

**Health Systems and Workforce Research Unit  
Strategic Plan 2009-2012**

**Background**

The Health Systems and Workforce Research Unit (originally titled *Research Initiatives in Nursing and Health*) has been operational since 2001. Initially, its mandate was “to contribute, through systematic inquiry, to a clear articulation and valuing of the role of registered nurses and other members of the health care team within a reformed health system and to promote excellence in professional nursing practice, management, research and education.” From the beginning, it was recognized that the research agenda for the department should be developed within the context of the broader Calgary Health Region agenda, in order to ensure that priorities for research remain consistent with the organisational vision and mission. The Health Systems and Workforce Research Unit (HSWRU) program of research has continually evolved in response to regional and provincial priorities. The recent creation of Alberta Health Services provides an opportunity to reflect on the role of HSWRU in contributing to the achievement of newly formulated provincial vision, mission and goals.

**Vision, Mission and Strategic Priorities**

*Vision 2020*, released by Alberta Health and Wellness in December 2008 lays out a clear vision for the health care system now and in the future. It sets the course for development of a “stronger, more efficient and sustainable publicly funded health system.” HSWRU is well positioned to support the strategic directions of Alberta Health Services (AHS), since a major focus of our work is to inform decisions aimed at optimizing the utilization of the health workforce and establishment of more effective and efficient service delivery models.

In order to achieve its objectives, HSWRU translates the findings that arise from applied research into recommended strategies for establishment of new models of service delivery and optimized utilization of the health workforce.

**Approach**

The HSWRU conducts *applied* research and evaluation that have as an ultimate purpose the improvement of the health of the population, the effective utilization of health care providers and sustainability of the health delivery system. Through its focus on applied health systems and workforce research and evaluation, HSWRU examines the relationship that exists between the *structural* (e.g. service delivery models, staff mix /education/ experience, leadership, workloads) and *functional* aspects of care delivery (e.g. monitoring, surveillance, treatment, health promotion) and their impact on patient (e.g. self-care ability, safety), provider (e.g. satisfaction, turnover) and system (e.g. cost effectiveness) *outcomes*. To be successful, the research conducted in the Unit cannot be divorced from or unrelated to the day-to-day issues or problems that arise in professional practice, health care management or health professional education, at the unit/program,

organizational or system levels. Since the practice of health care providers is highly influenced by organizational culture and policies, pre-service education, regulatory and legislative authorities, the Unit has established collaborative partnerships with decision-makers and health care managers, staff, professional organizations, educational institutions and government representatives within Alberta and beyond in developing and implementing its research projects.

Funding for the Unit's operations is derived from a combination of internal and external funds (e.g. Alberta Heritage Foundation for Medical Research, Health Canada, Canadian Institutes for Health Research, Canadian Health Services Foundation and Alberta Health & Wellness). External funding is aggressively pursued to support research and evaluation projects.

### **Strategic Objectives**

HSWRU supports the vision and mission of Alberta Health Services through its focus on conducting applied research and evaluation that informs

- a. health workforce utilization and care delivery models
- b. development of strategies for improving patient/population, provider and health care system outcomes.

### **Assumptions Arising from and Guiding our Program of Research**

- Population based health needs data are fundamental to informing planning and management of the health workforce and redesign of service delivery.
- Provision of client-centred care requires effective collaborative practice. Clients must be actively engaged in making decisions about their care.
- Collaborative practice is a means to ensuring patient safety and quality of care.
- Every health *system* issue (e.g. capacity pressure) is in some way linked to management (e.g. service delivery model) and utilization (e.g. role enactment) of the health workforce.
- Patient, provider and system outcomes are inextricably linked to the structure (e.g. context within which care is delivered) and processes (e.g. professional practice) of care delivery.
- Clarity of roles at all levels and in all sectors of the health care system increases effectiveness and efficiency and reduces duplication and gaps in service delivery.
- Leadership support and change management skill at all levels of the organization is essential to achievement of system change.
- Change at the to unit / program level must be designed from a systems perspective and must be sustained through ongoing monitoring and support at the organizational level

### **Priorities for Research 2009-2012.**

The HSWRU team has identified several priorities for future work, based on past and current research and the experiences / knowledge gained by team members through their

involvement in evaluation and research projects. These priorities will need to be revised or validated through consultation with a wider group of stakeholders.

