

ANNUAL REPORT
JULY 2001 - JUNE 2002

**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

During the past year we have witnessed substantial changes in world events which highlight the need for continued examination of the fundamental rights and values of all Canadians. Recent commissions and reports such as the Fyke Report (released April 2001), Mazankowski Report (due July 2002), the Kirby Report (due October 2002), and the Romanow Commission (due November 2002) have assessed and made recommendations regarding the current state of healthcare. All espouse the value of accessible and sustainable healthcare. However, the current nursing shortage compromises the ability of the system to fulfill this obligation. The Ontario Minister of Health and Long-Term Care, Tony Clement stated that the government is committed to improving the health care system by “rebuilding it, nurturing it and seeing it grow and expand to ensure accountable, sustainable, accessible quality health care for all”.

The Nursing Effectiveness, Utilization and Outcomes Research Unit (NRU) has assisted the government to achieve these goals through policy recommendations based on sound evidence. Working closely with Ontario’s Chief Nursing Officer and other key stakeholders on the Joint Professional Nursing Council, the NRU has helped to set strategic priorities that embody the Nursing Task Force Recommendations. The issues surrounding the nursing work force and care delivery are extremely complex and over the course of the year, the NRU’s program of research has contributed greatly to the understanding of issues such as the impact of quality practice environments on service delivery; the characteristics of healthy workplaces and changing work arrangements and implications for recruitment and retention; the impact of skill mix on patient outcomes; and the estimation of future health human resource needs in response to demand for service.

NRU research continues to provide the evidence to support decision making by policy makers, managers, and nursing personnel at provincial and national levels. The NRU continues to build capacity with the addition of several new investigators from a variety of disciplines. Ongoing partnerships with the College of Nurses of Ontario, the Registered Nurses Association of Ontario, the Canadian Nurses Association, hospitals and healthcare institutions, and professional organizations throughout Ontario and the country are an essential element in the successful completion of the research projects and to the dissemination of results that are practical and understandable.

Over the next year the NRU will continue to pursue an innovative and proactive program of research to ensure that the Ministry’s goals for quality healthcare are realized.

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

& Andrea Baumann, RN, PhD
McMaster University Site

INTRODUCTION

This Annual Report outlines the research activities in which the NRU has been engaged from July 1, 2001 through June 30, 2002. The report describes the mission and objectives of the NRU, introduces the Co-Principal Investigators and outlines the organizational structure and operations. Research activities by NRU Investigators are highlighted in terms of their policy implications. The appendices provide biographical information regarding the Co-Investigators as well as summaries of their research and publications.

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 from 1996-2001. The overall purpose of the unit is to study the planning¹, production², and management³ (Hall, 1993) of nursing human resources with the goal of developing strategies to meet current and future health needs. Unit researchers:

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.

1. Investigate the appropriate supply, distribution, and deployment of nurses and how to enable nurses to meet their responsibilities following the restructuring of the health care system.
2. Determine methods of maintaining quality while realizing funding efficiencies in the health care system.

Expanded Role

In 1997, the MOHLTC approached the NRU with the suggestion of completing a health human resource (HHR) planning framework and program for Ontario. As a result of the Nursing Task Force (1999) recommendations in “Good Nursing, Good Health: An Investment for the 21st Century”, the MOHLTC awarded the NRU additional funding from 1999-2004 to assist in monitoring the impact of the Nursing Task Force recommendations. This led to an expanded role for the NRU and an additional purpose.

3. Provide the MOHLTC with the basic information needed to make necessary changes to HHR practices in Ontario.

OUR OBJECTIVES

The NRU’s original mandate is broad enough to allow unit researchers to investigate an extensive array of subjects including: nursing human resource planning and modeling, nursing skill requirements, need and preparation required for advanced nursing practice, strategies to reduce systemic barriers to evidence-based practice, the effect of technological advances on delivery of nursing care, access and barriers to nursing services in the community, health outcomes related to alternative providers and multi-disciplinary practice, the effects of nursing numbers and staff mix (RN, RPN) on patient care outcomes, the appropriate use and role of unregulated health care workers, factors which facilitate an efficient and cost-effective nursing service, and the effects of downsizing of medical schools and reduction in residents on nursing.

The original 1996-2001 NRU objectives and 2001-2004 expanded role objectives have been integrated and are categorized below:

1. Monitoring of Nursing Resources and Health Human Resource Modeling

Define the concept of vacancy as a prerequisite of estimating the vacancy rate for nurses in Ontario.

Explore standard and non-standard working arrangements for nurses.

Investigate issues surrounding the mobility of the nursing workforce.

Evaluate and develop HHR databases and nurse-sensitive data elements for use in situational and trend analyses and simulation modeling exercises to determine which factors influence nursing and HHR activities in Ontario.

Test and validate the strengths and limitations of current HHR modeling approaches, using provincial data that meets quality standards, and work to develop an integrated approach for nursing HHR.

Examine the relative effectiveness of supply, utilization, effective demand, and needs based models of nursing HHR and develop methodologies that examine the impact of HHR relative to system, caregiver, and client outcomes, based on a critical appraisal of the previous activities.

Define the current practice demands and resource utilizations of restructured settings in which nurses work.

Develop databases and methodologies that will allow examination of the utilization and outcomes of nursing service.

Continue to monitor the nursing situation in Ontario and the remainder of Canada to determine the factors which influence nursing and HHR activities in Ontario.

Build computer models of HHR, based on a critical appraisal of the previous activities, that examine the impact of HHR relative to system, caregiver, and client outcomes.

Conduct studies which examine production and management of nursing human resources.

Evaluate management interventions directed at improving the health of nurses and the quality of worklife in all settings where nurses are employed.

Support studies that address key issues for nursing personnel in both hospital and community settings.

Assist in monitoring the impact of the Nursing Task Force recommendations.

1. Nursing Education

Assess existing educational data sources and develop a database of Ontario educational nursing human resources to determine the supply of registrants for practice, trend the factors influencing the supply of registrants for practice, and analyze the cost of clinical education.

Examine both nursing skill requirements and the need and preparation required for advanced nursing practice.

2. Care Delivery Models

Develop and validate new approaches and management interventions for structuring nursing roles and work within the immediate work environments of nurses to improve the health of nurses and the quality of worklife across all settings.

Study the impact of evidence-based practice and strategies to reduce systemic barriers to evidence-based practice.

Study the effect of technological advances on delivery of nursing care.

Evaluate care delivery models and study factors which facilitate an efficient and cost-effective nursing service.

Study the effects of downsizing of medical schools and reduction in residents on nursing.

Examine the decision-making process.

Examine access and barriers to nursing services in the community.

1. Impact of Policy on Care

Evaluate the impact of RPN extended practice role policy on care.

Evaluate the impact of privatization policy on care in health care sectors.

Evaluate the impact of BScN entry to practice policy on care.

2. Restructuring and Organizational Design

Assess the impact of restructuring, organizational design, current practice demands, and resource utilization on patient, personnel, and organizational outcomes across sectors. This includes continuing trend analyses to identify key issues for workforce planning and supporting the development of a nursing report card for the province of Ontario.

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). Forty One Co-Investigators are involved in various research projects related to HHR and are contributing members of the NRU. This research team represents a multi-disciplinary group from nursing, business, labour studies, economics, health care policy, engineering, sociology, gerontology and anthropology. Many of the Co-Investigators are affiliated with other Ontario universities - Laval University, University of Ottawa, Ryerson Polytechnic University, University of Western Ontario, University of Windsor, and York University. In addition, the Executive Director of Nursing Policy for Health Canada is a member of the Co-Investigator Team. The NRU has been recognized provincially, nationally, and internationally for its comprehensive team approach to problem identification and resolution.

AREAS OF EXPERTISE

The multidisciplinary team of researchers represent diverse areas of expertise, such as:

- Decision-making and Problem Solving
- Health Care Teams
- Nursing Costing
- Nurse Practitioners
- Public Health, Community-Based Interventions
- Nursing Informatics
- Labour Relations
- Workload Redesign
- HHR Development - planning, production, and management
- Policy Development and Analysis
- Research Methods
- Restructuring
- Redeployment
- Skill Mix
- Evidence-Based Practice
- Outcome Measurement
- Professional Delivery Models
- Women's Studies

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.

***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

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

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

Joanne Young Evans
Executive Director, Registered Practical
Nurses Association of Ontario
February 2001 - present

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

Trish Nesbitt
President, Registered Practical Nurses
Association of Ontario
October 2001 - present

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

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

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

Jennifer Dziuba
Graduate Student, McMaster University
August 2001 - present

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

Andreas Laupacis
President & CEO, Institute for Clinical
Evaluative Sciences
October 2001 - present

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

Chief Nursing Officer, The Hospital for Sick
Children

October 2001 - present

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

UNIT PARTNERSHIPS

Research collaboration exists between the NRU and such well known organizations as 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 (<http://www.hhr.utoronto.ca>). Dr. O'Brien-Pallas sits as a nominated member

on the Canadian Nursing Advisory Committee. She was member of the Board of Directors of the Canadian Nurses Association and past Board of Director member for the Registered Nurses Association of Ontario. She 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.

In 2001-2002, the University of Toronto site included the following personnel:

Chris Alksnis - Senior Research Associate
(2000 - present)

Debra Barrath - Research Officer (2001 - 2002)

Shirliana Bruce - Research Officer (2000 - present)

Deanna Cape -

Research Officer (2001 - 2002)

Irene Cheung - Research Officer (2001 - present)

Trudy Freeman - Doctoral Fellow (2001 - present)

Anne-Marie Greene - Chair Research Practicum (2002)

Jana Lait - Research Officer (2001 - present)

Manon Lemonde - CHSRF Career

Reorientation Award recipient (2001 - 2002)

Marcia Luba - Research Officer (1996 - present)

Raquel Meyer - Research Officer (2000 - present)

Angela Pagniello - Research Officer (2000 - present)

Elisabeth Peereboom - Research Projects Coordinator (1996 - present)

Karen Ray - Chair Research Apprentice
(2002)

Rivie Seaberg - Acting CHSRF Chair
Coordinator (2001 - present)

Brenda Laurie-Shaw - MN Student/Research
Associate (2002)

Anagaile Soriano - Research Apprentice
(2001 - present)

Donna Thomson - Doctoral Fellow (1998 -
present)

Gail Tomblin Murphy - Doctoral Candidate
(1998 - present)

Sping Wang - Research Officer (2001 -
present)

Laura Ward - Business Assistant (2002)

Lenore Wilson - Secretary (2000 - present)

ORGANIZATION AT THE MCMASTER UNIVERSITY SITE

The McMaster University site operates 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 and is the Vice President Research, for the Canadian Association of University Schools of Nursing. Her leadership positions have included the Chair of a hospital Board of Trustees and membership on the Interim Governing Council of Canadian Institutes of Health Research. Dr. Baumann has authored/edited three books and has numerous peer reviewed publications focusing on decision-making and health human resource issues. She has been a grant reviewer on three multi-disciplinary councils and has been a member of journal editorial boards. Currently, she is the Editor for the Journal of Advanced Nursing for the Americas. Dr. Baumann's research interests include HHR planning, production, and management; health care systems and organizational restructuring; migration and mobility; clinical decision-making; and quality practice environments.

