Researchers at the Pan-Canadian Health Human Resources Network have undertaken various health human resources infrastructure activities including the creation of an online searchable library of the Canadian Human Resources literature between 2000 to present.

The goal of our online, searchable library is to assemble and make available to a range of knowledge users and research both the published and grey literature on Canadian health human resources research.

This tool will make it easy to navigate and access valuable research findings.

Updated on an on-going basis, the CHHRN library will be a collection of journal articles and grey literature including reports, research-based resource materials, power point presentations as well as citation and summary information for restricted publications with easy links to full content.

Open access materials will be attached for easy downloading!

Content areas of this searchable library cut across 46 categories and include key words for health human resources, health sectors, setting of the research, key methods and data sources.

The on-line library has just reached more than 5000 French and English language references!!

The on-line library is available on the CHHRN website at www.hhr-rhs.ca!!

SEND US YOUR HHR RELATED PUBLICATIONS, REPORTS AND POWER POINT PRESENTATIONS!!
CHHRN is pleased to co-host in conjunction with the Royal College of Physicians and Surgeons of Canada the 14th International Health Workforce Collaborative (IHWC) conference in Quebec City, May 6th to 9th, 2013 at the Loews Hôtel Le Concorde.

The conferences of the IHWC brings together policy makers, academics, researchers and practitioners from the United States, Canada, Australia and United Kingdom with responsibility for and interests in a range of health workforce issues. Delegates include governmental and non-governmental policy makers and analysts, economists, researchers, health professional educators, health service clinicians and managers. The conferences typically include approximately 20 delegates from each of these countries and guests from several other countries and organizations.

The aims of the conference are:
- to promote exchange of policy approaches across countries that address health workforce planning and that enhance the ability of each country to respond to workforce needs;
- to promote understanding of global trends that affect health workforce policies; and
- to promote international collaboration in health workforce research, evaluation, policy and planning.

**Highlights from the Conference**

- Updates from country workforce agencies
- Debate on professional autonomy versus government policy imperatives
- Panel on Assuming Adequate Specialists, Generalists and a Health Workforce Where its Needed
- *plus* a poster session highlighting cutting edge research

The International Health Workforce Collaborative (IHWC) conference presents a valuable opportunity to better understand global trends that affect health workforce policies and to promote an exchange of policy approaches across similar countries on health workforce planning.

For more information on the conference, please visit:

Dear CAHSPR Members,

In response to the fact that health human resources has been identified as a priority area in three consecutive Listening for Direction exercises, and following the example set by the Primary Care, Mental Health, and Student Theme Groups, we are proposing to create a new Health Human Resources Theme Group for CAHSPR. This group will be comprised of researchers, decision-makers, planners, health professionals, and others who share an interest in health human resources research, policy and planning. The mission of the group will be to 1) facilitate networking, knowledge exchange and collaboration among individuals and organizations who have an interest in health human resources planning; and 2) elevate the profile, and improve the dissemination, of health human resources research and policy at the CAHSPR conference and within the broader CAHSPR community.

This effort is being initiated by:

Ivy Bourgeault, (Professor, Interdisciplinary School of Health Sciences, University of Ottawa; Canadian Institutes of Health Research Chair in Health Human Resource Policy; Central Canada Lead, Pan-Canadian Health Human Resources Network);

Morris Barer (Professor and Director, Centre for Health Services and Policy Research School of Population and Public Health, University of British Columbia; Western Canada Lead, Pan-Canadian Health Human Resources Network); and

Gail Tomblin Murphy (Professor and Director WHO/PAHO Collaborating Centre of Health Workforce Planning and Research School of Nursing and Faculty of Medicine, Dalhousie University; Eastern Canada Lead, Pan-Canadian Health Human Resources Network).

These three individuals have indicated a willingness to provide early leadership to the theme, until such time as theme members can elect a steering/leadership group.

We are hoping to advance this work to a point where we are able to hold a theme-based meeting before or during CAHSPR’s annual conference in May 2013 (May 28-30 in Vancouver).