- a) Pre-service education and continuing education: There is a need to better understand the role that preceptors, clinical educators and advanced practice professionals can play in helping to “socialize” future providers to their full scope of practice within the context of interprofessional team work. This includes inquiry into the role that mature/experienced staff can play in serving as mentors/coaches for new and current staff and establishment of innovative ways to create increased clinical practicum capacity as we move toward optimization of the role of all professionals working in effective, collaborative interprofessional teams. There is also a need to examine approaches for facilitating the transition of health care providers from student to new graduate, in order to reduce attrition in the first few years after graduation.
- b) Change management: We need to better understand how to help managers, leaders and staff implement flexible, responsive and effective practice and service delivery changes, in spite of the chaotic and stressful environment that currently characterizes our workplaces. Our current research suggests the need for better information / evidence about how to effectively manage change, how best to engage staff in and support them through change and what strategies are most effective in enabling interprofessional collaboration in service delivery. In particular, we need to focus on approaches to creating practice environments that will support the type of professional practice (i.e. full enactment of roles) for which future health professionals are being educated.
- c) Community and Long-Term Care: a significant number of research projects conducted by our Unit to date have focussed on the acute care setting. We need to move into community (e.g. home care, mental health & public health), primary care and long term care to determine whether the issues that have surfaced through research in acute care also apply in those settings, including determining whether there are urban/rural differences.
- d) Continuum of Care: Data suggest the need to examine the structure of service delivery across the continuum of care, with particular emphasis on transition points and the role of various members of the collaborative practice team in providing comprehensive care, while eliminating some of the duplication that now appears to exist. The data also suggest the need to examine how we might improve linkages between primary medical care, acute care and other community based providers. Research has clearly identified the potential that exists to improve patient and population health outcomes through better integration of services across the continuum of care.
- e) Design of Service Delivery. Our research has highlighted the need for more research into what are the best service delivery models for specific contexts

(variable populations and geographic settings) and how best to implement and evaluate the effectiveness of those models.

- f)* Staffing ratios: Job redesign research has highlighted an imbalance in the current ratio of RNs to LPNs and HCAs on medical care units. More research is needed to determine whether collaborative practice models employing RNs, LPNs and HCAs would be appropriate with different population groups. More research is also needed into how best to incorporate other health workers (e.g. allied health professionals and support workers) into collaborative practice models. Ultimately, this research will inform decisions about the number and type of future professionals needed to optimize the utilization of health care providers, using the most effective and efficient service delivery models.
  
- g)* Information to support decision-making: Our research has highlighted the gap that currently exists in using available data for making evidence informed management decisions. This represents an opportunity to enhance decision-maker and staff knowledge about the process of transforming raw data into pertinent information for making decisions about the utilization of the health care workforce and the design of health care services.

### **Stakeholder Relationships**

To achieve its aims and ensure the relevance of the research being conducted by HSWRU, formal linkages need to be established with Senior Decision-Makers in Alberta Health Services, to ensure that the research appropriately reflects and informs policy and practice related to the utilization of the health care workforce and the design of service delivery. Strong linkages must also be maintained with Human Resource planners to ensure consistency in approaches to estimating future workforce needs.