In 2001-2002, the McMaster University site included the following personnel:

Mohamed Alam Edine -
Doctoral Candidate (2000 - present)
Jennifer Blythe - Senior Scientist and
Assistant Professor (1999 - present)

Sarah Bonner - Student Intern
(2002 - present)

Andrea Brown - Student
Intern (2001 - 2002)

Jamie Clark - Project
Consultant (2001 - present)

Jennifer Dziuba - Graduate
Student (1999 - present)

Anita Fisher - Doctoral
Candidates (2001 - present)

Jasmine Heighton - Student
Intern (2001 - 2002)

Ann Higgins - Senior Research Associate
(2001 - present)

Kathryn Intven - Student Intern (2002)

Ann Jalandoni - Student
Intern (2002)

Laurie Kennedy - Research Unit
Coordinator (1996 - present)

Camille Kolotylo - Research
Associate (2001 - present)

Mariko Koyama - Doctoral Candidates
(2001 - present)

Joanne Leeming -
Administrative Assistant (2000 - present)

Elena Oreschina - Research Project Co-
ordinator (2001 - present)

Bilal Sabra - Student Intern
(2001- present)

Mike Teng - Student Intern

(2002 - present)

Angela Thomas - Student

Intern (2001 - present)

STRATEGIES TO ENHANCE RESEARCH TRANSFER

Key audiences for the NRU include hospital managers and administrators, front line staff, policy makers from professional associations and government, and other researchers. The diversity of stakeholders warrants a multi-faceted dissemination strategy. The NRU employs a variety of communication strategies to reach a wide range of audiences with differing needs, interests, and communication styles. Research findings are disseminated through peer reviewed journals, working papers published by the NRU, and presentations at scholarly conferences. As well, the NRU works directly with nursing leaders, health care organizations, and policy makers to influence policies that affect nursing and patient care. The NRU's External Advisory Committee includes health policy analysts, a nursing union representative, and members of professional associations who assist the NRU by disseminating information through their respective networks. The NRU communicates to a wider audience through radio, television, and print media. Fact sheets are circulated and summaries of research are published in professional and organizational newsletters. Our website (<http://www.fhs.mcmaster.ca/nru>) features NRU activities and publications by the Co-Principal Investigators and Co-Investigators. Examples of these publications are presented in Appendix C of this report.

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 (1992-2001)

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 by institution, unless specified):

- applicants, applications, and confirmations 1996-2000 (Ontario College Application Services)
- provincial quotas 1989-2001 (Ministry of Training, Colleges Branch)
- new entrants 1990-2000 (Ministry of Training, Colleges Branch)

- enrolments 1990-2001 (Ministry of Training, Colleges Branch)
- graduates 1991-2000 (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 for all program types combined 1975-1995
- diplomas/certificates granted by institution for each program type 1991-1998

University

Ontario Data (1998 data by institution 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

Ontario Data (undergraduate)

- provincial-level applicants and applications 1991-1996 (Ontario University Application Centre)

Ontario Data (BN, Post-RN BN, Master, & Doctoral programs)

- November 1st headcount of first year enrolments by institution (1991-2000) (Ministry of Training, Universities Branch)

- provincial-level degrees granted (1979-1998)
(Ministry of Training, Universities Branch)

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

- Registered Nurses Management Data (1994-1997)/Registered Nurses Database (1998-2001)

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 2001. The RNDB is maintained by the Canadian Institute for Health Information.

Utilization/Demand

- Ontario Home Care (OHCAS) service and registration files (1980/1981 - 1995/1996)

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

- Ontario Discharge Abstract Database (1992/1993 - 1998/1999)

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

- Ontario Management Information System (1995/1996 - 2000/2001)/HS1(1983/1984 - 1993/1994)

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).

- Ontario Case Costing Project (1995/1996)

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.

- Ontario 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.

RESEARCH ACTIVITIES AND POLICY IMPLICATIONS

1. THE NEW HEALTH CARE WORKER: THE IMPLICATIONS OF CHANGING EMPLOYMENT PATTERNS

Hospital restructuring accelerated an existing trend to fewer full-time positions and a greater reliance on non-standard work arrangements, including part-time and casual work. Initially, hospital managers considered non-standard work arrangements an effective response to a volatile economy. Some now suspect that an over-emphasis on non-standard work arrangements has negative implications in terms of the efficiency of health care teams, standards of nursing care, and the commitment of nurses. Research indicates that nurses job satisfaction has declined. Today, recruitment into the profession is falling, the nursing workforce is aging, and a nursing shortage looms. Managers are becoming increasingly concerned with recruitment and retention.

This project, led by Dr. Andrea Baumann, explores 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.

A sequential mixed methodology design with quantitative and qualitative components was adopted. Policy documents relevant to standard and non-standard work as well as data on turnover

and absenteeism was obtained from the three hospitals. Focus groups were held with nurses to explore their preferences for specific employment arrangements and their perceptions of the impact of current employment arrangements on nurses, the nursing team, and the organization. A sample of human resource decision-makers and managers were interviewed about the effects of human resource policies on the worklife of nurses. A random sample of 2700 nurses was selected from the three hospitals and surveyed by questionnaire. The questionnaire was based on valid and reliable instruments and additional questions developed by the research team. It explores four aspects of quality of worklife associated with retention: job satisfaction, commitment, stress and intention to quit. The focus groups and interviews were thematically analyzed and entered into NUD*IST. SPSS is being used to generate descriptive statistics and bivariate and multivariate analyses of the questionnaire.

This exploratory study will lead to an increased understanding of the consequences of contemporary work arrangements. The findings will assist decision-makers in creating human resources policies that will benefit managers, nurses, and ultimately patients.

2. EFFECTS OF JOB STRAIN, HOSPITAL ORGANIZATIONAL FACTORS AND INDIVIDUAL CHARACTERISTICS ON WORK- RELATED DISABILITY AMONG NURSES

There is strong evidence to suggest that nurses' injuries contribute significantly to workplace absenteeism and compensation

costs. Nurses are at risk of injury and illness due to a number of factors, some of which are unique to the current time period. Massive restructuring and downsizing has changed both the nature of work and the characteristics of the workforce. Due to reduced staffing levels, nurses are expected to perform more physical activities within a given shift. As well, the intensity of work has increased and there are fewer personnel to support the activities of nurses. Furthermore, the work environment is in a state of constant change. In addition, the workforce itself is experiencing a major shift. The average age of the workforce is increasing, the skill level is being polarized, and the percentage of full-time workers has decreased. All of these circumstances may increase musculoskeletal injury rates either directly through overexertion or indirectly through job strain.

This study, led by Drs. Judith Shamian and Linda O'Brien-Pallas, was funded by the Ontario Workplace Safety and Insurance Board (WSIB) from 1999 to 2001 to examine how job strain affects the health of nurses by describing nurses' health status, examining trends in injury compensation claims, and determining factors contributing to claims. Nurses were also asked to rank interventions aimed at improving their workplace health and safety and input was gathered from nurses and hospital stakeholders on factors related to nurse injuries, stress, and absenteeism.

This study included both quantitative and qualitative components. Data from three 1998/99 Ontario data sources were linked together at the hospital-level into one database: a survey completed by acute care nurses about their work life, the Ministry of

Health hospital submissions, and WSIB lost-time claim rates. WSIB claim rates were examined for a nine-year period, from 1990/91 to 1998/99. The qualitative component involved analyses of data obtained from focus groups with nurses and interviews with hospital stakeholders at 10 Ontario hospitals. The study focused exclusively on acute care hospitals due to the availability of existing nurse survey and Ministry of Health data.

The study found that almost half of nurses (44%) reported missing work due to illness at least once in the past three months. High emotional exhaustion was experienced by more than 36% of nurses. A substantial number of nurses reported experiencing musculoskeletal pain most or all of the time (16% for back pain and 17% for neck pain). Over the nine years examined, nurses had consistently higher injury claim rates compared to non-nurses. Musculoskeletal claims comprised the majority of hospital claims. While there was a 61% decrease in the musculoskeletal claim rate for non-nurses between 1990 and 1998, musculoskeletal injury rates dropped by only 39% for nurses. The probability of a hospital having a high RN lost-time claim rate increased with RNs working more than one hour of overtime per week and RNs reporting more occasions of sick time than average. The probability of a hospital having a high RN musculoskeletal lost-time claim rate decreased with improvements in nurses' relations with physicians, while the probability of a hospital having a high RN musculoskeletal lost-time claim rate increased with RNs reporting more occasions of sick time than average.

While the majority of nurses ranked adequate staffing levels and reasonable workload as interventions that would improve their workplace health and safety, most did not believe that these variables were currently present or likely to happen in their hospital. To reduce injuries, nurses suggested improving the physical environment, while stakeholders also suggested improving the physical work environment as well as offering education to nurses. To decrease stress levels, nurses most frequently suggested improving benefits, staffing levels, and respect for nurses, while stakeholders also suggested increasing respect and improving benefits. Finally, to reduce absenteeism, nurses most often suggested improving benefits, while stakeholders offered improved benefits, changes in policy, and reduced workload as potential solutions.

Recommendations to reduce injury claims and improve nurses health were made for hospitals, WSIB, government, and future research. It was recommended that nurse illness needs to be reduced through workplace improvements that focus on creating more manageable and sustainable workloads as well as improving the workplace environment. Team building among nurses and other groups need to be promoted to create supportive environments. Stress reduction programs and conflict management strategies should be offered to support nurses in these work environments.

More studies need to be conducted to understand how to reduce the emotional exhaustion among nurses and to further explore the relationship among

organizational/management behaviors and job strain in nursing and other allied health professions. Intervention studies to evaluate stress reduction programs, injury reduction, and other approaches to manage high absenteeism and claim rates are also recommended.

Several publications are in progress. The team has worked with the WSIB to develop a “people friendly report” that has been disseminated widely.

This project was released in October 2001 and is available on the HHR Network website (http://www.hhr.utoronto.ca/research_projects/disability.asp).

3. AN EXPLORATION OF THE IMPACT OF RESOURCE TEAM EMPLOYMENT ON NURSES PERCEPTION OF THEIR WORK

The use of resource teams and float pools is prevalent in Ontario. In 2002, the Ontario Hospital Association (OHA) reported that 65% of respondents are applying innovative and creative scheduling practices in a particular nursing unit or across the whole organization and identified the use of float pools and resource teams, among other innovative practices (OHA, 2002). The Canadian Nursing Advisory Committee also recommends the use of innovative, responsive scheduling practices (ACHHR, 2002) and offers the use of float pools as a solution to staff shortages.

The use and effectiveness of resource teams and float pools has not been evaluated. There is limited research on float pools or related employment designs. This

study, conducted by Dr. Andrea Baumann and Jennifer Dziuba, will examine 1) the kinds of flexible nurse staffing arrangements that exist in Ontario teaching hospitals and how they are they operationalized, and 2) how participation in work arrangements designed to promote staffing flexibility, influences nurses' perceptions of their work.

The objectives of the study are to:

- explore the design and operational structure of resource teams, float pools and casual pools and related employment arrangements;
- explore employment practices related to resource teams, float pools and casual pools in terms of employment status (i.e., full-time, part-time), scheduling and shift work;
- explore the impact of resource team employment on the nurses' perception of their work; and,
- compare the impact of resource team employment on nurses' work in two resource teams differing in operational design and utilizing different employment practices.

4. NURSING REPORT 2001

The Nursing Report 2001 (a component of the Hospital Report 2001) was led by Dr. McGillis Hall and funded by the Ontario Ministry of Health and Long_Term Care (MOHLTC) and Ontario Hospital Association (OHA). The Hospital Report provides information on the performance of hospitals but does not focus on specific providers. The Nursing Report provides the opportunity to build on work completed in the broader healthcare sector, and specifically in the field of nursing, and identifies nursing indicators considered feasible for inclusion in the next iteration of the *Hospital Report Series*.

The overall purpose of the Nursing Report was to introduce and structure a nursing perspective within the *Hospital Report Series*. The objectives were to:

- identify evidence_based indicators representative of nursing care;
- gain consensus from key stakeholders and leaders in nursing in Ontario regarding the relevance of the proposed indicators for nursing;
- determine the availability of data related to nursing indicators deemed important to measure in order to assess feasibility; and,
- identify whether the balanced scorecard approach is congruent with the indicators identified as essential

for capturing a nursing perspective in the *Hospital Report Series*.

A literature review examining the theoretical and empirical work relevant to report cards, balanced scorecards, and specifically, nursing report cards was conducted. Literature examining system integration and change, clinical utilization and outcomes, patient satisfaction, and financial performance and condition was also undertaken. The literature suggests that the use of a balanced scorecard framework to incorporate a nursing perspective into the *Hospital Report Series* is a feasible approach to pursue.

Consultations designed to enable the research team to obtain input on the proposed indicators that emerged from the literature review were conducted with 139 stakeholders in the nursing field in Ontario.

System Integration and Change

Based on the literature review, stakeholder consultations, and previous work in this area, it is recommended that organizations be surveyed to collect information about system integration and change indicators for nursing care. Also recommended is the inclusion of nurse integration and management as a new indicator in order to capture the nursing human resource challenges that exist within organizations. In the future, when nursing data are routinely collected and examined, it is recommended that items be developed to assess internal and external benchmarking of nursing practices. To augment the patient's assessment of these indicators, continuity and coordination of care items should be developed and included in the Hospital Report.

