Mapping Health Services and Policy Research Settings in Canada: Following the Money, the Publications and the Interest

Cartographie de la recherche sur les services et les politiques de santé au Canada : sur les traces de l'argent, des publications et des intérêts



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Abstract

While health services and policy research (HSPR) has an established footing in traditional research settings (e.g., universities, hospitals, research institutes) in Canada, its presence in other research settings (e.g., government agencies, regional health authorities, charitable organizations) is emergent and less well understood. Drawing on data from the Canadian Institutes of Health Research, the Canadian Health Services Research Foundation, two Canadian HSPR-focused journals (Healthcare Policy and Healthcare Management Forum) and the Canadian Association of Health Services and Policy Research, we mapped HSPR settings based on three different measures: (1) HSPR-related funding, (2) authorship in Canadian HSPR-focused journals and (3) membership in a professional HSPR association. Our findings suggest that while a significant proportion of HSPR is directly linked to non-traditional research settings, the nature and extent of HSPR activity in those settings are unclear.

Résumé

Bien que la recherche sur les services et les politiques de santé (RSPS) au Canada soit bien établie dans les établissements traditionnels de recherche (c'est-à-dire les universités, les hôpitaux et les instituts de recherche), sa présence dans d'autres types d'établissements de recherche (c'est-à-dire les organismes gouvernementaux, les régies régionales de la santé et les organismes de bienfaisance) est émergente et beaucoup moins bien comprise. À partir de données provenant des Instituts de recherche en santé du Canada, de la Fondation canadienne de la recherche sur les services de santé, de deux revues canadiennes sur la RSPS (Politiques de Santé et Forum Gestion des soins de santé) et de l'Association canadienne pour la recherche sur les services et les politiques de la santé, nous avons cartographié les établissements de RSPS en fonction de trois mesures : (1) le financement lié à la RSPS, (2) les publications des auteurs dans les revues canadiennes de RSPS et (3) l'adhésion à une association professionnelle de RSPS. Nos résultats suggèrent que bien qu'une proportion significative de la RSPS soit directement liée à des établissements de recherche non traditionnels, la nature et l'amplitude de l'activité de RSPS dans ces établissements demeurent imprécises.

In 1997, Jonathan Lomas warned that "efforts by researchers and by decision-makers seem to proceed largely independently. Each have their own (often misplaced) ideas about the other's environment. Opportunities for ongoing exchange and communication are few" (Lomas 1997: 1). Lomas' guidance included a call for "new organizational structures, new activities and processes, and new human resources to facilitate more ongoing communication [between researchers and decision-makers]" (Lomas 1997: 4). In the years that have followed, much of the Canadian landscape for health services and policy research (HSPR) has changed, including more opportunities for researchers and decision-makers to work together. However, despite these changes, we have surprisingly limited information regarding who is contributing to HSPR and where it is being conducted.

The Canadian Institutes of Health Research acknowledged the lack of a comprehensive "map" of HSPR in Canada as a key challenge when it established its Institute for Health Services and Policy Research (IHSPR), noting the need to develop a "database of researchers with skills and interests in HSPR" (CIHR 2001). With diverse and complex health services and policy contexts, a better understanding of the HSPR landscape in Canada will allow key stakeholders to identify more optimal approaches developing and using HSPR. To address this knowledge gap, we set out to map where HSPR is conducted and the nature and extent of contributions made in different settings.

Mapping HSPR Settings

While HSPR is established in traditional research settings (e.g., universities, hospitals, research institutes), its presence in other research settings (e.g., government agencies, regional health authorities, charitable organizations, private think tanks) is emergent and less well understood (Mitton and Bate 2007; Chafe and Dobrow 2008). The multidisciplinary and multi-professional nature of HSPR presents a number of measurement challenges, with many contributors outside of traditional research settings holding other, often primary, non-research responsibilities. A recent report on the health services research workforce in the United States suggested that the "transience of many of the practitioners of HSR [health services research] into and out of the field makes it difficult to identify who will one day be involved in HSR and which specific professions and professionals are most involved" (Ricketts 2007). Definitions of HSPR are similarly elusive, often characterized as the study of some or all aspects of how healthcare services are organized, regulated, managed, financed, utilized and delivered (CIHR 2006; CHSPR 2009; Ontario Training Centre 2009). Unsurprisingly, there is no single data source that accurately and reliably captures all HSPR activity in Canada.

