSON, GOLD, ABERNATHY, BARTRUM, CLARK, COUTTS, & DOBBINS
TOWARD BEST PRACTICES IN RESEARCH TRANSFER.  
Funded by: MOHLTC (April 2001 - April 2002)
Stage: Data analysis
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To describe the extent to which research institutes in Canada facilitate the transfer and uptake of their research results to the target audience, and to determine the extent to which these strategies are evidence based.
• Reports to the institute and the MOHLTC regarding the status of research transfer and uptake strategies that are being used.
• Make recommendations on the strategies that should be used for various target audiences.
• Individual research institutes will gain a better appreciation for how they are performing compared to others with respect to research transfer strategies, and will be motivated in becoming more evidence-based in their approach.
• The MOHLTC will be able to provide clearer direction to their funded research institutes with respect to the types of transfer strategies that must be put into place.

LAW (PI), KING, DOBBINS, & PLEWS
STRATEGIC DECISION-MAKING IN CHILDREN’S REHABILITATION CENTRES.  
Funded: MaxBell Foundation (March 2002 - March 2004)
Status: Not yet started
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To describe the decision-making process in children's rehabilitation centres in Canada and to assess barriers to using research in program planning.
• The results of this study will assist in the development of more effective research transfer and uptake strategies.
LEE (PI), CILISKA, DOLOVICH, GAFNI, BIRCH, & HUNT

**Evaluation of the Continuity of Care at the Group Health Centre.**

Funded by: CHSRF (July 1999 - December 2000)
Stage: Data collection

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- The Group Health Centre (GHC) is a 44,000 patient multi-specialty, multi-disciplinary Health Service Organization located in the Algoma District health region.
- This study is a collaborative effort between local researchers from the Algoma District health region and a multi-disciplinary panel of McMaster University experts.
- Through the intensive evaluation of a subgroup of GHC's diabetic patients, the study will assess how the quality and cost of health care is affected by the determinant factors influencing the provision of continuity of care.
- Specific objectives include: the identification of barriers and solutions; a comprehensive evaluation of the relative benefit of capitation vs. fee for service payment, from the health services and personal (patient and provider) perspectives.
- Findings will provide researchers and policy makers valuable information regarding capitation and the resources involved.

LEFORT (PI), SIDANI, & BURKE

**Evaluating the Impact of Nurse Practitioners in Acute Care Settings - St. John's Site.**

Funded by: Health Care Corporation of St. John's, Newfoundland (1999 - 2000)
Stage: Data analysis

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- Examine the role of the nurse practitioner in an acute care setting in St. John's, NF as an extension of a previous project.
- Begin to identify the implementation of the nurse practitioner role in this province and its effectiveness in achieving high-quality, cost-effective care.
- Provide a database, based on the results of the two studies, that will delineate the contribution of the nurse practitioner role within the health care system at the national level.
LOVE (PI), HUNSBERGER, LANDEEN, COSKEY, HUNTER, & LAPPAN
HOPEFULNESS AND THE NURSE: THE ROLE OF HOPE IN THE CARE OF MEDICALLY FRAGILE CHILDREN WITH CANCER.¹²
Funded by: Niemeier Fund (2000 - 2001)
Stage: Data collection and analysis
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Three-part study to examine the role of hope for medically fragile children with cancer, his/her parents, and the care-giving nurse.
• Fifteen nurses providing care on a tertiary level pediatric oncology unit are being interviewed.
• The nurses’ perceptions regarding their understanding of hope, its meaning, how they sustained it, and how it affected their daily interactions with hospitalized children will be analysed.
• Findings will provide a greater understanding of how the concept of hope affects the nursing care of medically fragile children in an oncology setting.

MACKAY (PI), RISK, BAUMANN, & SILVERMAN
CNO’S PRACTICE SETTING ASSESSMENT PROJECT.¹³
Funded by: CNO (1996 - 1997)
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• An instrument was developed to measure quality practice settings.
• The College of Nurses of Ontario now has a program to assess quality practice settings.

MAJUMDAR, BAUMANN (Co-PIs), ROBERTS, & TAYLOR
PRIMARY HEALTH CARE FOR KWAZULU WOMEN OF SOUTH AFRICA.¹⁶
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• The main goal of this project was to increase the capacity of the Department of Nursing at the University of Natal, Durban to develop, conduct, and sustain a Primary Health Care (PHC) training programme based upon participatory and distance learning strategies.
• The project activities included the development of:
  ▶ a primary health care participatory and distance learning programme, including appropriate materials for learning (i.e., training workbook),
• a learning resource centre at the University of Natal and the establishment of an email network between McMaster and Natal Universities and KwaZulu Region, and
• strategies which will ensure the improvement of the environment and the economic status of the people of KwaZulu Region.

Markle-Reid (PI), Weir, Browne, Shadwick, Roberts, & Gafni
Frail Elderly Homecare Clients: The Cost and Effects of Adding Nursing Health Promotion Services to Homemaking.1,6
Funded by: CHSRF (September 2000 - August 2003); MOHLTC, Community Care Access Centre of Halton; McMaster University, System Linked Research Unit on Health and Social Services Utilization
Stage: Ongoing
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Main goal is to lower the number of frail elderly people in acute-care hospitals or institutions.
• Evaluate the cost and effects of adding nursing health promotion services to homemaking.
• Gather scientific evidence assessing the impact on costs and health of current eligibility policies on nursing and homecare for the frail elderly.
• Identify which frail elderly clients and caregivers will benefit from health-promotion interventions by registered nurses.
• Help decision-makers set priorities on appropriate allocation of homecare services for frail elderly homecare clients.
• The study will have implications for others with chronic conditions in the community by showing which interventions will help identify unrecognized problems and individuals at increased risk and get them appropriate care.

McCutcheon, Irvine Doran (Co-PIs), Evans, MacMillan, McGillis Hall, Pringle, & Smith
The Impact of the Managers’ Span of Control on Nursing Management Leadership and Performance.1,1
Stage: Preliminary notification of funding awarded
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Investigate the impact of managers’ span of control on leadership effectiveness, staff satisfaction, patient satisfaction, and nurse turnover.
McGillis Hall (PI), Doran, & Sidani
Development and Testing of Quality Work Environments for Nursing.24
Stage: Baseline data collection
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• An intervention study designed to provide support and assistance to hospitals as they address worklife issues for nurses.
• Assist nurse executives to develop interventions that enhance the quality of worklife for nurses in a sample of hospitals in Ontario.
• Evaluate the impact of those initiatives on patient, system quality, and nurse outcomes.
• Identify strategies for enhancing the quality of worklife for nurses in health care organizations in Ontario.
• Results will provide useful information about the effectiveness of strategies for improving the quality of worklife of nurses working in acute care settings.