Clinical Utilization and Outcomes

A review and analysis of the literature on clinical indicators of nursing care effectiveness entitled, *An analysis of the literature on nurse_sensitive patient outcomes: Functional status, self_care, symptom management, patient satisfaction, and nurse satisfaction*, was led by Dr. Doran under contract for the Expert Panel on Nursing and Health Outcomes, MOHLTC. The analysis of the literature and feedback from the stakeholder consultations formed the basis for the identification of nursing_sensitive clinical indicators. The literature review provided evidence of a relationship between a number of patient outcomes and nurse staffing in acute care inpatient units. The final report for the analysis of the literature on nurse_sensitive

patient outcomes was submitted to the MOHLTC. Since the completion of this work, the authors have updated the literature review and expanded it to include patient safety outcomes. It will be published as a book by Jones and Bartlett Publications.

A three_stage approach is recommended in the Nursing Report for the development of the clinical utilization and outcomes literature. Several of these indicators will be explored in the Nursing Report, while the others will be examined in another study funded by the MOHLTC and led by Dr. Doran, which is determining the feasibility of collecting data on nurse_sensitive outcomes. Highlights of this study, and the literature review on nurse_sensitive outcomes are presented in Appendix B.

Patient Satisfaction

The literature and feedback from nursing stakeholders across the province suggests that the current measure of patient satisfaction with nursing care fails to capture many of the factors identified by nurses and patients in research on determinants of satisfaction with care. Based on a review, the nursing team investigators recommended using the modified version of the Patient Judgments of Hospital Quality (PJHQ) as a measure of satisfaction with nursing care for the *Hospital Report Series*. A reliable and valid measure of patient satisfaction with nursing care is fundamental to obtaining data to continuously improve patient care quality in today's highly charged healthcare settings.

Financial Performance and Condition

Nursing_sensitive financial indicators were identified in the literature on financial indicators by financial data sources such as the Ontario Hospital Reporting System (OHRS) and the Ontario Case Costing Project (OCCP) database, and consultations with key stakeholders. The literature review provides evidence that supports a relationship between financial nurse staffing indicators and patient outcomes in acute inpatient care. A two_staged approach is recommended for the development of financial performance and condition indicators. This includes: (1) for data currently available from the OHRS, collecting data and analyzing it for inclusion within the next series of Hospital Reports, and (2) for data that are not currently available from the OHRS, that the OHRS Management Information System (MIS) database be enhanced in the future to include relevant variables.

The generated list of indicators are supported by evidence in the literature and by nurse stakeholders from across the Province. The researchers recommend that these nursing indicators be incorporated into the *Hospital Report Series* for validation and testing, and analysis.

The Nursing Report 2001 was published in February, 2002 and is available at http://www.nursing.utoronto.ca/lmcgillishall/research/completed_lead.html. A brief report of progress towards integration of the nursing indicators into the Hospital Report _ Acute Care is forthcoming in December, 2002.

CONCLUSION

As evidenced in this report, the NRU is addressing the complex HHR, policy, and practice issues relevant to nurses and Ontarians. These issues extend beyond our provincial borders, and our national and international partnerships have enabled us to learn and share our expertise. In the appendices that follow, we invite you to meet our Co-Investigators and to examine our research activities and publications in further detail.

Appendix A

NRU CO-INVESTIGATORS

The NRU's 41 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 was winner of 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.

Dr. Carter's research interests include scheduling and information systems application in health care, course and examination time tabling, and production scheduling and sequencing. Dr. Carter has published widely and presented papers both

nationally and internationally on his areas of research.

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 taught 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 Health Administration, Faculty of Medicine, University of 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. She is past president of the Canadian Health Economics Research Association.

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 Polytechnic 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 2002, she will retire from her roles as Professor and Dean in the Faculty of Nursing, University of Toronto. Dr. Donner is a member of the Joint Centre for Bioethics at the University of Toronto.

Dr. Donner has held a number of government and community appointments and is a frequently sought after speaker on professional and health care issues. She is active on a number of boards and committees including the Board of ICES, Board of the University Health Network, Committee on Hospitals of the Ontario Medical Association, Quality of Care Committee of the Baycrest Centre for Geriatric Care, and Women's Heart Health

initiative at the Heart and Stroke Foundation of Ontario.

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. With Mary Wheeler, Gail provides career planning and development workshops and consulting services to individuals and organizations.

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*.

DIANE 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. 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. 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. 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.

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 Montford 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.

MICKEY KERR, PhD received his Master's and Doctorate degrees in Epidemiology from the University of Toronto. His thesis involved the design and analysis of a case control study of risk factors for low-back pain in workers at a large automobile assembly complex. He is currently a Scientist and Manager of Workplace Studies at the Institute for Work and Health. He also has an appointment in the Department of Public Health Sciences, Faculty of Medicine, and School of Graduate Studies, University of Toronto. His research interests include risk factors for musculoskeletal disorders, the workplace psychosocial environment, stress research, and biological mechanisms for injury.

HEATHER K. SPENCE LASCHINGER, RN, PhD is a Professor and 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. 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 both nursing and other disciplines around the world. In August 2000, Dr. Laschinger was awarded the *Best Theory to Practice Paper* by the Academy of Management, and, in August 2002, will be honored again by the Academy of Management with the *Best Paper in the Health Care Management Division*.

Dr. Laschinger has been involved in the *International Study of Hospital Outcomes* led by Drs. Judith Shamian and Linda 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 and the University of Western Ontario, 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. She is also a member of the Advisory Group for the OHA Nursing Strategy Project. Currently, Dr. Laschinger is part of an investigative team led by Dr. Diane Doran 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 Co-Investigator on an international study led by Dr. Judith Shamian to compare the costs of nursing turnover in five countries.

LINDA MCGILLIS HALL, RN, PhD earned her Master's and Doctorate degrees in Nursing Administrative Science from the University of Toronto. She is an Assistant Professor in the Faculty of Nursing, University of Toronto. Dr. McGillis Hall's research interests relate to determining nursing's effectiveness in the health care system, examining methods for costing nursing services, and the impact of differing staff mixes on outcomes. She has presented numerous papers on topics related to staff mix in nursing and nursing work design initiatives. She has several publications to her credit in peer-reviewed journals.

KATHERINE SIMONE MCGILTON, RN, PhD is currently a Postdoctoral Fellow at Kunin Lunenfeld Applied Research Unit, Baycrest Centre for Geriatric Care, funded federally through the Alzheimer Society of Canada. She is also a scientist at Toronto Rehabilitation Institute, and a Lecturer at the Faculty of Nursing, University of Toronto. Dr. McGilton's research interests relate to understanding, measuring and enhancing

relationships between care providers (health care aides and registered practical nurses) and residents, and between care providers and their supervisors (registered nurses and unit managers) in long-term care environments. She is also interested in the measurement and implementation of best information and research with practice. She has presented numerous papers on topics related to quality long-term care environments and has a few publications in peer-reviewed journals.

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's of Science in Medical-Surgical Nursing at the University of Toronto, and PhD in Nursing at the University of Rochester. 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. She is also an Assistant Professor at the Faculty of Nursing, University of Toronto and teaches a graduate course in Nursing Informatics.

Dr. Nagle's research has been directed toward evaluating the impact of technologies, particularly information technology solutions in clinical practice settings. 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.

Dr. Nagle has recently served on the Expert Panel on Nursing Sensitive Outcomes at the MOHLTC and chaired an Informatics Curriculum Task Force for RNAO. She is the Canadian nursing representative to the International Medical Informatics Association Nursing Work Group and the current and founding President of the Canadian Nursing Informatics Association.

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 and 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. She is principal investigator on a SSHRC funded study entitled: "Home Care Ethics: Identification & Analysis of Issues".

PATRICIA PETRYSHEN, RN, PhD completed a Masters 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 Masters 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. Dr. Pink 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 which 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, Associate 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 interests 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.

JOAN TRANMER, RN, PhD is Director of the Nursing Research Unit, Kingston General Hospital and holds joint appointments as Assistant Professor, School of Nursing and the Department of Community Health and Epidemiology, Faculty of Health Science, Queen's University.

Joan received her PhD from the Faculty of Nursing Science, University of Toronto in 1999. Her research focuses on the measurement and evaluation of patient and system outcomes and the improvement of patient care for complex, seriously ill hospitalized patients or patients with complex, multifactorial clinical concerns. One group of studies explores the factors that contribute to patient and caregiver quality of care outcomes in (a) elderly patients treated for symptomatic coronary artery disease, (b) elderly patients with congestive heart failure, (c) patients prognostically near the end of life, and (d) labouring women with prolonged labour. A second group of studies focuses on the development and evaluation of interventional strategies, of relevance to the practice of nursing, to enhance the effectiveness of patient care in these patient populations.

As a member of the senior nursing leadership team at the Southeastern Ontario

Health Science Centre, Dr. Tranmer provides direction for the development of structures and processes that facilitate the incorporation of the best available evidence into practice and policy decisions, and promotion of research and scholarship within the clinical setting.

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 challenges of supply side database development.

SUSANNE WILLIAMS, RN, MEd is a 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's 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).

AT MCMASTER UNIVERSITY:

MARJORIE ARMSTRONG-STASSEN, MLHR, PhD is a Professor in Management and Labour Studies, at the Odette School of Business, University of Windsor. Dr. Armstrong-Stassen's research interests are in the areas of organizational downsizing, layoff survivors, the aging workforce, work stress and coping, and human resource management. She has implemented numerous research studies in this area. Her present research funded by the Social Sciences and Humanities Research Council (SSHRC) examines the long-term impact of downsizing on individuals, work groups, and organizations. Dr. Armstrong-Stassen has published and presented nationally and internationally.

VISHWANATH BABA, MBA, PhD is presently Dean of the Michael G. DeGroot 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

Supérieure des Sciences Économiques 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 at numerous national and international conferences.

JENNIFER BLYTHE, MLS, PhD is an Associate Professor at the School of Nursing, McMaster University. Born in England, 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 employed in contractually limited positions in a number of Canadian universities. Later, she received a Master's of Library Science degree from the University of Toronto. Her current research interests include nursing HHR, restructuring, and quality of nursing worklife.

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.

SHERYL BOBLIN, RN, PhD is an Assistant Professor, School of Nursing, McMaster University. Her research foci include nursing competency, decision-making of patients and health care providers, and learning needs of patients and nurses.

Dr. Boblin is involved in the graduate and undergraduate nursing programs at McMaster University. She takes an active role in the administration and implementation of the fourth year of the undergraduate program. She is the Level 4 Coordinator, and 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 is a member of the Review Panels for the Development of Women Health Professionals Program and for the *Journal of Nursing Education*. She is a member of the Editorial Board, 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 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, and conference leadership. Dr. Burke has been a consultant for a number of clients on specific organizational projects in both private and public sectors.

SHEILA CAMERON, RN, EdD is a Professor and Executive Dean of the Faculty of Graduate Studies and Research at the

University of Windsor and also a Professor, at the School of Nursing. She has conducted a number of studies examining the impact of downsizing and mergers on hospital nursing staff since 1991. This work has been 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-Wentworth Regional Department of Public Health Services. Dr. Ciliska is a Career Scientist, MOHLTC, Ontario. She is the Co-Editor of *Evidence-Based Nursing*, and is the Co-Director of the Canadian Centre for 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 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 has been 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/MOHLTC Nursing Chair and a Professor at the School of Nursing and in the Department of Clinical Epidemiology and Biostatistics, McMaster University. The theme of her 10-year Nursing Chair is the Evaluation of Advanced Practice Nursing Roles and Interventions. She is lead editor of *Evidence-Based Nursing*, an international journal that summarizes methodologically sound published research of relevance to nurses. She co-directs the Canadian Centre for Evidence-Based Nursing. Her primary research area is the introduction and evaluation of nurse practitioners in primary and tertiary care settings.

She was the lead researcher for a multi-phase project that introduced and evaluated neonatal nurse practitioners in tertiary level neonatal intensive care units in Ontario. With respect to primary care nurse practitioners, she co-authored the Discussion Paper that preceded the provincial government’s announcement to introduce nurse practitioners in Ontario, conducted a needs assessment to determine the numbers needed and specific role required in each type of primary care setting, evaluated the university-based consortium approach to educating primary care NPs and examined their practice patterns.