Therefore, we identified three proxy measures derived from five accessible data sources to map HSPR settings. First, in terms of HSPR funding, we analyzed the organizational affiliations of individuals who received HSPR-related grants and awards

from two leading HSPR funding agencies in Canada: the Canadian Institutes of Health Research (CIHR) and the Canadian Health Services Research Foundation (CHSRF). Second, we documented and analyzed the affiliations of authors contributing to papers published in two Canadian HSPR-focused peer-reviewed journals, *Healthcare Policy* and *Healthcare Management Forum*. Finally, we examined the affiliations of members of the Canadian Association of Health Services and Policy Research (CAHSPR).

To facilitate the analysis, we have classified research settings into four categories: (1) universities, (2) hospitals and research institutes, (3) government agencies and regional health authorities and (4) other organizations. The first two categories represent traditional research settings, while the last two categories represent non-traditional research settings. Hospitals (including both teaching and community) and research institutes were combined because in many cases, research institutes are based within hospitals and it is often difficult to link HSPR activity exclusively to one setting or the other. In contrast, while the main offices of regional health authorities are often colocated with hospitals, the two settings were more clearly distinguished and therefore could be categorized separately.

Following the money: HSPR-related funding

The CIHR's Funded Research Database (http://webapps.cihr-irsc.gc.ca/funding) provides publicly accessible information on grants and awards funded by that agency. The database identifies applicants and their affiliated organizations, funding program type (e.g., operating grant, personnel/training award, etc.), research project title, peer review committee, funding period, amount funded, institution paid, research theme (i.e., biomedical; clinical, health systems/services; social/cultural/environmental/ population health) and the relevant CIHR institute (e.g., the IHSPR). To use this database to identify HSPR settings in Canada, we made two key assumptions. First, we assumed that each principal and co-applicant's affiliated organization represented a research setting where HSPR was conducted. While this assumption might overestimate the reach of HSPR, it ensures that multi-site studies and the role of decision-making partners that participate in CIHR's main partnership grants - e.g., Partnerships for Health System Improvement (PHSI) and Knowledge to Action (K2A) – are represented. Second, given that CIHR applicants are requested to categorize grant/award applications into one of the four research themes identified above, we assumed that health systems/services was the only theme that consistently represented HSPR. However, as some clinical and social/cultural/environmental/population health-themed grants also represent HSPR, we cross-referenced our search to identify any grant/award designating the IHSPR as the primary CIHR institute. This approach allowed us to include CIHR grants/awards not thematically identified as health systems/services research.

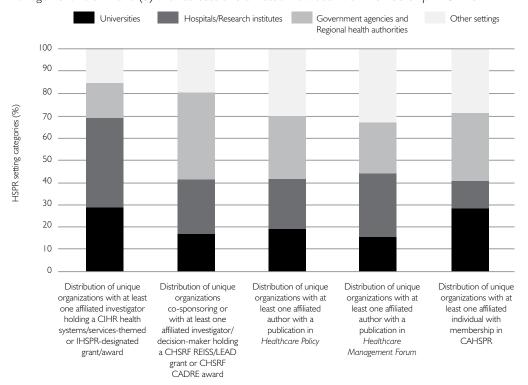
Based on these assumptions, we searched the CIHR Funded Research Database for health systems/services-themed or IHSPR-designated grants/awards funded over the period 2006/07 to 2008/09. We identified 1,134 health systems/services-themed or IHSPR-designated grants/awards funded by CIHR to organizations distributed across every province in Canada. In terms of exposure (i.e., organizations with an affiliated applicant holding at least one grant/award), hospitals and research institutes represented 42% of HSPR settings, universities represented 28%, government agencies/regional health authorities represented 15% and other organizations (e.g., charitable agencies) represented 16% (Figure 1). When focusing on intensity (i.e., total number of affiliated applicants holding grants/awards per organization), traditional research settings accounted for the vast majority of these grants/awards (70% held by universities and 25% held by hospitals/research institutes), with government agencies, regional health authorities and other organizations accounting for less than 6% (Figure 2).