McGillis Hall, Irvine (Co-PIs), Baker, Pink, Leatt, Sidani, O'Brien-Pallas, & Donner
A Study of the Impact of Nursing Staff Mix Models and Organizational Change Strategies on Patient, System and Care Giver Outcomes.22
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Little empirical research exists which examines the relationship that changing staff mix has on the registered nurse, on the hospital system and on the quality of care. This is the first research of this nature to be conducted in the Canadian hospital environment.
• Findings from this study are expected to inform the government, hospital administrators, and nurse leaders of the impact that organizational change and staff mix changes have on specific outcomes for the patient, the care giver, and the teaching hospital environment in Ontario.
• Results were an important consideration in the deliberations of the Expert Panel on Nursing and Health Outcomes, established by the Ontario MOHLTC.
• Results will be presented at a variety of forums (local, national, and international) including a proposed one-day conference in collaboration with the OHA.
McGillis Hall (PI), Irvine Doran, Laschinger, Mallette, & O'Brien-Pallas  
Funded by: MOHLTC (2001)  
Stage: Completed  

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:  
- Introduce and structure a nursing perspective within the Hospital Report.  
- Identify and test a set of measurable indicators for nursing in Ontario.  
- Identify indicators for inclusion in a system-level nursing report within the framework for a balanced scorecard and propose definitions and potential data sources for these indicators.

McGillis Hall (PI), Pink, McKillop, O'Brien-Pallas, & Thomson  
A Comparative Analysis of Models for Costing Nursing Services.  
Stage: Phase two data collection  

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:  
- Examine the costing methodology employed for nursing services in Ontario and evaluate its relationship to actual nursing services utilization in the health care sector.  
- Phase one identifies types of nurse staffing models utilized in the Ontario hospitals, restructuring strategies used in reducing nursing costs, and mechanisms used to determine past and current nursing costs within these sites.  
- Phase two will examine the accuracy of data collected by CIHI, OHRS, and OCCP for each of the study sites, determine whether inconsistencies exist, and validate the core data elements for use in this study.  
- Phase three will evaluate the relationship between nurse staffing and actual nursing costs reported to the government for funding nursing services, and the sensitivity of available data for costing nursing services in Ontario hospitals.

McGillis Hall (PI), Waddell, Donner, & Wheeler  
Outcomes of a Career Development Program for Registered Nurses at the Hospital for Sick Children.  
Funded by: Ryerson Polytechnical University (2000)  
Stage: Completed  

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:  
- To examine the impact of a career planning and development program for registered nurses on nurse and system outcomes at the Hospital for Sick Children.  
- The specific objectives are to assess whether there is significant improvement in (1) nurse outcomes of career decision-making autonomy, self-efficacy and job satisfaction and (2)
system outcomes of absenteeism, turnover and organizational commitment following participation in a career development and planning program.

- Potential outcomes of a career development program on an organizational level are nurses who are committed to the organization in which they work, and have the skills and flexibility to link personal effectiveness and satisfaction with achievement of the organization's strategic objectives.

**McKEY (PI)**

**Leadership Practices, Organizational Commitment, and Conditions of Work Effectiveness of Chief Nursing Officers in Ontario’s Restructured Hospitals.**

Funded by: NRU (2001 - Completion of dissertation)

Stage: Data analysis

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:

- To provide a foundation for nursing leadership research that focuses on leadership practices and work effectiveness.

**McKillop (PI) & Pink**

**Hospital Reporting, Funding and Performance Monitoring Practices Across Canada.**

Funded by: CIHI (2000 - 2001)

Stage: Completed

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:

- Comprehensive inventory of practices related to the management of the financial resources dedicated primarily to hospital-delivered acute care in Canada as of December 2000.

- Principal findings include:
  - Provinces are moving towards population-based methods to apportion the majority of operating funds.
  - Strong interest is being demonstrated in developing a capacity for retrospective monitoring across Canada.

- Recommendations for the future include:
  - Health service organizations should be required to report using the MIS Guidelines.
  - Outcomes of different health service organization funding approaches should have more extensive evaluation.

O’BRIEN-PALLAS (PI)

**NURSING HEALTH HUMAN RESOURCES FOR THE NEW MILLENNIUM - NATIONAL CHAIR FOR NURSING HUMAN RESOURCES.**


Stage: Ongoing

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- Work closely with provincial and federal policy decision-making bodies to ensure that evidence is used in making HHR decisions.
- Expand HHR applied research capacity in the areas of education, mentorship, research, linkage and exchange, and communication.
- Chair has met with Canadian decision-makers and established international linkages with Australia, United States, and United Kingdom to support dissemination and understanding of current HHR statistics and quality of worklife issues.
- 2000 was spent building the infrastructure to support the work of the chair.
- Chair involved in design and implementation of the Inaugural Dorothy M. Wylie Nursing Leadership Institute for nurses, administrators, and policy-makers.
- Further information about Chair activities is available at: www.hhr.utoronto.ca

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O’BRIEN-PALLAS (PI)

**PHYSICIAN HUMAN RESOURCE PLANNING COMMITTEE.**

Funded by: MOHLTC (2000)

Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- Vice Chair, Subcommittee on Modelling, Physician Human Resource Planning Committee.
- Answered questions related to downsizing medical schools and reduction in residents on nursing.

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O’BRIEN-PALLAS, ALKSNIS, TOMBLIN MURPHY, BIRCH, BAUMAN, LUBA, & MEYER

**DEVELOPMENT OF A HEALTH HUMAN RESOURCE DATABASE FOR NURSING.**


Stage: Ongoing

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- Examine current databases and determine strengths and weaknesses.
- Test and validate current HHR modeling.
- Define the current practice demands and resource utilizations of restructured settings.
- Conduct a situational analysis to determine the factors which influence nursing and HHR activities in Ontario.
Appendix B  

**Nursing Effectiveness, Utilization and Outcomes Research Unit**

- Build computer models of HHR.
- Several databases have come to the NRU, University of Toronto.
- Nursing human resource estimates based on retirement and utilization have been updated annually at the University of Toronto site.

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**O’BRIEN-PALLAS & BAUMANN (CO-PIs)**

The Nursing Task Force: Preliminary Analyses.1,1

Funded by: Ontario Ministry of Health (1998)
Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- Two papers were submitted to the Nursing Task Force and have been widely distributed in the Province of Ontario (HHR: A Preliminary Analysis of Nursing Personnel in Ontario; State of Nursing Practice in Ontario: Issues, Challenges and Needs).