MAUREEN DOBBINS, RN, PhD is an Assistant Professor, School of Nursing, McMaster University and has an appointment as a Public Health Associate with the City of Hamilton, Social and Public Health Services. Dr. Dobbins is a post-doctoral fellow sponsored by the Canadian

Institute for Health Research (CIHR) 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, and health services delivery.

Her research in NHRDP included 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, University of Montreal and Laval University.

SUSAN FRENCH, RN, PhD is currently Director 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.

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's 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 practiced 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, the emergency room, and neonatal intensive care. She was also a practitioner in a pediatrician's office. In the early 1970's, Dr. Hunsberger worked for 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 on the Steering Committee and Curriculum Group involved in the McMaster-Mohawk-Conestoga collaborative initiative. Dr. Hunsberger is currently Chair of the Nursing Educational Research Unit in the School of Nursing. 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 students in Level III and Level IV Pediatrics and is on numerous thesis committees for graduate students studying pediatric issues.

JANET LANDEEN, RN, PHD, is an Assistant Professor in the School of Nursing, McMaster University. She earned her Master's degree in Education from the University of Victoria and her PhD in Health Sciences from the University of Toronto. She currently holds a five-year CIHR Investigator's Award. Her research interests have concentrated on psychosocial aspects of schizophrenia, with a primary focus on the role of hope in coping with illness. She is interested in the role of nursing in promoting the quality of life of individuals with severe mental illnesses, particularly schizophrenia.

COLLEEN McKEY, RN, MScHSA, PhD, 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 McMaster University, Faculty of Health Sciences, School of Nursing. She has extensive expertise in the utilization of knowledge management in clinical practice. She was 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. She 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 has an appointment as 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.

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 in the areas of quality of nurses' worklife and psychosocial and behavioural research related to health. She has 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 has consulted with various community agencies on nursing issues such as quality assurance standards for practice.

ISIK ZEYTINO- LU, PhD is a Professor in Human Resources and Management, School of Business, McMaster University. Dr. Zeytino- lu 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. Zeytino- lu is Chair of an international network of researchers sponsored by the International Labour Organization. She is also the editor of a forthcoming (2003) research volume: Flexible work arrangements: Conceptualizations and international experiences.

APPENDIX B

ONGOING AND RECENTLY COMPLETED RESEARCH

The following research projects are a reflection of the activities from July 2001 to June 30, 2002 and are listed in alphabetical order by first investigator. The projects have been categorized under the set of NRU objectives (see page 3).

AIKEN, SOCHALSKI, SILBER (CO-PIs),
SHAMIAN, ANDERSON, TU, GIOVANNETTI,
CLARKE, RAFFERTY, HUNT, & BUSSE

OUTCOMES OF HOSPITAL STAFFING.^{1,5}

Funded by: National Institute for
Nursing Research & National
Institutes for Health (1998 - 2001)

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.
- Initial findings presented at the International Society for Quality

in Health Care, Ireland and at ICN,
London, England.

ARMSTRONG_STASSEN (PI) & TEMPLER

**THE MANAGEMENT OF AN AGING WORKFORCE:
AN ASSESSMENT OF HOW WELL EMPLOYERS ARE
MEETING THE CHALLENGE.¹**

Funded by: University of Windsor Seed Grant
(2000) & SSHRC (2001 - 2004)

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 were 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.⁵**

Funded by: SSHRC (1998 _ 2001)

Stage: Writing and submitting manuscripts for publication.

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 took 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, & JOHNS
WORK AND MENTAL HEALTH ACROSS
CULTURES: PROJECT - A STUDY OF NURSES
IN CHINA.^{1, 3, 5}

Funded by: SSHRC & FCAR (1999 - 2002)

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.

**BAUMANN (PI), CRAWFORD, LIODIKAS,
UNDERWOOD**

**RESPONSES TO QPASS™ (QUALITY PRACTICE
SETTING SURVEY).^{1,5}**

Funded by: NRU (2002 - 2004)
Stage: Design

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

- To quantitatively and qualitatively analyze the data from the QPaSS™ survey responses to provide information for creation of public policy for nurses.

**BAUMANN (PI), MACKAY, UNDERWOOD, &
RISK**

**QUALITY PRACTICE SETTING SURVEY (QPASS™)
TOOL DEVELOPMENT.^{1,5}**

Funded by: NRU (2000 - 2002)
Stage: Preparing manuscript for
publication

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

- To develop and test the Quality Practice Setting Survey tool.
- The purpose of the tool is:
 - To assess workplace attributes that support professional quality practice and provide the foundation for a report that is presented to the participants who filled out the survey.
- To provide information for public policy.

**BAUMANN, ZEYTINO-LU, BLYTHE,
DENTON, & O'BRIEN_PALLAS (CO-PIs)**

**THE NEW HEALTH_CARE WORKER: THE
IMPLICATIONS OF CHANGING EMPLOYMENT
PATTERNS.^{1, 2, 3, 5}**

Funded by: CIHR (2001 - 2003)

Stage: Data collection

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

- 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.

BROWNE (PI), ROBINSON, ROBERTS, GAFNI,
BYRNE, WEIR, CROOK, MAJUMDAR,
WILLMS, & GUENTER

**COMMUNITY_BASED HIV/AIDS
SERVICES EVALUATION UNIT: THE
EFFECTS AND EXPENSE OF
INTERSECTORAL MODELS OF
COMMUNITY-BASED CARE FOR
PEOPLE INFECTED AND AFFECTED
WITH HIV/AIDS.³**

Funded by: AIDS Bureau Ontario MOHLTC (1999
_ 2004)

Stage: Ongoing

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

- The evaluation program will focus on the impact of programs and services on those infected by, affected by, and at risk of acquiring HIV.
- A steering committee composed of stakeholders, providers, policy makers, and investigators will provide direction to the process of evaluation through the research process.
- Through this process, collaborative community services can be systematically developed and rigorously evaluated using comparative research designs.
- Results will have an impact on the ongoing development of services, and the application of new knowledge to practice and policy development.

**BURKE & GREENGLASS (CO-PIs)
HOSPITAL RESTRUCTURING AND
NURSING STAFF WELL-BEING.⁵**

Funded by: SSHRC (1999 - 2002)

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.** ^{1, 3, 5}

Funded by: MOHLTC (2000 - 2001)

Stage: Preparing manuscripts for publication

*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.

**CARTER (PI)
FORECASTING SHORT TERM BED
AVAILABILITY IN AN ACUTE CARE
HOSPITAL.**⁵

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.

**CARTER (PI), BUSBY, GENDREAU, LAKATS,
& SORIANO**

**HOME CARE STRATEGIC PLANNING
MODEL.^{1,3}**

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, and,
- provide decision-makers with the quantitative analysis they require to make rational and equitable decisions concerning the allocation of home care resources.

- Paper presented in Seattle, Washington; Halifax, Nova Scotia; and Windsor, Ontario.

**CHOCHINOV (PI), STERN, & WEIR
CANADIAN VIRTUAL HOSPICE
BUSINESS PLAN.³**

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.**³

Funded by: Alzheimer Society of
Canada (2000 - 2001)

Stage: Completed

*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.
- Findings from a study of providers, patients and their family caregivers indicated that professionals value disclosure both to colleagues and to family members because they believe it is in the patients' best interests.
- Patients supported inter_professional disclosure but sought strong control over disclosure to family members. On the other hand, family members wished to be kept informed of the patient's situation regardless of the patient's consent.
- This study will improve understanding of how to exchange information in light of the new Privacy Act.

**DEBER (PI), BAUMANN, BOBLIN, STEWART,
MYERS, MILLSON, ROBINSON, & HALMAN**

**PREFERRED ROLES OF PEOPLE WITH HIV/AIDS
IN TREATMENT DECISION-MAKING: CAUSES AND
CONSEQUENCES.**³

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.
 - Results suggest that patients reject a fully autonomous role, with a majority of participants preferring to share decision-making responsibilities with their providers.
-

**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.^{3, 4, 5}**

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.^{1,3}**

Funded by: NHRDP & CIHR (2001
- 2003)

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), ZEYTINO-LU, & WEBB
ORGANIZATIONAL CHANGE AND THE HEALTH AND
WELL-BEING OF HOME CARE WORKERS.^{1, 5}**

Funded by: Research Advisory Council, Ontario
WSIB (2000 _ 2002)

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 questionnaire to all home care employees in Hamilton-Wentworth.
- Previous research has shown that home care workers are at risk for chronic stress problems, exhaustion, musculoskeletal disorders, workplace injuries, and accidents; further, these health care problems have been linked to social organization of 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.¹

Funded by: Sunnybrook & Women's College Health Science Centre (2000 - 2002)

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.
- This model will allow the hospital to make better decisions regarding the cancellation of elective surgeries in advance rather than at "the last minute".
- 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

NATIONAL CHAIR FOR MANAGEMENT OF NURSING SERVICES.²

Funded by: CHSRF, The University Health Network, & Ontario MOHLTC (2000 - 2010)

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.^{1, 2, 3}

Funded by: MOHLTC (1997 _ 2001)

Stage: Completed

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), WOODWARD, HUTCHISON, ET AL.

DEVELOPMENT AND EVALUATION OF AN ONTARIO TRAINING CENTRE IN HEALTH SERVICES AND POLICY RESEARCH.²

Funded by: CIHR (2002 - 2008)

Stage: Ongoing

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

- Using a consortium model which allows each university to share its strengths, a research training center will be developed and evaluated.
 - The purpose is to:
 - Build a critical mass of skilled, independent health service researchers, in Ontario and especially Northern Ontario.
 - Ensure that the health services research conducted by these individuals meets the needs of health services policy makers, planners, and managers.
-

DOBBINS (PI), BRUNTON, KOTHARI, & JACK EXPLORING THE PROCESS OF EVIDENCE_BASSED DECISION_MAKING AMONG DECISION_MAKERS IN PUBLIC HEALTH AND LOCAL BOARDS OF HEALTH IN ONTARIO.³

Funded by: Niemeier Award (2000 - 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.
- Summary and report was disseminated to funding agency and 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.^{1,3}**

Funded by: CIHR (2000 - 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.
-

Doran (PI), Harrison, Laschinger, Hirdes, Rukholm, Sidani, McGillis Hall, & Tourangeau

An Evaluation of the Feasibility of Instituting Data Collection of Nursing Sensitive Outcomes in Acute Care, Long-Term Care, Complex Continuing Care and Home Care.^{1,3}

Funded by: Ontario MOHLTC (2002 -

2004)

Stage: Implementation

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

- To evaluate the feasibility, quality, and utility of instituting outcomes data collection for nursing-sensitive outcomes in acute care, long-term care, complex continuing care, and home care.
 - To determine the frequency and timing with which it is necessary to collect data on symptoms over the patient's health care stay for the purpose of outcomes assessment.
 - To conduct pilot testing of the reliability and validity of a therapeutic self-care scale for acute care and home care, and the MDS functional status scale for acute care.
 - To assess the training requirements and resources required to institute nursing-sensitive outcomes assessment within the province of Ontario.
-

EDWARDS (PI), DAVIES, SKELLY, PLOEG, &
DOBBINS

**RNAO BEST PRACTICE
GUIDELINES PROJECT.³**

Funded by: Ontario MOHLTC (2000 - 2003)

Stage: Data collection, data analysis,
and report writing

*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 the MOHLTC and to the individual health care settings who participated 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), BROWMAN,
BROUWERS, CHAMBERS, CILISKA, HAYNES,
LAVIS, O'BRIAN, RAND, SUSSMAN, &
WHELAN

**DIFFUSION AND DISSEMINATION OF EVIDENCE-
BASED CANCER CONTROL INTERVENTIONS.³**

Funded by: Agency for Healthcare Research and
Quality (2001 - 2002).

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 recommendation 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.**³

Funded by: Alberta Heritage Foundation for
Medical Research (1999 - 2001) & CIHR (formerly
NHRDP) (1999 - 2004)

Stage: Data analysis and manuscript
writing

*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.