If you are a researcher, manager, policy-maker, or health professional engaged or interested in health human resources research, policy, or planning, and you are potentially interested in participating in a CAHSPR theme group focused around these areas, please contact Chantal Demers at cdemers@health.uottawa.ca. We are also looking for a few individuals who would be interested in joining a Steering Committee, which would be responsible for planning the 2013 pre-conference and conference activities within the HHR theme.

Thank you very much for your interest,

Adalsteinn Brown
President, Canadian Association for Health Services and Policy Research (CAHSPR)
Director, Institute for Health Policy, Management, and Evaluation (HIPME)
Division Head, Public Health Policy, Dalla Lana School of Public Health
A growing body of literature on internationally educated health professionals (IEHPs) reflects the increased policy relevance of the recruitment, recognition and integration of IEHPs. This synthesis reports on the findings from a knowledge synthesis of 401 academic and grey literature sources published between 2000 and 2012 on IEHPs in Canada. The types of papers in the review include empirical studies and reports from NGOs, including professional certification bodies, and educational institutions.

Medicine and nursing dominate the literature on IEHPs, as does a focus on the province of Ontario. Key themes highlighted in the literature extraction process focus on preimmigration and early arrival activities and programs, credential recognition and professional recertification, bridging and residency training programs, alternative paths to integration and workplace integration. While an overarching concern across the literature is with workplace integration, professional recognition and bridging programs, there are differences across professions, with the issue of workplace integration being the most popular category for nursing, and residencies and bridging programs in the case of medicine.

**Pre-Immigration Activities and Programs**
Experiences differ largely between those who have been recruited or undertaken professional recognition activities prior to immigrating and those who have not. Many IEHPs may arrive in Canada without having undertaken explicit investigation of the credential verification and recognition process. If this is the case, this puts them at a significant disadvantage. Many reports recommended that the credential assessment and registration process be undertaken pre-arrival and many professions have invested time and resources into information portals to encourage this.

There is increasing recognition of the ethical issues of active recruitment of IEHPs, particularly from resource poor countries with developing health systems. Nevertheless, there continues to be instances of intermittent recruitment efforts, particularly of nurses and to a lesser extent, physicians and pharmacists.

**Early Arrival Activities and Programs**
Early system navigation programs are important to assist integration and are assisted through immigrant settlement and similar organizations such as the one undertaken by the Access Centre for Internationally Educated Health Professionals.

**Credential Recognition and Professional Recertification**
Three general themes exist:
- IEHP’s perceptions that the credential recognition and professional recertification process is lengthy, complex and lacks clarity;
- Stakeholder recognition of this experience; and
- Policies and programs that have been put in place to respond to these concerns.

It is not yet clear whether those policies are fully addressing concerns. There is an inherent time lag in the impact of recent policies and programs on the experiences of IEHPs and therefore in the literature.

Many of the barriers and facilitators to professional recognition are similar across internationally educated health professional groups (e.g., challenges of achieving language competency), but few studies take an explicitly comparative approach. This would be a promising area for research. The literature also reveals another layer of barriers and discrimination on top of that for credential assessment and professional recognition.
Bridging and Residency Programs
Despite wide variation in the content and structure of bridging programs, they are often identified as promising practices for facilitating the integration of IEHPs. IEHPs who complete such programs report a better knowledge of the culture of health care in Canada and improved communication skills. There is an ongoing need for integrated bridging programs both within the professional infrastructure as well as interprofessionally. In the case of medical residencies, there is a greater level of integration, at least within the medical profession.

There is currently little research that compares different bridging program models. This may be due in part to the precarious nature of these programs due to their lack of sustainable funding. There are also opportunities for bridging programs to draw from each other in a more integrated manner.

Alternative Paths to Integration
Research on alternative paths to integration or shifts to alternative professions is lacking. Undertaking in-depth research with the Access Centre for Internationally Educated Health Professionals may offer some insights.

Workplace Integration
Workplace integration literature has focused on the profile of IEHPs in terms of location and sector of practice more so than an examination of what it is that IEHPs do and how that compares to Canadian educated health professionals. This is an important area to focus research.

More explicit examination of employers’ perspectives on the role they could and should play is another promising area for research development. By highlighting promising practice employers would be able to share effective strategies to address the needs of both Canadian and internationally trained health professionals.