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**O’BRIEN-PALLAS (PI), GERLACH, PEEREBOOM, DARLINGTON, MURPHY, & MCCARTHY**

Development of a Service Management Information System.1,2

Stage: Awaiting feedback from Psychiatric Patients’ Advocacy Office

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- Development of a client advocacy data collection tool/database.
- System implemented and under validation by Psychiatric Patients’ Advocacy Office.

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**O’BRIEN-PALLAS (PI), IRVINE, MURRAY & COCKERILL**

Factors that Influence Variability in Nursing Workload in Community Nursing.1,6

Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- To identify factors that are related to resource utilization and health outcomes in the home care setting.
- It was found that while clinical factors were predictive of visit time, other variables such as provider, organizational, and/or environmental complexity factors also explained variation in visit time and were more predictive of number of visits.
- Administrators and decision-makers can use these results to develop practice guidelines and hiring procedures that ensure the appropriate deployment of workforce resources to more efficiently and effectively meet client needs.
• Produced a fact sheet and two publications in *Nursing Economic*$.
• Evidence influenced policy-makers to move to baccalaureate entry to practice.

**O’Brien-Pallas (PI), Thomson, McGillis Hall, Pink, Kerr, Alksnis, Aiken, & Sochalski**

**Principal Decision Maker:** Shamian

**Evidence Based Standards for Measuring Nurse Staffing and Performance**.$^{1,1}$


Stage: Preparing for data collection to begin winter 2002

_Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:_

• Develop and validate evidence based, quality adjusted ranges of staffing standards for cardiac and cardiovascular nursing services.
• Develop a staffing methodology that can be adapted to other clinical settings.
• Work with our decision-making partners, the Ontario and New Brunswick MOHLTC, to establish how the MIS databases and the research study findings can be used to monitor system performance and to determine what types of data should be routinely collected from the patient's discharge record.

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**Oh, Edelson, Yang (Co-PIs), Petryshen, Gaudet, Gould, Pollok, Avendano, & Labreton**

**Partners:** Westpark Hospital and Toronto Public Health Unit

**Active Pulmonary Tuberculosis: An Integrated Disease Management Approach**.$^{2,1}$


Stage: Final report completed

_Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:_

• Developed and implemented a disease management approach to tuberculosis (TB), in the context of inter-sectoral collaboration with the public health department and other care providers, for improved clinical, organization, and ultimately population economic outcomes.
• New TB disease management program at St. Michael's Hospital, Toronto was created in collaboration with community ad hospital partners (City of Toronto Public Health Department and Westpark Hospital), on July 1, 1999.
• Various members of the research team involved with hospital and community partners to work with the MOHLTC, advisory committees, and task forces, to advocate for disease management TB programs.
• Disseminated study findings via media, conferences, and speaking engagements.

Peachey (PI) & Weir
**Impact of Nurse Managers/Leaders Empowering Behaviours on Staff Nurse Workplace Empowerment, Organizational Commitment, Absenteeism and Patient Outcomes.**
Funded by: NRU, McMaster University (2001 - 2002)
Status: Data collection

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
• To investigate the link between specific behaviours of nurse leaders and empowerment of staff nurses.
• Findings will add to the understanding of the relationship of nurse managers’ leadership behaviours and their impact on nurse effectiveness and adverse impact on the organization in terms of financial costs and quality of patient care.

Peter
**Home Care Ethics: Historical Perspectives in Nursing.**
Funded by: Sigma Theta Tau (2000)
Stage: Data analysis

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
• Uncover historical insights into ethical concerns in home care nursing.
• Publication submitted to Nursing Inquiry: The history of nursing in the home: Revealing the significance of place in the expression of moral agency.

Peter
**The Work Environment & Health of Home Care Nurses: Ethical Implications.**
Funded by: NRU, University of Toronto (2001 - 2002)
Stage: Secondary analysis of existing focus group data

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
• Limited research has been conducted that has explored the relevance of historical nursing insights in examining current ethical issues.
• Explore ethical concerns in home care nursing, specifically with respect to the work environment and health of home care nurses in a manner that is sensitive to historical dimensions and insights.
• Make an original contribution to nursing because little ethical guidance is currently available to home care nurses.

**Pink**

**THE OCOTH MANAGEMENT PRACTICE ATLAS.**

Stage: Completed

*Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:*

• Produced a compendium of financial and statistical performance indicators for all teaching hospitals in Ontario.
• Data quality is an important issue in performance measurement and there were significant variations among Ontario teaching hospitals in the calculated measures.

**Pink & McKillop (Co-PIs)**

**A FIVE YEAR ANALYSIS OF THE FINANCIAL PERFORMANCE AND CONDITION OF ONTARIO HOSPITALS.**

Funded by: ICES (2000)
Stage: Completed

*Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:*

• Evaluate the financial performance and condition of Ontario hospitals over a 5-year period.
• Identify some possible reasons for variation in performance, and, where possible, to compare the financial performance and condition of Ontario hospitals to US hospitals during the same period of time.
• Findings will be pertinent to the theory and practice of hospital funding, scorecard and report card development, accounting and audit practices, and ICES research that incorporates MIS financial or statistical data.
• Results of the analysis should be of interest to hospital managers, MOHLTC, OHA, and the government of Ontario.
ROSENBAUM (PI), LAW, DOBBINS, & PLEWS  
**INFORMATION TRANSFER: WHAT DO DECISION-MAKERS WANT AND NEED FROM RESEARCHERS.**¹,⁴  
Funded by: MOHLTC (April 2001 - April 2002)  
Stage: Data collection  
*Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:*  
- To describe the information needs of decision-makers in childhood disability.  
- Report to MOHLTC and other childhood disability researchers outlining recommendations for presenting research results to decision-makers and summary of the needs of decision-makers.  
- Results will assist childhood disability researchers in Ontario and Canada in communicating key areas of interest to decision-makers so that future research can address these issues.  
- Researchers will better understand how to present research to decision-makers so as to promote its transfer and uptake.

ROYLE (PI), CILISKA, BAUMANN, DEBER, NOESGAARD, BOBLIN-CUMMINGS, BARNSLEY, HAYWARD, MITCHELL, EAGLE, & UNDERWOOD  
**PROVINCE WIDE NURSING PROJECT RESEARCH CENTRE.**¹,¹  
Stage: Completed  
*Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:*  
- Report and recommendations to MOH, resulted in transfer of money to RNAO for clinical guideline development and implementation.