ESTABROOKS (PI), STEVENS, LANDER,
WATT_WATSON, O'BRIEN_PALLAS,
DONNER, WILLIAMS, BOSCHMA, HUMPHREY,
& GOLDEN_BIDDLE

**THE DETERMINANTS OF RESEARCH UTILIZATION
IN A PEDIATRIC ACUTE CLINICAL SETTING.³**

Funded by: CIHR (formerly
NHRDP) (1999 _ 2002)

Stage: Data analysis and manuscript
writing

*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.

FISHER (PI), BAUMANN, & BLYTHE
NURSING VACANCY RATES IN
ONTARIO.¹

Funded by: MOHLTC (2001 _ 2003)

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.

HEYLAND (PI), TRANMER, FRANK,
GROLL, PICCHORA, & PARENT

**IMPROVING THE QUALITY OF END OF LIFE CARE:
UNDERSTANDING THE PERSPECTIVES OF
SERIOUSLY ILL HOSPITALIZED PATIENTS AND
THEIR FAMILIES.**^{1,3}

Funded by: Physician Services
Incorporated (2002 _ 2003)

Stage: Data collection

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

- Will result in important new knowledge regarding what impacts quality of life at the end of life and what can be done to improve both the patient and their caregivers' experience of end_of_life care in Canada.
- Longitudinal approach will provide a unique assessment of what defines "good quality" end of life care, and the factors that contribute to this care.
- In this longitudinal study we will address the following research questions:
 - Quality of Life (QOL) of Patients and Caregivers: What are the factors associated with a decrease in QOL in patients and caregivers?
 - Factors Important to Good Quality End of Life (EOL) Care: Do patients and caregivers differ in terms of the level of importance assigned to, and their satisfaction with, factors considered important to good end of life care, and do these factors change over time?
 - Preference Regarding Location of Death: Does patient preference for location of death change over time from preferred death at home to preferred death in

hospital? Does caregiver preference for location of patient death change over time?

- Caregiver Burden: What are the factors associated with increased caregiver burden?
- Resource Utilization: Is there a difference in the pattern of resource utilization between patients? What are the factors associated with increased resource utilization?

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

COMMUNITY CARE RESEARCH
CENTRE.^{3,5}

Funded by: Canadian Institutes of
Health Research (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.
- Five research projects have been identified as priorities for the first year, including:
 - integration, coordination and continuity of care for socially disadvantaged seniors,
 - health promotion with immigrant and refugee clients,
 - telephone support services for family caregivers,
 - organizational and community values about community care, and
 - guidelines for the identification and management of elder abuse by staff and volunteers of community care agencies.

**IRVINE (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.^{1, 3, 5}**

Funded by: CHSRF (2000 - 2004)

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.

**IRVINE (PI), SIDANI, MCGILLIS HALL,
WATT-WATSON, MALLETTE, & LASCHINGER
NURSING SENSITIVE OUTCOMES: A
LITERATURE SYNTHESIS.³**

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).
- The findings were disseminated to researchers and policymakers at an invitational symposium in March, 2001.
- Final report submitted to the MOHLTC and published in February.
- The literature review has been updated and expanded to include patient safety outcomes. It will be published as a book by Jones and Bartlett Publications.

**KERR, LASCHINGER (CO-PIs), THOMSON,
O'BRIEN-PALLAS, SHAMIAN, MCPHERSON,
KOEHOORN, & LECLAIR**

MEMBERS: CANADIAN COUNCIL ON HEALTH SERVICES
FOUNDATION, CANADIAN HEALTHCARE ASSOCIATION, ONTARIO
NURSING ASSOCIATION, CANADIAN FEDERATION OF NURSES

S, CANADIAN NURSES ASSOCIATION, ODRE DES INFIRMIÈRES
MIER DU QUÈBEC, CANADIAN INSTITUTE OF HEALTH
ATION, COLLEGE OF NURSES OF ONTARIO, STATISTICS
A, CANADIAN PRACTICAL NURSES ASSOCIATION, & HEALTH
A

**MONITORING THE HEALTH OF
NURSES IN CANADA.¹**

Funded by: CHSRF (2000 - 2002)

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.
- Main findings will be presented at the RNAO Health Workplaces in Action meeting in Toronto, November, 2002.

KERR (PI), LEMIRE RODGER, LASCHINGER, HEPBURN, MAYRAND LECLERC, GILBERT, MURRAY, & O'BRIEN-PALLAS
PARTNERS: THE OTTAWA HOSPITAL

ADOPTING A COMMON NURSING PRACTICE MODEL ACROSS A RECENTLY MERGED MULTI-SITE HOSPITAL.^{3,5}

Funded by: CHSRF with additions from the Change Foundation and the Ontario MOHLTC and in-kind contribution from The Ottawa Hospital (2002 - 2005)

Stage: Starting

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

- To determine the multilevel impact of adopting a new, common clinical practice model for nursing care across three recently merged campuses of The Ottawa Hospital.
- It is hypothesized that the implementation of this new model will have direct impact at three different levels in the organization: individuals, units, and (former) hospitals.
- Three main research questions will be addressed: What are the effects of introducing a new model for nursing care on nurse work stress

- and nurse well-being?; What are the effects of introducing the new nursing care model on organizational climate, at both the unit and hospital (site) levels?; and What are the effects of introducing the new nursing care model on quality of patient care?
- Given the extent of hospital restructuring across Canada, by examining a hospital in the process of a substantial merger will help to demonstrate how adopting a standard model of nursing care will impact on nurse well-being, organizational climate, and nurse sensitive patient outcomes.
 - This study is of direct relevance and benefit to managers, policy-makers, and the nursing community at large.

**KERR (PI), MUSTARD, FRANCHE,
LASCHINGER, SHAMIAN, & SCHWARTZ
EXPLORING STRESS DIFFERENCES
BETWEEN FULL-TIME AND PART-TIME
NURSES.^{1,5}**

Funded by: NRU (2001 - 2002)

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.
- Data collection to be completed by Fall 2002, with a conference presentation planned for Spring 2003.

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.^{1,5}**

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.** ^{1,}
₃

Funded by: Workplace 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 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 perceived 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.^{1,5}**

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.
- Workplace predictors of occupational stress: Testing

- Cooper's stress model (2001-2002, data analysis underway).
- 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.^{1,3}**

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 are significantly related to collaboration with physicians and managers, and job strain (Almost).
 - Work empowerment and organizational-based self-esteem as 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.^{1,3,5}**

Funded by: NRU (2001 - 2002)

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.³**

Funded by: MOHLTC (2001 - 2002)

Stage: Completed

*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.**³

Funded: MaxBell Foundation (2002 _
2004)

Status: Pre-implementation

*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.

LOVE (PI), **HUNSBERGER**, **LANDEEN**,
COSKEY, HUNTER, & LAPPAN

**HOPEFULNESS AND THE NURSE:
THE ROLE OF HOPE IN THE CARE
OF MEDICALLY FRAGILE CHILDREN
WITH CANCER.³**

Funded by: Niemeier Fund (2000 _ 2001)

Stage: Data 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.
-

MANTLER, (PI), ARMSTRONG-STASSEN,
CAMERON, & HORSBURGH

**THE IMPACT OF HIRING INCENTIVES ON THE
RETENTION OF HOSPITAL STAFF NURSES.¹**

Funded by: SSHRC (2002 - 2005)

Stage: Data Collection

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

- To examine the impact of recruitment incentives on the commitment and retention of currently employed nurses.
- To make recommendations regarding the use of incentives for recruitment and retention.

MARKLE_REID (PI), WEIR, BROWNE,
SHADWICK, ROBERTS, & GAFNI

**FRAIL ELDERLY HOMECARE
CLIENTS: THE COST AND EFFECTS
OF ADDING NURSING HEALTH
PROMOTION SERVICES TO
HOMEMAKING.³**

Funded by: CHSRF (2000 _ 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 in order to provide appropriate care.

MCCUTCHEON, **DORAN (Co-PIs)**, EVANS,
MACMILLAN, **MCGILLIS HALL, PRINGLE,**
& SMITH

**THE IMPACT OF THE MANAGER'S SPAN OF
CONTROL ON NURSING MANAGEMENT
LEADERSHIP AND PERFORMANCE.¹**

Funded by: CHSRF (2001 - 2004)

Stage: Data analysis

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

- Will examine the influence of the manager's span of control (total number of staff reporting to the manager) on the relationship between nursing management, leadership, and performance, as measured by patient satisfaction, and nurses' job satisfaction, intent to stay, and turnover.

- Examine how the manager's leadership style affects nurse and patient outcomes.
- Examine how the manager's span of control influences nurse and patient outcomes.
- Investigate which particular leadership style contributes to optimum nurse and patient outcomes under differing spans of control.
- Increasing our knowledge of how the manager's span of control affects nursing leadership and subordinate effectiveness has implications for policy development regarding the number of subordinates a nurse manager can effectively supervise.
- Empirical evidence identifying the particular leadership style that contributes to optimum performance will help nurse leaders perform effectively, and positively influence nursing staff satisfaction, staff retention, quality of care, and unit labour turnover.

**MCGILLIS HALL (PI), DORAN, &
LASCHINGER**

**NURSING REPORT 2002: INDICATOR
TESTING AND VALIDATION.^{1, 5}**

Funded by: Ontario MOHLTC and
OHA (2002)

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

- Introduce and structure a nursing perspective within the Hospital Report Series in Ontario.
- Nursing Report 2001 identified evidence_based indicators

- representative of nursing care through input from key stakeholders and leaders in nursing in Ontario.
- Evaluate the selected indicators for feasibility and validity.

MCGILLIS HALL (PI), DORAN, LASCHINGER, MALLETTE, & O'BRIEN_PALLAS
NURSING REPORT 2001 (A COMPONENT OF HOSPITAL REPORT 2001).^{1, 5}

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.
- The Nursing Report 2001 was published in February 2002. A brief report of progress towards integration of the nursing indicators into the Hospital Report - Acute Care is forthcoming in December, 2002.

MCGILLIS HALL (PI), IRVINE DORAN, & SIDANI

**DEVELOPMENT AND TESTING OF QUALITY
WORK ENVIRONMENTS FOR NURSING.**^{3, 5}

Funded by: Ontario MOHLTC (2001
- 2003)

Stage: Quality worklife intervention
underway

*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 (PI), PINK, MCKILLOP,
O'BRIEN_PALLAS, & THOMSON**

**A COMPARATIVE ANALYSIS OF
MODELS FOR COSTING NURSING
SERVICES.**^{1, 3}

Funded by: CIHR (2001 - 2004)

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.

MCGILTON, GURUGE (CO-PIs), LIBRADO, CAMPBELL, YETMAN, & BOCH

IDENTIFICATION OF FACTORS THAT INFLUENCE STAFFS' ABILITY TO DEVELOP SUPPORTIVE RELATIONSHIPS WITH FAMILY MEMBERS IN COMPLEX CONTINUING CARE ENVIRONMENTS.⁵

Funded by: Collaborative Research Program: Rehabilitation and Long_Term Care (2002 -2003)

Stage: Submitted for ethics review at three facilities

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

- Address the paucity of information in the area of

family_staff relationships in complex continuing care environments from the perspective of the nursing staff. Specifically, to identify factors which influence the staffs' ability to establish supportive staff_family member relationships.

- This study is relevant to persons living in complex continuing care environments because the care the residents receive can be seen as dependent not only on individual staff and/or family members but also on the relationship of the staff and family members.
- An in_depth knowledge and understanding as to how staff build and maintain supportive relationships with family members will help improve the quality of care the residents receive.
- Most of the research studies to date have examined this issue from the perspective of the family members and there is a dearth of research from the perspective of the staff on this issue. This study will make a significant contribution to the nursing knowledge in the area of staff_family member relationships in complex continuing care.