**Publications HSWRU**

- Armitage GD, Suter E, Verhoef M, Bockmuehl C, Bobey M. Women's needs for CAM information to manage menopausal symptoms. *Climacteric*, 2007, 10:215-224.
- Arndt J, King S, Suter E, Mazonde J, Taylor E, Arthur N. Socialization in health education: encouraging an integrated interprofessional socialization process. *Journal of Allied Health*, 2009, 38:18-23.
- Emery HJC, Gerrits K. The demand for private health insurance in Alberta in the presence of a public alternative. In *Health Services Restructuring in Canada: New Evidence and New Directions*. Beach et al. (Ed.). Kingston ON: McGill-Queen's UP. 2005. 111-146.
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- Suter E, Arndt J, Arthur N, Parboosingh J, Taylor L, Deutschlander S. Role understanding and effective communication as core competencies for collaborative practice. *Journal of Interprofessional Care* 2009, 23(1):41-51.
- Suter E, Arndt J, Lait J, Jackson K, Kipp J, Taylor L, Arthur N. How can front line managers demonstrate leadership in enabling interprofessional practice? *Healthcare Management FORUM*, 2008, 20(4):38-42.
- Suter E, Baylin D. Choosing art as a complement to healing. *Applied Nursing Research*, 2007, 20(1):32-38.
- Suter E, Hyman M, Oelke ND. Measuring key integration outcomes: a case study of a large urban health centre. *Health Care Management Review*, 2007, 32(3):226-235.
- Suter E, Oelke ND, Hyman M, Buzath J, Nimmock M. Evaluation of planning and implementation for an innovative health centre. *Healthcare Management FORUM*, 2006, 19(3):26-31.
- Suter E, Vanderheyden L, Trojan L, Verhoef M, Armitage GD. How important is research-based practice to chiropractors and massage therapists? *JMPT*, 2007, 30(2):111-115.
- Suter E, Verhoef M, Bockmuehl C, Forest N, Armitage GD, Bobey M. Women's approach to information gathering and evaluation of complementary and alternative therapies to manage menopausal symptoms. *Canadian Family Physician*, 2007, 53:84-90.

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- Trojan L, Suter E, Arthur N, Taylor E. Evaluation framework for a multi-site interprofessional practice and education intervention. *Journal of Interprofessional Care* (accepted December 2008).
- Wallace D, McNeil D, Dodd M, Churchill J, Oelke ND, Oberle K, Arnold S. A Pregnancy Wellness Guide to Enhance Care through Self-Assessment, Personal Reflection and Self-Referral. *JOGNN* (accepted for publication December 2008).
- White D, Suter E, Parboosingh J, Taylor E. Communities of practice: creating opportunities to enhance quality of care and safe practices. *Quarterly Healthcare Quarterly*, 2008, 11(Sp):80-84.
- White D, Oelke ND, Besner J, Doran D, McGillis Hall L, Giovanetti P. Nursing scope of practice: descriptions and challenges. *Canadian Journal of Nursing Leadership*, 2008, 21(1):38-51.

### **Submitted**

- Armitage GD, Suter E, Oelke ND, Adair C. Health systems integration – What is the current evidence? *International Journal of Integrated Care* (submitted December 2008).
- Deutschlander S, Suter E, Arthur N, Paton B, Taylor E. Interprofessional education: enhancing final practice in nursing. *Canadian Journal of Nursing Leadership* (submitted September 2008).
- Lait J, Suter E, Arthur N, Taylor E. Interprofessional mentoring of students: an Alberta project. *Canadian Nurse* (submitted December 2008).
- Oelke ND, Cunning L, Andrews K, Congdon V, Martin D, MacKay A, Kuschminder K. Organizing care across the continuum: primary care, specialty services, acute and longterm care. *Healthcare Quarterly* (submitted February 2009).
- Suter E, Oelke ND, Adair C, Armitage GD. Ten key principles for successful health systems integration. *Healthcare Quarterly* (submitted October 2008).
- Wallace J, Friesen S, White D, Gilmour J, Lemaire J. The introduction of an electronic patient care information system and health care providers' job stress - A mixed methods study. *Journal of the American Medical Informatics Association* (submitted December 2008).