SEMOGAS (PI), MAHONEY, & THOMAS  
**PREVENTING HOMELESSNESS AMONG STREET YOUTH 16-25 YEARS OF AGE:**  
**GYBE PROJECT.**²,¹  
Stage: Data collection  
*Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:*  
- This study hopes to empower street youth to make lasting changes to get off the streets. It will include a primary, secondary, and tertiary prevention strategy.  
- Emphasis is placed on enabling these youths to make decisions about their own needs and outlining concrete steps to address them.  
- This study will utilize the best practice model called the ‘Back Door’ in Calgary, Alberta, and also include health principles from the Ottawa Charter for Health Promotion (1986).
The strategies will help reduce homelessness among participants, reduce at risk health behaviours and increase health promotion behaviours among participants, and identify participants who wish to seek further post-secondary education.

**SHAMIAN, O'BRIEN-PALLAS (CO-PIs), KERR, KOEOHORN, THOMSON, & ALKSNIS**

**Effects of Job Strain, Hospital Organizational Factors and Individual Characteristics on Work-Related Disability Among Nurses.**

Funded by: Ontario WSIB (1999 - 2001)
Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- Develop recommendations for job strain and organizational interventions aimed at preventing or reducing work-related risk factors that can be shared with stakeholders in order to improve the worklife and health of Ontario RNs.
- Merged and analyzed administrative databases including WSIB hospital claim rates, the MIS trial balance record from the MOHLTC and data from a large cross-sectional survey of acute care hospital nurses in Ontario.
- Conducted focus groups with nurses and interviews with hospital administration at 10 acute care hospitals in Ontario. Discussed factors contributing to, and potential solutions for, high rates of musculoskeletal injuries, stress, and absenteeism among nurses.
- Obtained nurses’ perspectives on the presence and effectiveness of potential workplace interventions developed from earlier phases of the study aimed at enhancing health and safety in their work environment.

**INTERNATIONAL LITERATURE REVIEW OF NURSES HEALTH ISSUES.**

Funded by: NRU, University of Toronto (July 1999)
Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- Numerous studies, in many countries have suggested that organizational factors, in addition to the traditional job characteristics that have been studied in the past such as shift work, physical environment etc., may contribute to the health of nurses.
- The purpose was to review the current literature on the prevalence of injury and illness in hospital nurses and to gain a greater understanding of factors that may contribute to nurses' health.
- This literature review will inform policy makers and administrators of potential organizational strategies that improve the health of nurses and identify potential areas of study for researchers.
SHAMIAN & THOMSON (PIs)

**Nurse Staffing: Current Issues and the Impact on Patient Outcomes and Cost.**¹¹
Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- Identify the impact of nursing staff volumes, skill mix and organizational factors on patient outcomes and cost.
- Provide an overview of current Canadian research in progress that we are aware of and the identification of future research needs.
- Provide a synthesis of the issues related to nurse staffing and highlight the conclusions that can be drawn and when possible will suggest practical solutions to resolve these issues.

SHAMIAN (PI) & THOMSON

**Qualitative Analysis of the Free Text Comments from a Nursing Survey of Over 8,000 Acute Care Hospital RNS Conducted in 98/99.**²²
Funded by: NRU, University of Toronto (2001)
Stage: Final report submitted

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- Conducted survey in conjunction with an international research project to explore the impact of hospital staffing and organizational characteristics on patient outcomes.
- Comments made by nurses completing the survey provided a wealth of untapped information about nurses’ perceptions of the worklife environment, which adds to our understanding of their answers to the defined questions on the survey.
- Data entered into NUDIST software to provide a comprehensive analysis of nurses’ comments by categorizing the comments into logical grouping and identifying the frequency.

SIDANI

**Examining the Utility of Random Assignment.**¹⁴
Funded by: NRU, University of Toronto (2000 - 2001)
Stage: Data collection

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- Examine the extent to which random assignment of participants to study groups maintains initial group equivalence.
- Findings will inform researchers of the utility of random assignment in effectiveness research.
SIDANI (PI), EPSTEIN, BOOTZIN, MORITZ, & SECHREST

**ALTERNATIVE METHODS FOR CLINICAL RESEARCH.**

1.4

Stage: Data collection

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- Determine the extent to which accounting for the influence of client characteristics, preference for treatment, and dose of the intervention on outcomes, affects the validity of conclusions in intervention effectiveness research.
- Examine the utility of the theory-driven approach as an alternative to the RCT for evaluating the effectiveness of interventions.
- Results will inform researchers of alternative strategies for designing intervention evaluation studies that incorporate features of everyday practice while maintaining internal validity. The goal is to enhance the clinical relevance of research.

SIDANI, IRVINE (Co-PIs), O'BRIEN-PALLAS, DICENSO, MITCHELL, PORTER, REDELMERIRER, GRAYDON, SIMPSON, MCGILLIS HALL, & NAGLE

**THE ACUTE CARE NURSE PRACTITIONER: FACTORS THAT INFLUENCE ROLE IMPLEMENTATION, CLINICAL AND ORGANIZATIONAL OUTCOMES.**

1.3

Funded by: NHRDP (June 1998 - December 1998)
Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- Study revealed many influencing factors in the practice of the acute care nurse practitioner, including conflicting demands, workload, unclear role definition, inadequate reimbursement, etc.
- Findings presented at participating hospital sites.

SIDANI (PI), IRVINE, PORTER, LEFORT, O'BRIEN-PALLAS, & ZAHN

**EVALUATING THE IMPACT OF NURSE PRACTITIONERS IN ACUTE CARE SETTINGS.**

2.1

Stage: Data collection

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**
- Evaluate, for the first time, the effectiveness of the nurse practitioners' services in achieving expected quality of care and cost outcomes.
- Examine the practice pattern of nurse practitioners, including technical and interpersonal style, and the effects of their practice pattern on patients' functional and clinical outcomes, and on the system's outcomes of satisfaction with care and costs of care.
• Provide empirical evidence for a) identifying best practices for decision-making regarding the institution of the ACNP role in other acute care agencies in Ontario or other provinces; b) informing policy makers about the value of the role so that appropriate regulations (e.g., scope of practice and reimbursement) are developed; and c) refining the nurse practitioner role functions, responsibilities, and utilization within the health care system.

SPENCER (PI), ABERNATHY, BELAND, BIRCH, BURBIDGE, CHAMBERS, DENTON, FRENCH, GAFNI, JOSHI, LIAW, MACPHERSON, MCDONALD, MAGEE, MARTIN-MATTHEWS, MOORE, MOUNTAIN, PLOEG, RAINA, ROBB, ROBERTSON, ROSENBERG, ROSENTHAL, SCARTH, STODDART, & VEALL

SOCIOECONOMIC DIMENSIONS OF AN AGING POPULATION.¹¹
Stage: Data analysis and manuscript preparation

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Multiple research teams are investigating various dimensions of economic security and aging.
• Research areas include demographics, health, family and work, retirement and pensions.
• Analysis of large Statistics Canada existing data sets being conducted to address questions posed by teams.
• A series of working papers are available and numerous manuscripts have been published or are under review.
• Findings will influence policy on aging in Canada.