**MCGILTON, MCGILLIS HALL (CO-PIs),
PRINGLE, O'BRIEN_PALLAS, KREJCI, &
WILLIAMS**

**IDENTIFICATION AND TESTING OF FACTORS THAT
INFLUENCE SUPERVISORS' ABILITY TO DEVELOP
SUPPORTIVE RELATIONSHIPS WITH THEIR STAFF.**³

Funded by: Canadian Health Services Research Foundation (2002 _ 2004)

Decision Making Partners:
Sunnybrook & Women's Health Sciences Centre, Baycrest

Centre for Geriatric Care, Toronto Rehabilitation Institute, Ontario Association of Non Profit Homes and Services for Seniors, Ontario Long_Term Care Association

Stage: Submitting protocols for ethics review

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

- Specific research questions to be addressed are: (1)What are the individual (personal and professional) and organizational (unit and facility) determinants that influence the supervisors' ability to establish supportive relationships for care providers from the perspective of the supervisors and care providers? (2)What are the relationships between supportive supervisory relationships and organizational (e.g., turnover, absenteeism), and nursing (e.g., job satisfaction, stress) outcomes?
- Policy makers, providers, and managers are concerned about the quality of care in long_term care facilities in Canada. Chronic dissatisfaction with the quality of nursing home care has led to calls for reform in the provision of care. This study is an attempt to address these concerns by focusing on interpersonal relationships between care providers and supervisory personnel.

- Results will provide long_term care organizations and policy makers with practical information concerning unit and organizational factors influencing supervisors' ability to be supportive and demonstrate what specific supportive behaviours influence outcomes.

MCGILTON (PI) & STREINER

CONTINUED TESTING OF THE PSYCHOMETRIC PROPERTIES OF RELATIONAL MEASURES.³

Funded by: Collaborative Research Program:
Rehabilitation and Long_Term Care (2001 _ 2002)
Stage: Data analysis

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

- To test if a self_report Relational Care Scale (RC scale) and an observational Relational Behaviors Scale (RB scale) which are based on the constructs of reliability and empathy of the care provider, demonstrate convergent validity.
- If this hypothesis holds true, there will be initial evidence that the observational scale is sufficient to capture the quality of relational care provided to residents with late stage dementia who cannot be interviewed.
- Preliminary analysis of 24 care provider/resident dyads indicate initial evidence of construct validity between the two scales.
- Potential implication of this finding is it will be possible to evaluate effective staff relational care, even for persons with dementia.
- Research to be presented at October 2002 Canadian Association of

Gerontology conference, Montreal,
Canada.

McKEEVER, COYTE, CHAMBON, DUNN,
FERNIE, GRAY, HARVEY, JADAD, KEARNS,
LEVINSON, O'BRIEN_PALLAS, REID,
ROSENBERG, SMITH, CARTER, COLANTONIO,
DICK, FLOOD, GIGNAC, HULCHANSKI,
MACKEIGAN, POLAND, SHORTER, STREINER,
& YOUNG

**HEALTH CARE, TECHNOLOGIES, AND PLACE: A
TRANSDISCIPLINARY RESEARCH TRAINING
PROGRAM.³**

Funded by: CIHR (2002 _ 2008)

Stage: Beginning

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

- A transdisciplinary training program for PhD students and Post_Doctoral researchers to:
 - prepare health researchers to understand, explain, and improve health outcomes associated with the new configurations of technologies, bodies, places, and work in 21st century health care;
 - foster a transdisciplinary, transprofessional, and transnational culture of research collaboration; and
 - function as a CIHR Research Training Epicentre linked to training programs across Toronto and Canada.
- The program will:
 - recruit outstanding doctoral and post_doctoral trainees from the health sciences, the

Appendix B

Nursing Effectiveness, Utilization and Outcomes Research Unit

humanities, social sciences,
engineering, and law;

- assemble a cohesive team of internationally renowned mentors and advisors to design and deliver a curriculum that synthesizes disciplinary perspectives and provides training in knowledge transfer, transdisciplinary teamwork, and ethical research leadership; and
 - partner with industry, government, and community organizations to facilitate research uptake; and use state_of_the_art distance education technologies to link with collaborating institutions.
-

**MCKILLOP (PI) & PINK
HOSPITAL REPORTING, FUNDING AND
PERFORMANCE MONITORING PRACTICES ACROSS
CANADA.¹**

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.
- Book published: "The Financial Management of Acute Care in Canada: A Review of Funding, Performance, and Monitoring Practices".

NAGLE (PI) & CLARKE

**ASSESSING THE AVAILABILITY OF INFORMATICS
EDUCATION FOR CANADIAN NURSES _
EDUCATIONAL INSTITUTION COMPONENT.^{1, 2, 3}**

Funded by: Office of Health
Information Highway, Health Canada (2002
- 2003) Stage: Survey design and
methods development
*Purpose/Outcomes/Deliverables and
Implications for clinical practice, policy,
and research:*

- With the rapid introduction of health care information systems and technology in practice settings there is a need to ensure that nurses are equipped with knowledge and skill in informatics in order to effectively discharge their Information and Communication Technology (ICT) related responsibilities in their employment settings.

- Describe and enhance the informatics education opportunities currently available to nursing students across the country, the level of preparedness of nursing faculties to deliver these offerings, and the ICT infrastructure and support for faculties in delivering offerings.
 - Findings will provide a vehicle for the dissemination of information about the state of Nursing Informatics (NI) education in Canada. It will assist schools of nursing who are working towards the integration of NI content into curricula to identify schools which may have already undertaken this work. Similarly, successes in preparing faculty with the knowledge and skills required to teach informatics curricula can also be shared and built upon. As well, schools that have ICT infrastructure and support in place may assist other schools in developing infrastructure and support.
 - The findings will be widely shared with the key stakeholder groups and individuals, published on the Canadian Nursing Informatics Association (CNIA) web_site with links from the Canadian Nurses Association and provincial association web sites, and distributed in report format to the Office of Health and the Information Highway (OHIH) office of Knowledge Development and Enhancement, all participants, and key stakeholder groups.
-

O'BRIEN-PALLAS (PI)

**NURSING HEALTH HUMAN RESOURCES FOR THE
NEW MILLENNIUM - NATIONAL CHAIR FOR
NURSING HUMAN RESOURCES.¹**

Funded by: CHSRF, The University
Health Network, & Ontario MOHLTC
(2000 - 2010)

Stage: Ongoing

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

- Worked closely with provincial and federal policy decision-making bodies (e.g., Ontario Joint Provincial Nursing Committee and Canadian Nursing Advisory Committee) to ensure that evidence is used in making HHR decisions.
 - Provided mentoring and educational opportunities to doctoral students, a CHSRF Career Reorientation Scientist, and research apprentices.
 - Consultant for CHSRF and Canadian Institute of Health Information related to national policy issues and publications.
 - Fostered international linkages with Australia, United States, Japan, and United Kingdom to support dissemination and understanding of current HHR statistics and quality of worklife issues.
 - Participated in design and implementation of the Dorothy M. Wylie Nursing Leadership Institute for nurses, administrators, and policy-makers.
 - Further information about Chair activities is available at:
www.hhr.utoronto.ca
-

**O'BRIEN-PALLAS & BAUMANN (CO-PIs)
DEVELOPMENT OF A HEALTH
HUMAN RESOURCE DATA BASE FOR
NURSING.¹**

Funded by: MOHLTC (1999 - 2004)

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

**O'BRIEN-PALLAS, BAUMANN, PIAZZA,
PRINGLE, TOMBLIN MURPHY, BIRCH,
KEPHART, NAGLE, MCGILLIS HALL,
DONNER, PINK, THOMSON, GUNDERSON,
LEMONDE, ALKSNIS, ZEYTINOTMLU, &
BLYTHE.**

THE NURSING LABOUR MARKET IN

**CANADA: AN OCCUPATIONAL/SECTOR
STUDY.**^{1, 2, 3, 4, 5}

Funded by: Nursing Sector/Labour
Market Study Management Committee
(2002 - 2003)

Stage: Beginning in December 2002
*Purpose/Outcomes/Deliverables and
Implications for clinical practice, policy,
and research:*

- To assess and analyze the current and future state of the nursing labour market in Canada. The findings from this project will inform a future phase of the Occupational/Sector Study focused on the formation of strategy and implementation.
- Will provide the basis for the first ever national, long-term nursing human resource development strategy and will incorporate the three regulated nursing occupational groups – Registered Nurses (RNs), Licensed Practical Nurses (LPNs), and Registered Psychiatric Nurses (RPNs) – and the range of settings where they practice.
- An inventory of active concurrent research of topics related to the nursing labour market at both the national and international levels.
- An occupational labour market analysis will describe the current status of each occupational group and the trends over time.
- A model of the nursing labour market can be used to generate projections of future nurse supply.
- An employer survey regarding key issues which influences how nursing work is completed considering both the corporate and quality mandate of employers and focus group and survey of nursing students to identify non-monetary motivations for entering nursing.
- Conduct reviews of nursing education and assessment of

capacity, international literature on nursing labour markets, and immigration and emigration trends to determine what data elements need to be considered in future data collection.

- Conduct an analysis of how changing health care needs contribute to changing patterns of nursing care delivery; career patterns to develop information describing typical career patterns for practitioners of the individual nursing occupations; inter-provincial mobility to identify the migration patterns of the three regulating nursing professional groups over the past decade.
- Examine the nurse-technology experience in relation to technologies utilized in a clinical care environment.
- Assess and describe the benefits of a career in nursing, from both the human capital and financial perspective.

**O'BRIEN_PALLAS, MEYER, ALKSNIS,
TOMBLIN MURPHY, WILLIAMS, THOMSON,
LUBA, & LEMONDE**

**EVALUATION OF PART ONE OF STRATEGY
7 OF NURSING STRATEGY FOR CANADA.²**

Funded by: Health Canada
(Contract) (2002).

Stage: Report writing

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

- This project evaluated whether nursing education seats “increased Canada-wide by at least 10% over

1998/99 levels over the next two years” for Registered Nurse, Registered Psychiatric Nurse, and Licenced Practical Nurse entry to practice programs (Advisory Committee on Health Human

Resources, 2000, p. 26).

- Publicly funded new entrant admission and quota data were collected and evaluated for this purpose. A secondary objective was to collect historical data from 1991 onwards and future quota until 2006/07. Data were also collected for Post-RN degree, Master in Nursing, and PhD in Nursing programs.

EN-PALLAS (PI), THOMSON, MCGILLIS HALL, PINK, TU,
ALKSNIS, AIKEN, & SOCHALSKI

PRINCIPAL DECISION-MAKER: SHAMIAN

**EVIDENCE BASED STANDARDS FOR MEASURING
NURSE STAFFING AND PERFORMANCE.¹**

Funded by: CHSRF (2000 - 2003)

Stage: Ongoing data collection and
data entry

*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.

- Data collection almost complete in five hospitals in Ontario and one in New Brunswick.

O'BRIEN_PALLAS, TOMBLIN MURPHY (CO-PIs), BIRCH, THOMSON, DUFFIELD, ALKSNIS GUNDERSON, ROOTMAN, PRINGLE, HUGHES, PENNOCK, KEPHART, HUBERT, TOMBLIN, NEVILLE, SMADU, & LEMONDE
DECISION_MAKERS: **SHAMIAN, AUFFREY, MACMILLAN, COGHLAN, CLOSSEN, WARD, & MOORE.**

**HEALTH HUMAN RESOURCES MODELLING:
CHALLENGING THE PAST, CREATING THE FUTURE.¹**

Funded by: Canadian Health Services Research Foundation, Open Grants Competition (2002 - 2005).
Status: Beginning in December 2002

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

- This program of research addresses the dynamic nature of the needs for nursing human resources, specifically the challenges involved in the provision and management of human resources that are responsive to those needs.
- To enhance existing demographic_focused approaches to Health Human Resources Planning (HHRP) by moving beyond considerations of supply and utilization to consider the factors and shocks that influence the health system.

- Project 1 will assess changes in the levels and distribution of health over time, will provide decision_makers with an evidence base that will allow the matching of nurse resources to changing population health needs.
- Project 2 will focus on understanding the way other inputs constrain or enhance the rate of production of nurse human resources in the hospital sector.
- Project 3 will assist in developing evidence_based strategies for retaining different target groups of nurses.
- This program involves partnerships between decision_makers, policy makers, and researchers from Ontario, Nova Scotia, Newfoundland & Labrador, Prince Edward Island, New Brunswick, and Saskatchewan.