### **Reports**

- Enhancing Nursing Role Effectiveness Through Job Redesign, [Web Link to Full Report](#) January 2009 (Study funded by Alberta Heritage Foundation for Medical Research)
- Role Clarity: An Interprofessional Perspective, Full Report January 2009
- Agency Nurse Pilot Project Evaluation, Full Report January 2009
- Creating an Interprofessional Learning Environment through Communities of Practice: An Alternative to Traditional Preceptorship, [Web Link to Full Report](#) May, 2008 (Study funded by Health Canada)
- Patient Journey: The Experience of Four COPD Patients, [Web Link to Full Report](#), April 2008

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Relating Health Care Environment Design to Health Outcomes: Post Occupancy Evaluation of the Ward of the 21st Century, [Web Link to Full Report](#) (Executive Summary), February 2008 (Study funded by Health Quality Council)

Health Systems Integration: Definitions, Processes and Impact: A Research Synthesis, Systematic Review, [Web Link to Full Report](#) October 2007 (Study funded by CIHR)

Okotoks Health and Wellness Centre Evaluation, [Web Link to Full Report](#), July 2006

South Calgary Health Centre Follow-up Evaluation, [Web Link to Full Report](#), Sept 2006

South Calgary Health Centre Evaluation Report, [Web Link to Full Report](#) Nov 2005

A Systematic Approach to Maximizing Nursing Scopes of Practice, [Web Link to Full Report](#) Sept 2005 (Study funded by CIHR)

A Systematic Approach to Maximizing Nursing Scopes of Practice: The Feasibility of Collecting and Analyzing Comparable Data Across Three Health Regions, [Web Link to Full Report](#) Sept 2005

### **HSWRU Funding Received**

- 2009-2010    Creating Enticing Environments for Teaching and Learning. Alberta Health and Wellness Enhancing Clinical Capacity Project Fund (\$185,600)
- 2009-2010    Enhancing Participation in Cancer Screening in Alberta: Evaluation Alberta Cancer Board (\$80,000)
- 2008-2009    Can interprofessional collaboration provide HHR solutions? A Knowledge Synthesis; CIHR-IHSPR Knowledge Synthesis (\$100,000)
- 2008-2009    Evaluation of System-wide Case Management. Calgary Health Region, Transition Services (\$91,845)
- 2008-2009    Primary Care Network Evaluation; Calgary Primary Care Networks (4); (\$120,000)
- 2007-2010    Evaluation of the Introduction of Internationally Educated Nurses to Alberta; Alberta Health and Wellness, College & Association of Registered Nurses of Alberta and Mount Royal College (\$195,000)
- 2007-2008    Primary Care Network Evaluation; Calgary Primary Care Networks (4); (\$100,000)
- 2006-2009    Health Workforce Research Network of Alberta; Alberta Health and Wellness (\$405,000 – of which \$125,000 was allocated to Evaluation of the Introduction of Internationally Educated Nurses to Alberta)
- 2006-2009    Optimizing the Practice of Registered Nurses in the Context of an Interprofessional Team in Primary Care; Canadian Institute of Health Research and Alberta Heritage Foundation for Medical Research (\$298,905)

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- 2006-2008 Health services integration definitions, processes and impact - a Research Synthesis. Canadian Institutes of Health Research (CIHR); Scoping reviews and research synthesis (\$69,410)
- 2006-2008 Relating health care environment design to health quality outcomes. Health Quality Council of Alberta (HQCA) Program of Applied Health Research (\$70,000)
- 2006-2008 Creating an interprofessional learning environment through communities of practice. Health Canada Health; Care Strategies and Policy Contribution Program (\$1,191,624)
- 2005-2007 An interprofessional population health initiative to develop educational and clinical capacity in Local Primary Care Initiatives Alberta Health and Wellness Enhancing Clinical Capacity Project Fund (\$498,089)
- 2005-2008 Enhancing Nursing Role Effectiveness through Job Redesign. Alberta Heritage Foundation for Medical Research: Health Services Research (\$198,531)
- 2003-2005 A Systematic Approach to Optimizing Nursing Scopes of Practice; Canadian Health Services Research Foundation (CHSRF), Canadian Institute for Health Information (CIHI) and Alberta Heritage Foundation for Medical Research (AHFMR) (\$300,000)