STERN (PI), CHOCHINOV, & WEIR
CANADIAN VIRTUAL HOSPICE: KNOWLEDGE DEVELOPMENT AND SUPPORT IN PALLIATIVE CARE.¹⁶
Funded by: The Office of Health and the Information Highway, Privacy and Knowledge Development Division, Ottawa (2001)
Stage: Ongoing

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To enhance and facilitate access to care information, products and services for terminally ill Canadians, their families and caregivers.
• This internet-based interactive network will enable the provision of mutual support and facilitate the exchange of information, communication and collaboration between and among health care professionals, palliative care researchers, the terminally ill and their families.
STERN (PI) & WEIR
A STUDY TO DETERMINE THE PREVALENCE OF USE OF EMERGENCY DEPARTMENT SERVICES BY COMMUNITY PALLIATIVE ONCOLOGY PATIENTS.\textsuperscript{2,4}
Funded by: System Linked Research Unit (January - December 2000)
Stage: Report writing

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To determine the frequency of use of emergency department services by palliative patients.
• Will evaluate the costs and utilization of services.
• Will provide useful information for decision-making related to the evaluation and management of these services.

STERN (PI), WEIR, MUELLER-BUSCH, STEWART, & BLAND
PROFILE OF PALLIATIVE ONCOLOGY PATIENTS USERS OF EMERGENCY ROOM SERVICES: CORRELATES OF USE AND COST ESTIMATES.\textsuperscript{2,4}
Funded by: System Linked Research Unit, McMaster University (2000 - 2001)
Stage: Report writing

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To identify the characteristics of palliative cancer patients in the community, their reasons for accessing emergency room services at Joseph Brant Memorial Hospital, and the costs associated with such service use through a retrospective chart review of the hospital and Community Care Access Centre records.

STRONG (PI) & DOBBINS
TOWARDS BEST PRACTICE OF FUNCTIONAL ASSESSMENT: AN INNOVATIVE MODEL FOR RESEARCH DISSEMINATION.\textsuperscript{1,4}
Funded by: WSIB (2001 - 2002)
Stage: Ongoing

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• This study will evaluate the impact of a research transfer and uptake strategy on the use of functional assessments among injured workers.
• Evidence of the use of research in determining the most appropriate uses of functional assessments, improved communication between various stakeholders during the functional assessment process.
• Results of this study will provide a framework for addressing changes related to return to work for injured workers. It will impact clinically on how clinicians go about doing functional assessments, and how these assessments are used in the workplace to assist workers to return to work.

• This study has the potential to have an impact on disability management at the provincial level.

THOMAS (PI), CILISKA, DICENSO, & WADE

PROVINCIAL PUBLIC HEALTH RESEARCH EDUCATION AND DEVELOPMENT PROGRAM - EVIDENCE FOR EFFECTIVENESS PROJECT.1,6

Funded by: Public Health Branch, MOHLTC & the City of Hamilton (April 1997 - March 1999 with extended funding until March 2001)
Stage: Ongoing

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:

• The Public Health Research and Education Development Programs (PHRED) in Ontario work collaboratively on the Public Health Effectiveness Project.

• Objectives are to produce and disseminate high quality systematic reviews and summary statements of relevance to public health policy development and practice.

• A current example is a review underway of primary prevention of eating disorders.

• Input regarding the prioritizing of topics for the reviews is sought from primary practitioners and policy makers in Public Health throughout Ontario.

• Products have been disseminated in a variety of ways and have been used for evaluation of the Mandatory Program Guidelines as well as for program planning at the local level.

TOMBLIN MURPHY, O’BRIEN-PALLAS (Co-PIs), BIRCH, PRINGLE, ROOTMAN, DARLINGTON, KEPHART, & PENNOCK

PRINCIPAL DECISION MAKER: SHAMIAN

HEALTH HUMAN RESOURCE PLANNING: AN EXAMINATION OF RELATIONSHIPS AMONG NURSING SERVICE UTILIZATION, AND ESTIMATE OF POPULATION HEALTH AND OVERALL STATUS OUTCOMES IN THE PROVINCE OF ONTARIO.1,1

Stage: Database development

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:

• Will ask: “What are the effective mechanisms and policies for establishing, monitoring, and predicting the variety of needs for nursing services?”

• Explore the relationship among health status of Ontarians and self-reported use of nursing and hospital services and nursing service utilization as reported in the MIS data in community hospitals in Ontario.
• Explore the relationship between nursing service utilization and variations in mortality, unexplained readmission, length of stay, and patient satisfaction.
• Examine the concurrent validity of two health proxy measures (SF-36 and a subset of the National Population Health Survey (NPHS)).
• Develop a population needs indicator of nursing services.
• Determine the added value of including selected SF-36 health status indicators in the NPHS to enhance its use for nursing needs-based approaches to population health modeling.
• Will develop a new needs-based approach for determining future HHR requirements.
• Findings will assist decision-makers across Canada to determine methods for modeling and will provide specific direction for policy decision-makers at the Ontario MOHLTC.

VAN BERKEL & DICENSO (CO-PIs)

EVALUATION OF THE HAMILTON-WENTWORTH REGIONAL PUBLIC HEALTH DEPARTMENT HIV PROGRAM - PROTOCOL DEPARTMENT.16
Funded by: The Ontario HIV Treatment Network, (April 1999 - June 2000)
Stage: Completed

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• The purpose of this study was to examine the accessibility, utilization and acceptability of the HIV reduction services (anonymous HIV testing, free condom distribution, and John school) in the Hamilton-Wentworth region.
• Only half of the prospective clients surveyed were aware of the anonymous HIV test sites in Hamilton. Most of those who considered themselves at high risk have never been tested.
• Study respondents indicated the best ways to inform the public about HIV services were publically displayed posters, media, and word-of-mouth.
• Other findings: not everyone who should be aware is aware of anonymous HIV test sites in the region; those who do attend test sites prefer anonymous testing; and although youth know they can get free condoms, they don’t always know where the clinics are.
• It is necessary to find better ways to inform the public about the HIV reduction services: anonymous HIV testing, free condom distribution, and John school.
VAN BERKEL & DICENSO (CO-PIs)  
**EVALUATION OF THE HAMILTON-WENTWORTH REGIONAL PUBLIC HEALTH DEPARTMENT, SEXUAL HEALTH PROGRAM.**¹,⁶