PEACHEY (PI) & WEIR

**IMPACT OF NURSE MANAGERS/LEADERS
EMPOWERING BEHAVIOURS ON STAFF NURSE
WORKPLACE EMPOWERMENT, ORGANIZATIONAL
COMMITMENT, ABSENTEEISM AND PATIENT
OUTCOMES.^{1,3}**

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 (PI)

**THE WORK ENVIRONMENT &
HEALTH OF HOME CARE NURSES:
ETHICAL IMPLICATIONS.^{1,3}**

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.
-

PETER (PI) & MCKEEVER

**HOME CARE ETHICS:
IDENTIFICATION AND ANALYSIS OF ISSUES.
^{3,5}**

Funded by: Social Sciences and
Humanities Research Council (2002 _ 2005)

Stage: Ongoing

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

- To identify ethical issues pertinent to home care through a comprehensive review of health, bioethics, sociology, and lay literature published since 1975; to conduct an analysis to clarify and critique the terms, principles, and arguments which have been used to identify and address these ethical issues; and to propose and defend solutions to these ethical issues.
- As a result of health system restructuring and public preferences, more acute and long_term health care services are provided in the homes of Canadians. These services prevent, delay, or substitute for long_term and acute institution_based services. The demand for home care services is expected to rise as more clients are discharged from hospital earlier and sicker, and as the Canadian population ages. Technological advances have allowed for more medical treatments and assistive and monitoring devices to be now offered in the home.
- The consequences of these changes raise new unaddressed ethical issues for home care. Situations can arise where caregivers, do not have the resources needed to care for someone at home adequately. It can also be very difficult to maintain a person's privacy and dignity in the home when home care workers and high_tech equipment are frequently present.

- The purpose of this research is to identify, explore and analyze these issues ethical issues in order to provide direction to caregivers, care recipients, educators, researchers and policy makers.
- A series of papers will be written for the purposes of providing clarification and guidance to those concerned with ethical issues in home care.
- Make an original contribution to nursing because little ethical guidance is currently available to home care nurses.

**PREYRA (PI) & PINK
PERFORMANCE INCENTIVES IN THE
COMPENSATION CONTRACTS OF NON_PROFIT
HOSPITAL CEOs.⁵**

Funded by: SSHRC (2001 _ 2002)

Stage: Data collection

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

- To investigate performance incentives in the compensation contracts of non_profit hospital CEOs.
- As Canada's publicly funded hospitals face increasing pressure to provide accountability to government and to their service populations, how have hospital boards structured executive contracts to meet these challenges? To the extent that the non_profit board uses executive compensation to encourage the hospital CEO to achieve certain objectives, we will

explore how powerful this mechanism is, its limitations, and what the implications are for a hospital's ability to achieve benchmark levels of performance within its broader mission.

- Outcomes will include two or more articles for publication in peer-reviewed journals.

ROSENBAUM (PI), LAW, DOBBINS, & PLEWS
INFORMATION TRANSFER: WHAT DO DECISION_MAKERS WANT AND NEED FROM RESEARCHERS.³

Funded by: MOHLTC (2001 - 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 THE 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.
-

**SEMOGAS (PI), MAHONEY, & THOMAS
PREVENTING HOMELESSNESS AMONG STREET
YOUTH 16-25 YEARS OF AGE: GYBE PROJECT.³**

Funded by: Supportive Community
Partnership Initiatives (SCPI) (2001 - 2003)

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, KOEHOORN, THOMSON, & ALKSNIS
EFFECTS OF JOB STRAIN, HOSPITAL
ORGANIZATIONAL FACTORS AND INDIVIDUAL
CHARACTERISTICS ON WORK-RELATED
DISABILITY AMONG NURSES.^{1,5}**

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.

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.^{1, 5}

Funded by: NRU University of
Toronto (2001)

Stage: Final report completed
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 nurse's 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 (PI)

EXAMINING THE UTILITY OF
RANDOM ASSIGNMENT.³

Funded by: NRU (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.³

Funded by: National Institute of Health - National Institute of Nursing Research
(2001 - 2006)

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 (PI), IRVINE, PORTER,
LEFORT, O'BRIEN_PALLAS, & ZAHN
EVALUATING THE IMPACT OF
NURSE PRACTITIONERS IN ACUTE
CARE SETTINGS.^{1,3}**

Funded by: NHRDP & CIHR (1999 _ 2002)

Stage: Data analysis

*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), GAFNI, MARTIN_MATTHEWS,
BIRCH, BURBIDGE, ROSENTHAL, **DENTON**,
MOORE, BELAND, **FRENCH**, STODDART,

JOSHI, CHAMBERS, McDONALD, MAGEE,
ROSENBERG, MOUNTAIN, RAINA, PLOEG,
LIAW, ROBB, ROBERTSON, MACPHERSON,
SCARTH, ABERNATHY, & VEALL

**SOCIOECONOMIC DIMENSIONS OF
AN AGING POPULATION.¹**

Funded by: SSHRC, Major Collaborative Research
Initiatives (1998 _ 2003)

Stage: Data analysis

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

- Multiple research teams are investigating various dimensions of economic security and aging.
- One team is investigating preparation for later years.
- A qualitative study is in its final stages of data analysis.
- A model has been developed and manuscripts submitted.
- Analysis of large existing data sets being conducted to address questions posed by the other two teams.

STERN (PI), CHOCHINOV, & WEIR
**CANADIAN VIRTUAL HOSPICE:
KNOWLEDGE DEVELOPMENT AND
SUPPORT IN PALLIATIVE CARE.³**

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, MUELLER_BUSCH,
STEWART, & BLAND

**PROFILE OF PALLIATIVE ONCOLOGY PATIENTS
USE OF EMERGENCY ROOM SERVICES:
CORRELATES OF USE AND COST ESTIMATES.¹**

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.³**

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.

THOMAS (PI) & DOBBINS, O'BRIEN
IMPROVING COMMUNICATION
AMONG PUBLIC HEALTH
RESEARCHERS AND DECISION AND
POLICY MAKERS.³

Funded by: CHSRF (1999 - 2001)

Stage: Data analysis and report
writing

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

- To understand the information needs of decision and policy makers in public health, and to use this information to develop summary statements of systematic reviews.
- Decision and policy makers want short, to the point summaries of the results of systematic reviews. They want possible solutions to be presented, scope of the problem and very little to no information on the methods of the research.
- Summary statements for all the systematic reviews conducted by the Effective Public Health Practice Project to date will be re_written to conform to the preferences reported by decision and policy makers in public health in Ontario. They will also be translated into French.
- The results of this study will assist other researchers in summarizing the results of research. In addition, the expectation is that writing summaries that conform to the preferences of the target users will promote increased transfer and uptake of research into public health policy and practice.

TOMBLIN MURPHY, O'BRIEN-PALLAS (CO-PIs), BIRCH, PRINGLE, ROOTMAN, ALKSNIS DARLINGTON, KEPHART, & PENNOCK
DECISION-MAKERS: AUFFREY, BETHELOT, CLOSSON, CAMERON, GRINSPUN, JEANS, MACMILLIAN, SHAMIAN, WALL
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

Funded by: CHSRF (2000 - 2003)

Stage: Database development

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

- Question: “What are the effective mechanisms and policies for establishing, monitoring, and predicting the variety of needs for nursing services?”
 - Explore relationships among the health status of Ontarians and self-reported use of nursing services and nursing service utilization (as reported in the MIS data) in Ontario hospitals.
 - Explore the relationship between nursing service utilization and variations in mortality, unexplained readmission, length of stay, and patient satisfaction.
 - Develop a population needs indicator of nursing services.
 - 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.
-

TOURANGEAU (PI), TU, DORAN, PRINGLE,
MCGILLIS HALL, O'BRIEN_PALLAS,
VERMA, & LOZON

**NURSE STAFFING AND WORK ENVIRONMENTS:
RELATIONSHIPS WITH HOSPITAL_LEVEL
OUTCOMES.**^{1, 3, 5}

Funded by: CHSRF (2002 - 2005)

Stage: Post-intervention data collection

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

- Survey a sample of Ontario acute care hospital RNs & RPNs to determine their assessments of the nature of their work environments, their responses to these work environments, and their assessments of the outcomes of their work.
- Determine specific objective Ontario acute care hospital characteristics (e.g. nursing skill mix, nursing dose, hospital location, patient days, hospital size).
- Determine specific Ontario acute care hospital outcomes (mortality rates, readmission rates, length of stay) for medical and surgical patients.
- Determine relationships among the above variables, particularly between nursing-related hospital-level variables and the hospital-level outcomes of mortality, readmission, and length of stay.
- Identify and describe models of hospital nursing-related characteristics associated with best global hospital outcomes.

TOURANGEAU (PI), TU, DORAN, PRINGLE,
O'BRIEN_PALLAS, & MCGILLIS HALL

NURSING AND OTHER DETERMINANTS OF HOSPITAL LEVEL OUTCOMES SUCH AS 30_DAY MORTALITY AND READMISSION RATES.¹

Funded by: CIHR (2002 - 2005)

Stage: Beginning

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

- To propose and test theoretical models describing relationships between nursing-related and other hospital characteristics with two hospital quality of care indicators: 30_day mortality and 30_day readmission rates.
 - Study the determinants of 30-day mortality and readmission rates for hospitalized patients with a focus on studying nursing-related structures and processes that might influence hospital mortality and readmission rates.
 - Findings will be used to develop decision-assisting tools for hospitals to use when planning strategies aimed at improving 30-day mortality and unplanned readmission rates.
-

TRANMER (PI), ARTHUR, HAMILTON,
ADAMS, GROLL, O'CALLAGHAN, PARRY,
DAY, & BART

**QUALITY OF LIFE AND CAREGIVER BURDEN IN
PATIENTS OVER 75 YEARS OF AGE TREATED FOR
CORONARY ARTERY DISEASE.³**

Funded by: Heart and Stroke
Foundation (2002 _ 2005)

Stage: Data collection

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

- Systematically measure with validated instruments quality of life outcomes, including health related quality of life, disease specific quality of life, age related quality of life and level of symptom distress in patients 75 years of age and older treated for Coronary Artery Disease (CAD) with Coronary Artery Bypass Grafting (CABG) surgery, percutaneous intervention (PCI) or medication only from pre_treatment to one year post_treatment.
- Systematically measure with validated instruments health related quality of life and burden of care in caregivers of these patients from pre_treatment to post_treatment at similar intervals.
- Explore for significant associations between patient and caregiver structural variables and process variables (i.e., treatment and caregiver support) on patient quality of life outcomes.
- Obtain important information about the personal demands associated with the provision of care by informal caregivers and the overall effectiveness of active treatment strategies in elderly

individuals _ necessary information for the future planning of health care services for this population.

- Relevant to the increasing number of elderly Canadians with CAD and their caregivers, and to health care providers. Treatment options are currently provided to elderly patients with little knowledge or understanding of the long term risks and benefits.
- Most patients are willing to accept some risk if there is a reasonable likelihood of enhanced quality of life and reasonable burden of care. The information gained from this study will position health care providers better to answer these complex questions for patients and their caregivers.

UNDERWOOD (PI)

ENVIRONMENTAL SCAN OF HEALTH HUMAN RESOURCES IN PUBLIC HEALTH IN CANADA.¹

Funded by: Health Canada (2002)

Stage: Completed

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

- The purpose of this study was to assess what information has been collected and what analysis has been done within the past five years related to health human resources in Public Health in Canada.
- No systematic, ongoing inventory of positions, incumbents, vacancies and projected need for Public Health human resources in Canada is currently available. There is a clear

need to establish longitudinal, accurate estimates of capacity or shortfall of human resources in Public Health currently and for the future.

UNDERWOOD (PI)

PARTNERSHIPS FOR THE SKILLS ENHANCEMENT FOR HEALTH SURVEILLANCE PROGRAM⁵

Funded by: Health Canada (2002)

Stage: Completed

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

- Based on a search of current literature, developed a conceptual paper which defines options and principles relevant to the Health Canada Skills Enhancement for Health Surveillance Program engaging in partnerships with selected key organizations.
 - For partnerships to be successful there are some critical elements that merit careful consideration: organizational structure, common culture, power balance, professional autonomy, time, leadership, trust and communication, results, credit, and evaluation.
-

UNDERWOOD (PI), PICARD & CHAMBERS

INVESTIGATION OF OPPORTUNITIES FOR RESEARCH IN PUBLIC HEALTH PRACTICE: A SITE CONSULTATION.^{2,3}

Funded by: CIHR (2002)

Stage: Complete

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

- To increase our understanding of existing public health models that integrate research and education with policy and practice in Canada by consulting with selected Canadian public health sites and exploring the feasibility of developing and/or fostering a PHRED-like model in other Canadian settings.
 - All of the participants in these national consultations expressed interest and passion about integrating research, education and population/public health policy and practice. At the same time, they all demonstrated some organizational cultural differences amongst the service/university interests. The organizational goals and rewards are different between universities and public health agencies. There is a need to balance the academic research interests with the needs of the public health delivery system.
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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.^{3,4,5}

Funded by: Hospital for Sick Children Foundation (2001 - 2003)

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.^{3, 4, 5}**

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.⁴**

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.²**

Funded by: NRU (2001 - 2002)

Stage: Data collection and database
development

*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.