The full synthesis report for this topic and the ones that follow will soon be available on the CHHRN website
www.hhr-rhs.ca
Internationally, there are increasing numbers of women entering the physician workforce and enrolled in medical school and residency programs. In Canada, 60% of family practice trainees are women and the number of female physicians increased by nearly 23% between 2007 and 2011 alone (compared to a 9% increase in the number of male physicians over the same period). This shift in physician workforce demographics has been labeled the “feminization of medicine.”

The increasing proportion of women practicing medicine may potentially contribute to a shortage in service supply. If female physicians are less productive, have shorter overall careers, see a restricted patient population, or deliver a more restricted basket of services compared to their male counterparts, then the increasing feminization of the workforce may well necessitate an increase in overall physician numbers to adequately meet population needs.

A recent comprehensive knowledge synthesis of over 130 academic and grey literature sources published between 1990 and 2012 investigated the impact of an increasing proportion of females in the physician workforce on levels of service provision and human resources planning.

**Common Themes in the Literature**

The bulk of the literature in this area focuses on differences in the amount of work completed by male versus female physicians. Differences in practice style, patient mix, service mix, and broad workforce trends are featured much less prominently. The majority of articles examine primary care, which is not surprising given that primary care has the largest proportion of women among specialties.

**Activity and Workload**

Compared to their male counterparts, female physicians:

- are more likely to have engaged in part-time work, or intend to do so at some point during their career. The majority of female physicians currently working part-time are under age 45 (corresponding with years of childbearing), while, the majority of male physicians who work part-time are over age 54 (likely corresponding to a decline in service provision as retirement approaches). The few longitudinal studies note that the gap in hours worked between male and female physicians seems to be narrowing both over time and as the physician cohort ages.

- work, on average, five to twelve fewer hours per week.

- work similar hours when they have no dependents.

- see fewer patients. This gap is largest in primary care where they complete approximately 45 fewer visits per week and smallest in some specialties where it drops to between 8 and 23 visits per week. Women in anaesthesiology, dermatology, general practice, psychiatry, internal medicine, paediatrics, neurology, obstetrics, ophthalmology, general surgery and radiology see fewer patients or deliver fewer services on average than their male counterparts.

However, female physicians still work more, on average, than the rest of the country’s employed population. Issues of work-life balance, caregiving and child-rearing responsibilities warrant significant attention. Physicians, regardless of sex, should work in an environment that supports balance, without compromising the quality of, and access to, care.
Practice Patterns
Male and female physicians practice medicine differently. Females are less likely than males to:
♦ choose to work in rural practice; and
♦ provide house calls or out-of-office care;
and are more likely to:
♦ work in partnership or group-based practice rather than solo.

In general practice, when compared to males, female physicians:
♦ tend to see a higher proportion of female patients and a lower proportion of elderly ones;
♦ are more likely to see patients with complex psychosocial problems;
♦ are equally likely to see patients with complex medical problems;
♦ see more gynaecologic problems, pregnancies, family planning, and endocrine/metabolic problems; and
♦ see fewer musculoskeletal, respiratory and male genital system problems.

Speciality Choice
Female physicians remain much less likely to select surgical specialities and much more likely to select primary care, pediatrics, and obstetrics compared to their male counterparts. Thus, because the proportion of female physicians is rising, specialities with very low rates of female participation may experience shortages.

Research Gaps and Priorities
Studies are needed to examine:
♦ whether differences in activity levels between male and female physicians could result in shortages or surpluses in specific specialities;
♦ reasons for speciality selection;
♦ physician and practice variation; and
♦ differences in patient and service mix.

Much of the literature relies on one-time, cross-sectional surveys, collecting self-report data on work practices and patterns. This type of research has some substantial methodological limitations, including low response rates, selection bias, recall bias, a high degree of random error, and an inability to measure trends over time.

Implications for Human Resources Planning
More robust measures that account for sex differences in volume, but also on the implications of the differences in patient mix, service mix, and practice style between male and female physicians need to be developed and used. Other demographic and work-force factors (e.g., the impact of physician age and cohort) should also be considered.