Funded by: Hamilton-Wentworth Department of Public Health Services, Teaching Unit (January 1999 - December 2001)
Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- This study was a pilot evaluation which focused on the collection of data related to: adolescent pregnancy rates, demographic risk indicators of centre catchment areas, demographic characteristics of centre clients, awareness of Information and Sexual Health Centres (ISHC) services, and client satisfaction.
- There were several findings in this study:
  - Among the Hamilton-Wentworth teen population, pregnancy rates were higher in 1995 than provincial rates.
  - Rates of low-income, single parenthood and youth unemployment were higher in the downtown catchment area than regional and provincial rates. The majority of clients live with their parents. At least three-quarters of clients had had sexual intercourse prior to attending an ISHC, 87% had used some form of birth control, 37% of clients who were sexually active had not used condoms, and 77% of clients reported tobacco use.
  - A large proportion of high school-aged students were aware of the ISHCs, with over half indicating that they would send a friend to an ISHC if the friend was in need of information about birth control and STDs.
  - The majority of ISHC clients were highly satisfied with the services in the ISHCs.
- Several practice and research recommendations were made as a result of this study.

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WEIR (PI), HOWE, LUDWIN, BROWNE, ROBERTS, & GAFNI  
**THE PREVALENCE CORRELATES AND COMPARATIVE COSTS OF DEPRESSION IN PATIENTS WITH END-STAGE RENAL DISEASE UNDERGOING DIALYSIS.**²,⁴

Funded by: Kidney Foundation of Canada (1999 - 2000)
Stage: Completed

**Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:**

- Determined the prevalence and treatment of depressive disorders in ESRD patients in a region of chronic dialyses program.
- Identified the characteristics of these patients that are most useful in explaining their psychological adjustment to their condition.
- Determined the comparative costs of treating or not treating the depressive disorder.
WEIR (PI), THOMPSON, WALSH, MCCOLL, BROWNE, BYRNE, ROBERTS, GAFNI, & MERRILL
THE EFFECTIVENESS AND EFFICIENCY OF THE QUICK RESPONSE PROGRAM.\textsuperscript{2,1}
Funded by: Home Care Programme for Metropolitan Toronto, Humber Memorial, &
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• This study determined that the Quick Response Initiative was equally effective to
conventional Emergency Department care in terms of health status, safety, and high
satisfaction with health care services.
• The shift in care from acute hospital to community services did not lead to a reduction in
overall health care costs.

WILLIAMS (PI) & DEBER
PRESCRIPTIONS FOR PEDIATRIC HOME CARE: ASSESSING THE IMPLICATIONS OF
PROVINCIAL AND LOCAL VARIATIONS IN THE FUNDING, ALLOCATIONS AND DELIVERY
OF HOME AND COMMUNITY CARE ON CHILDREN WITH COMPLEX CARE NEEDS.\textsuperscript{1,6}
Stage: Data collection
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• “Map” and examine patterns and implications of alternative approaches to the funding,
allocation, and delivery of home and community care to complex care needs children on a
province by province basis.
• Evaluate, from the perspectives of families, providers, and local authorities, the benefits
of alternative approaches now being employed.
• Pilot a framework for systematically comparing the costs of different approaches.
• Such variations have profound implications for families, who take most of the
responsibility for the care, development, and protection of children; for providers, who
are called upon to supply high quality, specialized services in diverse settings; and for
governments responsible for such services.

WILLIAMS (PI), DEBER, COYTE, FLOOD, HOLLANDER, KUSHNER, LUM, RAPPOLT, & VERRIER
FROM HOSPITAL TO HOME AND COMMUNITY: ANALYZING LOCAL REALITIES AND
GLOBAL LOGICS IN CANADIAN HEALTH CARE.\textsuperscript{1,6}
Funded by: SSHRC (2001 - 2004)
Stage: Data collection
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• “Map” the ongoing shift in health care from hospital to home and community on a
province by province basis.
• Document and analyze the political dynamics of this shift among elite decision-makers and the general public.
• Examine, using Ontario as a case study, the extent to which this shift coincides with a reduction in the provincial state’s role in the health field and greater reliance upon local agencies subject to the logic of globalized markets.
• Assess the implications, not only for theoretical understandings of the role of the post-war state, but for public access to health care services, the social distribution of the costs of illness, and social cohesion.
• Study the implications for government, local agencies, and individual consumers of the ongoing shift across Canada from hospital to home and community.

WILLIAMS (PI), DEBER, LUM, RAPPOLT, & VERRIER
RESETTING THE INSTITUTIONAL AND STRUCTURAL BALANCE IN CANADA’S HEALTH SYSTEM: PRIVATIZATION, GLOBALIZATION AND THE CASE OF REHABILITATION SERVICES IN ONTARIO.
Funded by: SSHRC (2001 - 2004)
Stage: Data collection

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To obtain empirical data which will allow us to document and analyze the shift of rehabilitation services beyond the boundaries on public Medicare.
• To elaborate the application of "neo-institutional" theory to the current and future role of the Canadian state in health policy fields characterized by commercialization and globalization.
• Focusing on the specific case of rehabilitation services in Ontario, this program of research analyzes the theoretical and applied policy implications of ongoing shifts in the institutional and structural balance in Canadian health care.

WILLIAMS (PI), MURPHY, & MEYER
DEVELOPMENT OF A NURSING EDUCATION DATABASE FOR ONTARIO AND ANALYSIS OF 2000 DATA.
Funded by: NRU, University of Toronto (2001 - 2002)
Stage: Database review and data collection

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Expand and continue a previous project that analyzed the capacity of Ontario university and college nursing programs to support the new entry to practice requirement for RNs.
• Develop a valid and reliable nursing education database to report on past, current, and future supply of RNs and RPNs in Ontario.
• Collect data from all Ontario secondary schools, colleges, and universities for 2000 for analysis and reporting.
Review, analyze, and report on existing nursing education databases.
Address the multiple problems that confound Ontario data, including: poor validity and reliability of surveys, multiple data collectors, difficulty in comparisons across time and programs, data collection fatigue by programs with resulting compliance problems, changes in programs over time, and the lack of national or provincial RPN data collection.
Results will be utilized by key stakeholders in Ontario nursing human resource planning in managing the nursing shortage and will inform the supply side equation of the planning and modeling activities of the NRU.