YOUNG (PI), DICK, MCGUIGAN, BOOTH,
IRVINE, WILLIAMS, FILLER, DAUB, & DALY
**INTEGRATION OF TELETRIAGE AND HOME CARE
SERVICES INTO A SUSTAINABLE SERVICE FOR
TORONTO CHILDREN.**³

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.
-

~~ZEYTINO-ŁU~~ (PI), SEATON & MORUZ
**OCCUPATIONAL HEALTH OF WOMEN IN NON-
STANDARD EMPLOYMENT.**¹

Funded by: Status of Women
Canada, Policy Research Grant (2001 -
2002)

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.
-

ZEYTINO-ŁU (PI) & WEBER

NONSTANDARD AND FLEXIBLE

**LABOUR CONTRACT ISSUES IN
WORKPLACES.¹**

Funded by: SSHRC (2000 - 2003)

Stage: Data collection

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

- To examine employer flexibility policies and employee outcomes in non-standard 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.⁴ Hall, T. (1993). Human Resource for Health: Models for Projecting Workforce Supply and Requirements. Geneva: World Health Organization. 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
- 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
- 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

⁴The fact sheets have been organized following Hall's (1993) HHR framework of planning, production and management.

- Health Human Resources Planning: Historical Overview of Healthcare in Ontario
 - Health Human Resource Development: Nursing in Ontario, 1997
 - 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
 - Risk Behaviour and Health Care Utilization
 - The Effect of Aging on the Health Care System
 - The Hospital Sector 1992-2000: A Changing Workplace for Nurses in Ontario
 - The Influence of Physician Supply, Payment Schemes and Alternative Providers on Health Care Utilization
 - What Factors Can Influence Health Care Utilization?
 - Nursing Demographics in Ontario
- 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
- 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 AND
MONOGRAPHS***

The following working papers are available through the NRU.

Title	Author(s)
pilot study: Work of nursing personnel in a government hospital in the province of Sindh, Pakistan - Final report	Kanji, Virani, Pirani, Sumar, Rahemtulla & Sergeant
Survey of Registered Nurses in Pakistan with university degrees - Final report	Kanji & Stanley
Returning to the workplace: The post-educational experience of the DWHP Programme Fellows - Final report	Sergeant, Beaton & Sochael
Interest in higher education held by Lady Health visitors (LHVs) in Pakistan - Final report	Gonsalves, Beaton & Badruddin
Evaluation of implementation of basic RN revised curriculum - Year one final report	Lee, Sumar, Beaton & Marshall
The initiation of a comprehensive nursing human resource database within the public health sector in Pakistan: A pilot study - Phase 1 final report	Fisher, Amarsi, Aziz, Moghul, Mansoor & Ishfaq
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	Stanley, Cassum, Husain, Khan, Rizvi & Sayani
Factors that influence variability in nursing workload and outcomes of care in community nursing.	O'Brien-Pallas, Murray, Irvine, Cockerill, Sidani, Laurie-Shaw & Gerlach
Nursing for the twenty-first century: Using information technology to enhance nursing practice.	Royle, Blythe, Boblin-Cummings, Deber, DiCenso, Hayward, Wright, Barnsley, Bayley, Gill-Morton & Smith

Appendix C

Nursing Effectiveness, Utilization and Outcomes Research Unit

Title	Author(s)
Effectiveness of public health nursing interventions parent-child health: A systematic overview of literature reviews.	Hayward, Ciliska, Mitchell, Thomas, Underwood & Dobbins
The effectiveness of community-based heart health projects: A systematic overview.	Dobbins & Thomas
Nurse run centres - The comprehensive approach to health care delivery: An annotated bibliography.	McGillion, Mallette, Silverman & Goodine
Competency based performance management - A literature review.	Wilshaw, Brown & Baumann
Interdisciplinary action and restructuring of health care Ontario: The impact on nurses.	Beardwood, Eyles, French & Walters
A systematic overview of the effectiveness of public health nursing interventions. An overview of adolescent suicide prevention programs.	Ploeg, Ciliska, Dobbins, Hayward, Thomas & Underwood
Worklife concerns of Ontario nurses.	Villeneuve, Semogas, Peereboom, Irvine, McGillis Hall, Walsh, O'Brien-Pallas & Baumann
Exploring the effects of change on nursing practice acute ambulatory settings: A qualitative study.	Martinus, Royle, Boblin- Cummings, Baumann, Oolup, Smith & Blythe
The nursing and personal care provider study.	O'Brien-Pallas, Charles, Blake, Luba, McGilton, Peereboom, McGillis Hall, Carter, Baumann & Bajnok
Learning needs of nurses working in first nations' communities and hospitals across Canada study.	Silverman, Baumann & Boblin- Cummings
Assessment of the need for nurse practitioners in Ontario. (supported by the Ontario Ministry of Health)	Mitchell, Patterson, Pinelli & Baumann
Woman and technology in health care. An invitational workshop.	Blythe

Title	Author(s)
systematic overview of the effectiveness of public health nursing interventions. An overview of community development projects.	Ploeg, Dobbins, Hayward, Ciliska, Thomas & Underwood
The process of downsizing in selected acute care hospitals: Budget reduction strategies and planning process.	Baumann, O'Brien-Pallas, Deber, Donner, Semogas & Silverman
The impact of childhood sexual abuse on the practice of nursing.	Gallop, McKeever, Donner, Lancee & Lueck
Long-term care: A synopsis of the literature and annotated bibliography.	Beckingham
Case costing and nursing workload: Past, present and future.	O'Brien-Pallas, Giovannetti, Peereboom & Marton
The effectiveness of home visiting as a strategy for public health nursing interventions - A systematic overview.	Ciliska, Hayward, Thomas, Mitchell, Dobbins, Underwood, Rafael & Martin
Effects of downsizing on RNs and RNAs in community hospitals.	Cameron, Horsburgh & Armstrong-Stassen
Issues of internal validity in research on interdisciplinary health care teams.	Patterson, Silverman, Guyatt, Charles, Molloy & Sanford
Blueprint for a data collection tool.	Organization of Research Coordinators and Assistants
Leadership and power: A gender and nursing issue.	Cohen
Factors that influence variability in nursing workload at the Hospital for Sick Children.	O'Brien-Pallas, Irvine, Peereboom, Murray, Ho, Beed & Young
Learning needs of registered nurses in Ontario.	Boblin-Cummings, Baumann & Rath
Utilization of nurse practitioners in Ontario. A discussion paper requested by the Ontario MOH.	Mitchell, Pinelli, Patterson & Southwell
Evaluation research in public health nursing.	Hayward, Ciliska, Mitchell, Thomas, Underwood & Rafael

Appendix C

Nursing Effectiveness, Utilization and Outcomes Research Unit

Title

Author(s)

Public health nursing and health promotion. A Hayward, Ciliska, Mitchell,
background paper for the systematic overview of Thomas, Underwood & Rafael
the effectiveness of public health nursing
interventions.

Organizing the nursing workforce: A review of the Gillow
literature.

The following monographs are available
through the NRU.

h 1 Job Satisfaction and Turnover Among Nurses: A Review and Meta-Analysis Irvine & Evans

h 2 Towards an Understanding of Nurses' Lives: Gender, Power and Control Donner, Semogas & Blythe

CO-PRINCIPAL AND CO- INVESTIGATORS' PUBLICATIONS

The following are 2001-2002 publications by NRU Co-Principal and Co-Investigators (highlighted in italics). The numbering system refers to the planning⁵, production⁶, and management⁷ categories of the HHR framework (Hall, 1993).

Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J. A., Busse, R., Clarke, H., Giovannetti, P. Hunt, J., Rafferty, A. M., & Shamian, J. (2001). Nurses' reports of hospital quality of care and working conditions in five countries. *Health Affairs*, 20, 43-53.³

Al-Ma'Aitah, R., Cameron, S., Armstrong-Stassen, M., & Horsburgh, M. (in press). The effect of unit type and gender on Jordanian nurses' job satisfaction. A comparison of OR, medical surgical and critical care nurses. *Seminars in Perspective Nursing*.³

Almost, J., & Laschinger, H. K. S. (in press). Workplace empowerment, collaborative work relationships, and job strain in nurse practitioners. *Journal of the American Academy of Nurse Practitioners*.³

Armstrong-Stassen, M. (in press). Job transfer during organizational downsizing: A comparison of promotion and lateral transfers. *Group & Organization Management*.³

⁵ Planning: The process of estimating the number of health personnel and the kind of knowledge, skills, and attitudes required to achieve predetermined health targets.

⁶ Production: Assessing the quantity and quality of existing educational programs including curricula, physical facilities, faculty, and enrolment.

⁷ Management: Mobilization, motivation, development, and fulfilment of human beings in and through work. Concerned with working environments, staffing patterns, and incentives.

*Armstrong-Stassen, M. (2002). Designated redundant but escaping layoff: A special group of layoff survivors. Journal of Occupational and Organizational Psychology, 75, 1-13.*³

*Armstrong-Stassen, M. (2001). The reactions of older employees to organizational downsizing: The role of gender, job level, and time. Journal of Gerontology: Psychological Sciences, 56B, 234-234.*³

*Armstrong-Stassen, M., Cameron, S., & Horsburgh, M. E. (2001). Downsizing-initiated job transfer of hospital nurses: How do the job transferees fare? Journal of Health and Human Services Administration, 23, 470-489.*³

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Armstrong-Stassen, M., Wagar, T. H., & Cattaneo, R. J. (2001). Sustaining a service quality initiative in the midst of downsizing: Can it be done? *Journal of Quality Management*, 6, 211-233.³

Bally, K., Chesnick, K., Campbell, D., & Tranmer, J. E. (in press). The effects of patient controlled music therapy during coronary angiography on post procedure pain and anxiety. *Critical Care Nurse*.³

Baumann, A. (2001). Leadership, delegation and quality management. In P.A. Potter and A.G. Perry (Eds.), *The Canadian fundamentals of nursing* (2nd ed., 64-85). Barrie, Canada: Harcourt Publications.³

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Blake, J. T. & Carter, M. W. (in press). Physician and hospital funding models under decreasing resources. *Socio-Economic Planning Sciences*.¹

Blythe, J., Baumann, A., & Giovannetti, P. (2001) Nurses experiences of restructuring in three Ontario hospitals. *Journal of Nursing Scholarship*, 33, 61-68.³

Bruce, S., Sale, J., Shamian, J., O'Brien-Pallas, L., & Thomson, D. (in press). Musculoskeletal injuries, stress and absenteeism among Ontario nurses: Interviews with nurses, hospital administration and occupational health and safety. *Canadian Nurse*.

Butt, M., Baumann, A., O'Brien-Pallas, L., Deber, R., Blythe, J., & DiCenso, A. (2002). The learning needs of nurses experiencing job change. *The Journal of Continuing Education in Nursing*, 33, 67-73.¹

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Carter, M. W. (2002). Health care management – Diagnosis: Mismanagement of resources. *Operations Research/Management Science Today*, 29.²

Carter, M.W. & Johnson, D.G. (2001). Extended clique initialization in examination timetabling. *Journal of the Operational Research Society*, 52, 538-544.³

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Ciliska, D., DiCenso, A., Pinelli, J., & Cullum, N. (submitted). Nurses in established practice: How to learn about evidence-based nursing. *AACN Clinical Issues*.³

Ciliska, D. K., Pinelli, J., DiCenso, A., Cullum, N. (2001). Resources to enhance evidence-based nursing practice. *AACN Clinical Issues*, 12, 520-528.³

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Deber, R. B. (2002). Maz confusion? Reflections on "A Framework for Reform". *Healthcare Papers*, 2, 27-30.³

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