Health human resources modeling must always also focus on the health needs of the population. Accurate measures of physician and service supply that account for the impact of feminization and other demographic shifts are not sufficient in-and-of themselves.
Health Human Resources Planning

Health human resources (HHR) planning involves matching the supply of HHR with health care service requirements. This process requires a combination of short-term planning to address urgent needs, and long-term planning to develop a workforce and overall health system flexible enough to respond to future requirements, which are often difficult to anticipate. Several approaches to HHR planning exist internationally. In publicly funded systems such as in Canada, where health services are provided based on need as opposed to ability to pay, a needs-based approach to HHR is essential. A synthesis of the existing knowledge on needs-based HHR and health systems planning was conducted based on a systematic review of the peer-reviewed and grey literature published between 1990 and 2013. The researchers identified 35 relevant articles, the bulk of which focused on Canada. In total, 12 health professional groups were considered: roughly half of the articles took a system-level perspective that was not specific to any particular health care professional group, while, within the remaining papers, nurses were the most common focus, followed by physicians.

Future Projections
HHR planning approaches described in the literature either estimated current requirements alone, or estimated both current and future needs. Projected future requirements were forecasted from 10 and 40 years. While estimates of such requirements decrease in accuracy over time, they are valuable to illustrate potential consequences of various policy scenarios, such as increasing enrolment in health care provider education programs, or improving HHR productivity.

Defining and Measuring Need
Data on planning and measures of health care needs were essential to the various HHR approaches, and rates of incidence or prevalence of specific health conditions, including chronic and infectious diseases, mental health conditions, and injuries were most commonly used. Self-assessed measures of overall health and of long-standing activity-limiting health conditions were also used. Although governments and other organizations have invested in the collection of health status information using standardized, relatively objective assessment tools, only one of the papers applied such a measure to HHR or health systems planning. Some studies used more objective indicators, such as standardized mortality ratios and fertility rates. Relatively few approaches incorporated measures of social determinants of health – such as socioeconomic status or tobacco use – in addition to measures of actual health status.

HHR Data Availability
Challenges existed in obtaining the required data on HHR supply, but obtaining data on the number and type of health care services to be provided to individuals according to different levels of need (levels of service) was more challenging still. Levels of service were estimated either by using current levels (e.g., from administrative data and population health surveys) as ‘baseline’ for analysis and comparison of different scenarios, or some established guideline or other service model was used as a target or ‘standard’ (e.g., from peer-reviewed literature and/or established clinical practice guidelines).
Supports Required
Planners and policy makers must recognize the interdependency of health systems and HHR; planning for each must be done in concert. In addition, firm commitment from health care planners and policy makers is required to reform practices that are not aligned with meeting population health needs. Moreover, effective health systems and HHR planning is a political as well as a technical exercise, requiring collaboration between planners and policy makers as well as the collectors, stewards, and analysts of planning data and health care providers themselves. Partnership between these groups is required to build consensus and support for the approach to planning and, by extension, the potential policy changes which may arise from it.

Conclusions
A range of planning methods, frameworks and tools are available to HHR planners and policy makers seeking to make their health care systems more responsive to population health needs. Although there is growing endorsement of the principles of needs-based HHR planning, practical implementation of such methods is only emerging in a few countries. Besides the growth in the number and range of these tools, factors supporting their implementation include improved access and quality of HHR data that reflect a broad understanding of health, the integration of needs-based HHR planning into broader health and systems planning, and improved partnerships between researchers and research users. Potential directions for future research and collaboration include:

- The enhancement of measurement and collection of data on health care needs, including consideration of the potential use of prospective data to inform HHR planning;
- Continuing the evaluation of new and existing models of care delivery and the impact of those models on patient, provider and system outcomes; and
- Evaluation of the performance of needs-based health systems and HHR planning policies.
The Pan-Canadian Health Human Resources Network is inviting all Doctoral Students and Post-Doctoral Students doing a dissertation or post-doctoral fellowship on topics related to Health Human Resources to join our network and expose your research on our website.

About the call:

The Pan-Canadian Health Human Resources Network is inviting all Doctoral Students and Post-Doctoral Students doing a dissertation or post-doctoral fellowship on topics related to Health Human Resources to join our network and expose your research on our website.