WILLIAMS (PI) & O’BRIEN-PALLAS
COMPARATIVE ANALYSIS OF UNIVERSITY AND COLLEGE PROGRAM CAPACITY ISSUES RELATED TO THE NEW ENTRY TO PRACTICE REQUIREMENTS.1,1
Supported by: The Council of Ontario University Programs in Nursing, the Heads of Nursing & the Heads of Health Sciences from the Colleges of Applied Arts and Technology (2000)
Stage: Continuing; has been subsumed under the previous project, Development of a Nursing Education Database for Ontario and Analysis of 2000 Data.
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Second phase of a project designed to provide supply information about numbers of students and faculty and other capacity issues for the purpose of modeling HHR and to use the information obtained to explore capacity issues related to baccalaureate entry to practice.
• To provide a similar analysis of capacity issues in the college sector for 1998 followed by a detailed comparative analysis of both sectors.
• The first phase of the project was completed in 1999 in partnership with the Council of University Programs in Nursing.
• The university portion of the project focused on four major areas: capacity issues (student, faculty, space, and research), curriculum issues, maintenance of nursing supply issues and funding issues, based on 1998 data.

WILLIAMS & O'BRIEN-PALLAS (Co-PIs)
ENTRY TO PRACTICE CAPACITY ISSUES.1,1
Funded by: Council of Ontario University Programs in Nursing (April - October 1999)
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Background document analyzing and summarizing issues surrounding capacity in view of upcoming collaboration.
• Data are being used to assess system capacity to produce required number of future nurses. Faculty retirements over the next 5-10 years will influence the capacity of the Ontario system to expand training capacity.

YOUNG (PI), DICK, MCCUIGAN, BOOTH, IRVINE DORAN, WILLIAMS, FILLER, DAUB, & DALY
INTEGRATION OF TELETRIAGE AND HOME CARE SERVICES INTO A SUSTAINABLE SERVICE FOR TORONTO CHILDREN.\(^{1,5}\)
Funded by: Ivy Foundation (2000 - 2001)
Stage: Data collection
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• Evaluate the integration of four clinical services at the Hospital for Sick Children to share a common teletriage call centre.

ZEYTINOGLU (PI) & DENTON
WORKPLACE CHANGE AND WORKERS HEALTH IN HOME CARE WORK.\(^{1,1}\)
Stage: Completed
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To examine workers’ health and well-being in the context of change and restructuring that is taking place in the home care sector.
• Results of this study are expected to influence decision-makers at all levels, and inform the Workplace Safety and Insurance Board of occupational health issues in home care.
• Findings will inform both the academic community and society.
• This study’s findings informed the initial stages of the study: Nonstandard and Flexible Labour Contract Issues in Workplaces.

ZEYTINOGLU (PI), SEATON, & MORUZ
OCCUPATIONAL HEALTH OF WOMEN IN NON-STANDARD EMPLOYMENT.\(^{1,1}\)
Stage: Ongoing
Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• The purpose of this study is to examine factors affecting stress among nonstandard (part-time and temporary) workers in retail trade, and to examine how stress, in turn, affects individual physical and mental health, and the workplace in terms of turnover, absenteeism, conflict in the workplace.
• The implications of this study are to affect the decision-makers at the federal level; and to inform the union representing the workers in the field and the employers of occupational health concerns of these workers.

ZEYTINOGLU (PI) & WEBER
NONSTANDARD AND FLEXIBLE LABOUR CONTRACT ISSUES IN WORKPLACES. 1.1
Stage: Data collection

Purpose/Outcomes/Deliverables and Implications for clinical practice, policy, and research:
• To examine employer flexibility policies and employee outcomes in nonstandard jobs.
• To inform the theory and research in the field, and contribute to theory development.
• The findings will make significant contributions to policy formation and professional practices in Canada and elsewhere.
APPENDIX C

PUBLICATIONS

FACT SHEETS

The NRU’s fact sheets are intended to give a concise overview of important issues or research related to the federal and provincial healthcare system.\(^9\) New fact sheets are continually being developed and produced.

Planning: The process of estimating the number of health personnel and the kinds of knowledge, skills, and attitudes required to achieve predetermined health targets.

- Access to Health Care and Health Care Utilization
- The Aging Nursing Workforce: Some Figures and Implications for the Future
- Fact Sheet on Health Human Resource Planning
- Health Human Resources - An Analysis of Forecasting Models
- Health Human Resources - Application of Projection and Forecasting Models to Nursing
- Health Human Resources Planning: An Overview of Canada’s Health Care System
- Health Human Resources Planning: Historical Overview of Healthcare in Ontario
- Health Human Resource Planning - Literature Review: The Impact of Hospital Restructuring on Patients, Care Providers, and Health Care Costs
- How Socio-Economic Status Influences Health Care Utilization
- Nurse Supply in Ontario
- Recruitment and Retention
- Registered Practical Nurses in Ontario
- A Review of “Health Human Resources: A Preliminary Analysis of Nursing Personnel in Ontario,” a recent report by the Nursing Effectiveness, Utilization and Outcomes Research Unit
- Risk Behaviour and Health Care Utilization
- The Effect of Aging on the Health Care System

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\(^9\)The fact sheets have been organized following Hall’s (1993) HHR framework of planning, production and management.

• The Influence of Physician Supply, Payment Schemes and Alternative Providers on Health Care Utilization
• What Factors Can Influence Health Care Utilization?

Production: Assessing the quantity and quality of existing educational programs including curricula, physical facilities, faculty, and enrolment.

• Baccalaureate Entry to Practice
• Collaborative Baccalaureate Nursing Programs in Ontario–A Key Strategy in Achieving Entry to Practice
• Post RN Programs
• The Impact of Health Care Reform on Nursing Student Clinical Placements

Management: Mobilization, motivation, development, and fulfilment of human beings in and through work. Concerned with working environments, staffing patterns, incentives.

• Acute Care Nurse Practitioners
• Assessing the Impact of Nursing Care in the Community Setting
• Assessing the Impact of Nursing Care in Acute Care Hospitals - The Nursing Role Effectiveness Model
• Continuing Education in Nursing
• Health Human Resource Planning - The Unregulated Care Provider
• Impact of Technology
• Labour Issues
• Nursing Workload and Outcomes of Care in Community Nursing
• Primary Care Nurse Practitioners
• Quality Practice Settings
• Staff Mix Patterns in a Sample of Toronto Area Hospitals
• The Relationship Between Nurses’ Job Design, Role Performance and Outcome Achievement in Acute Care Settings
• Using Information Technology to Enhance Nursing Practice
WORKING PAPERS

The following working papers from December 1996 to November 2001 are available through the NRU.

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<thead>
<tr>
<th>Number</th>
<th>Title</th>
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<tbody>
<tr>
<td>01-01</td>
<td>A pilot study: Work of nursing personnel in a government hospital in the province of Sindh, Pakistan - Final report.</td>
<td>Kanji, Virani, Pirani, Sumar, Rahemtulla &amp; Sergeant</td>
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<td>01-02</td>
<td>Survey of Registered Nurses in Pakistan with University degrees - Final report.</td>
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<td>Returning to the workplace: The post-educational experience of the DWHP Programme Fellows - Final report.</td>
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<td>Evaluation of implementation of basic RN revised curriculum - Year one final report.</td>
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<td>01-06</td>
<td>The initiation of a comprehensive nursing human resource database within the public health sector in Pakistan: A pilot study - Phase 1 final report.</td>
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<td>Perceptions of Development of Women Health Professionals (DWHP) fellows of factors associated with their academic progress in the Bachelor of Science in Nursing (BScN) programme at the AGA KHAN University School of Nursing (AKUSON) Final report.</td>
<td>Stanley, Cassum, Husain, Khan, Rizvi &amp; Sayani</td>
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<td>98-1</td>
<td>Factors that influence variability in nursing workload and outcomes of care in community nursing.</td>
<td>O’Brien-Pallas, Murray, Irvine, Cockerill, Sidani, Laurie-Shaw &amp; Gerlach</td>
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</table>
### Nurse Run Centres - The Comprehensive Approach to Health Care Delivery: An Annotated Bibliography

**Number**: 95-15

**Title**: Nurse run centres - The comprehensive approach to health care delivery: An annotated bibliography.

**Author(s)**: McGillion, Mallette, Silverman & Goodine

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### Competency Based Performance Management - A Literature Review

**Number**: 95-14

**Title**: Competency based performance management - A literature review.

**Author(s)**: Wilshaw, Brown & Baumann

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### Disciplinary Action and Restructuring of Health Care in Ontario: The Impact on Nurses

**Number**: 95-13

**Title**: Disciplinary action and restructuring of health care in Ontario: The impact on nurses.

**Author(s)**: Beardwood, Eyles, French & Walters

---

### A Systematic Overview of the Effectiveness of Public Health Nursing Interventions. An Overview of Adolescent Suicide Prevention Programs

**Number**: 95-12

**Title**: A systematic overview of the effectiveness of public health nursing interventions. An overview of adolescent suicide prevention programs.

**Author(s)**: Ploeg, Ciliska, Dobbins, Hayward, Thomas & Underwood

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### Worklife Concerns of Ontario Nurses

**Number**: 95-11

**Title**: Worklife concerns of Ontario nurses.

**Author(s)**: Villeneuve, Semogas, Peereboom, Irvine, McGillis Hall, Walsh, O’Brien-Pallas & Baumann

---

### Exploring the Effects of Change on Nursing Practice in Acute Ambulatory Settings: A Qualitative Study

**Number**: 95-10

**Title**: Exploring the effects of change on nursing practice in acute ambulatory settings: A qualitative study.

**Author(s)**: Martinus, Royle, Boblin-Cummings, Baumann, Oolup, Smith & Blythe
<table>
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<td>The effectiveness of home visiting as a delivery strategy for public health nursing interventions - A systematic overview.</td>
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<td>Effects of downsizing on RNs and RNAs in community hospitals.</td>
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<td>Patterson, Silverman, Guyatt, Charles, Molloy &amp; Sanford</td>
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<td>The process of downsizing in selected Ontario acute care hospitals: Budget reduction strategies and planning process.</td>
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<td>Learning needs of registered nurses in Ontario.</td>
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<td>Evaluation research in public health nursing.</td>
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<td>Public health nursing and health promotion. A background paper for the systematic overview of the effectiveness of public health nursing interventions.</td>
<td>Hayward, Ciliska, Mitchell, Thomas, Underwood &amp; Rafael</td>
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<td>93-1</td>
<td>Organizing the nursing workforce: A review of the literature.</td>
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Monograph 1 1992

Job Satisfaction and Turnover Among Nurses: A Review and Meta-Analysis. Irvine & Evans

Monograph 2 1994

Towards an Understanding of Nurses’ Lives: Gender, Power and Control. Donner, Semogas & Blythe
CO-PRINCIPAL AND CO-INVESTIGATORS’ PUBLICATIONS

The following are 1996-2001 publications by NRU Co-Principal and Co-Investigators (highlighted in italics). The numbering system refers to the planning¹, production², and management³ categories of the HHR framework (Hall, 1993).


¹ Planning: The process of estimating the number of health personnel and the kind of knowledge, skills, and attitudes required to achieve predetermined health targets.

² Production: Assessing the quantity and quality of existing educational programs including curricula, physical facilities, faculty, and enrolment.

³ Management: Mobilization, motivation, development, and fulfilment of human beings in and through work. Concerned with working environments, staffing patterns, and incentives.


Beardwood, B. (2001). Participatory research by injured workers: From reflection to action on compensation and return to work issues. Report submitted to the Workplace Safety and Insurance Board.³


Ciliska, D., Hayward, S., Dobbins, M., Brunton, G., & Underwood, J. (1999). Transferring public health nursing research to health system planning: Assessing the relevance and accessibility of systematic reviews. Canadian Journal of Nursing Research, 31(1), 23-36.¹


Ciliska, D., Mastrilli, P., Ploeg, J., Hayward, S., Brunton, G., & Underwood, J. (2001). The effectiveness of home visiting as a delivery strategy for public health nursing interventions to clients in prenatal and postnatal period: A systematic review. Primary Health Care Research and Development, 2(1), 41-54.³


Everett, B. & Gallop, R. (Eds.). The link between childhood trauma and mental illness: Theory and practice for case managers, psychiatric nurses and other direct service practitioners. Sage Publishing - in progress. Primary author for three chapters (working titles): The research story; The controversy surrounding memory; Asking the question. Joint author for six chapters: Systemic and individual barriers to helping survivors; A multidimensional model of understanding; Indicators of child abuse; Creating safety in hospital and community settings; Self care; and Final tips and strategies.


Lenton, R., French, S.E., Walters, V., & Eyles, J. (under review). The impact of work and family variables on job satisfaction and the decision to leave nursing. Work and Occupations.


Appendix C


Williams, S. (1999, February). Collaborative baccalaureate nursing programs in Ontario - A key strategy in achieving entry to practice [Fact Sheet]. Toronto: Nursing Effectiveness, Utilization and Outcomes Research Unit, University of Toronto and McMaster University.  


Williams, S. & O’Brien-Pallas, L. (2000). Background document on university nursing program capacity issues related to the new entry to practice requirement for registered nurses. Toronto: Nursing Effectiveness, Utilization and Outcomes Research Unit, University of Toronto.