Eligible HHR Topics

- **HHR Planning**
  - Supply/Needs-based modeling
- **HHR Mix/Distribution**
  - Skill-mix
  - Task shifting
  - Models of Care Innovation
- **Mobility/Migration**
  - Internationally Educated Health Professionals,
  - International Medical Graduates
- **Rural/Remote and/or Aboriginal HHR**

How to join:

Send us your CV, the title of your thesis and short (250 word) abstract to info@hhr-rhs.ca

Membership is FREE!!!

Benefits of Membership

- Create a profile of your HHR interests and expertise on our online HHR expert directory
- Ability to share HHR ideas and theses/research topics with CHHRN experts, researchers and decision-makers
- Exposure of your research to a range of decision-makers/knowledge users!!

For more information: www.hhr-rhs.ca

Myuri Manogaran is a PhD Student in the Institute of Population Health at the University of Ottawa. She is supervised by Dr. Ivy L. Bourgeault. Her current research focuses on the role of interprofessional collaboration in the discharge-planning process on the neonatal intensive care unit. Her study will identify and examine discharge planning for the following settings: a) from the NICU to another unit within the same pediatric hospital; b) from the NICU to another hospital; and c) from the NICU to home. The study will also examine the role of IPC, the patient's family, and community health resources to identify barriers or facilitators for IPC in the discharge planning process across settings.

For more information visit CHHRN website at www.hhr-rhs.ca or Contact Myuri at myurimanogaran@gmail.com
The Pan-Canadian Health Human Resources Network is inviting all HHR Researchers to join our network and expose your research on our website.

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The Nova Scotia Health Research Foundation (NHSRF) Pan-Canadian Health Human Resource (HHR) Planning Toolkit website is now live! We received funding from Health Canada to develop the Toolkit. The Toolkit is based on experience and best practices from across Canada and supports HHR planners and decision-makers.

Visit the website to learn more and interact with fellow HHR practitioners at www.hhrtoolkit.ca
CHHRN Expert Directory

The CHHRN Expert Directory (CHHRN-ED) is a searchable online database of key researchers, experts and decision-makers in health human resource issues in Canada (available via www.hhr-rhs.ca). The purpose of the directory is to better link health human resource researchers to a range of stakeholders to help build research capacity, inform health policy and share innovative ideas and research on important health human resource issues.

Key Features

In addition to basic information about our key researchers, experts and decision makers in health human resources in Canada, our searchable online directory provides member-specific features that allows our expert researchers the flexibility to create their own profiles and choose how their information be presented. Members can choose how their information will be shared by choosing one of the following databases:

Partners (Public) Database: A database for members who want their information shared publicly on the CHHRN website (i.e. anyone visiting the website can view this information) and view/access information from other members of the Partners (public) database.

Members (Private) Database: A database for members who want to share their information with CHHRN members only.

Interested in becoming a member? Send us an email with your CV at: info@hhr-rhs.ca

CHHRN Data Directory

Researchers as well as decision and policy makers in the field of Canadian healthcare resources face a common challenge in Canada today: the lack of access to information sources and databases necessary for their work. CHHRN is in the process of establishing an online, searchable directory of all known and available Canadian health human resource databases and information sources. The objective of this directory is to facilitate, expand and strengthen healthcare human resource research, decision and policy making by maximizing the range and quality of information sources available. The index will contain details about the database owner, content, access steps and requirements. To date over 400 potential health human resource databases representing all provinces and territories make up the pool of potential data and information sources. These are now being reviewed for completeness and accuracy as well as "usability." Work is underway to establish an on-line platform for the directory. CKAN open source data portal software is being used to create that platform. This is a mature software that has been widely used by different government and healthcare bodies to allow for their data bases to be a searchable resource. It's open source status will allow for a fully functional platform at minimum cost. The CHHRN data directory will soon be available on the CHHRN website.

For more information contact info@hhr-rhs.ca

University of Ottawa
1 Stewart Street, Room 229
Ottawa, On
info@hhr-hrs.ca
www.hhr-rhs.ca