We also examined the CIHR data by institution paid. The five institutions that received the largest number of health systems/services-themed or IHSPR-designated grants/awards - 34% of those funded by CIHR during the period analyzed - were all universities: University of Toronto (104), University of British Columbia (90), University of Alberta (67), McMaster University (66) and McGill University (58) (Table 1). A more focused examination of these five universities' grants/awards revealed both inter- and intra-university variation regarding the types of departments where the funds were held. For four of the five universities, the majority of these grants/awards were held within departments with focused interest in healthcare policy, management and/or clinical epidemiology/biostatistics. Many other departments holding these grants/awards primarily represent typical health-related fields (e.g., public health, medicine, nursing, pharmacy, etc.). However, each university's distribution of grants/awards across these departments varied. There were also examples of health systems/services-themed or IHSPR-designated grants/awards held in less typical departments (e.g., architecture, English, history), while a number of the grants/awards did not specify a university department.

Based on the institution paid, traditional research settings (i.e., universities, hospitals and research institutes) accounted for all CIHR health systems/services-themed or IHSPR-designated grants/awards in three of the 10 provinces (Table 2). The relatively small number of government agencies (e.g., public health agencies and provincial cancer agencies/boards) or regional health authorities that held these grants/awards were dispersed across six provinces. The remaining organizations holding CIHR health systems/services or IHSPR-designated grants/awards were also dispersed across six provinces. These organizations were mainly not-for-profit organizations that serve specific communities, such as HIV/AIDS networks or community organizations serving Aboriginal populations.

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FIGURE 1. Exposure by HSPR setting: Distribution of unique organizations (I) with at least one affiliated investigator holding a CIHR health systems/services-themed or IHSPR-designated grant/ awarda, (2) co-sponsoring or with at least one affiliated investigator/decision-maker holding a CHSRF REISS/LEAD grant or CHSRF CADRE award^b, (3) with at least one affiliated author with a publication in Healthcare Policy^c, (4) with at least one affiliated author with a publication in Healthcare Management Forum^d and (5) with at least one affiliated individual with membership in CAHSPR^e.



^a Canadian Institutes of Health Research (CIHR) Funded Research Database results for 2006–2009 (searched May 16, 2010)

Publicly available data on CHSRF funding of HSPR portrays a different picture. While CHSRF funds significantly less research than CIHR (Hutchison 2007), its focus is more clearly on HSPR (CHSRF 2009). CHSRF's main operating grant programs over the period 2006 to 2009 were the Research Exchange and Impact for System Support (REISS) and the Linking Evidence to Action on Decisions (LEAD) programs. Both programs required applicants to develop researcher/decision-maker partnerships, with a lead researcher and decision-maker applicant along with co-sponsoring organizations identified for each grant. CHSRF's main personnel awards program over the same period was the Capacity for Applied and Developmental Research and Evaluation (CADRE) program, which included postdoctoral fellowships (requiring both an academic and decision-maker mentor/organization) and chair awards for

^b Canadian Health Services Research Foundation (CHSRF) (REISS, LEAD and CADRE) competition results for period 2006–2009 (searched June

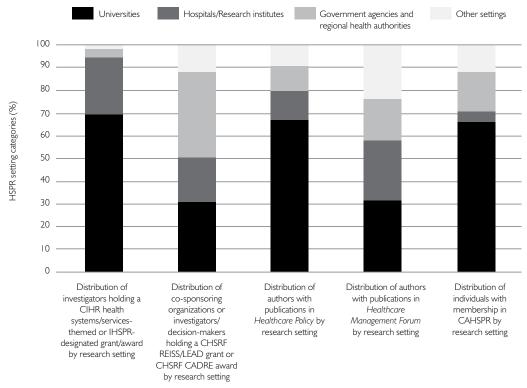
^c Healthcare Policy hand searched for issues published from 2006 to 2009 (searched July 6, 2010)

^d Healthcare Management Forum hand searched for issues published from 2006 to 2009 (searched July 2, 2010)

^e Canadian Association of Health Services and Policy Research (CAHSPR) Membership Directory (searched June 9, 2008)

senior investigators. Drawing on funding competition results posted on CHSRF's website, we examined the affiliations of awardees and documented the identified cosponsoring organizations for both the REISS/LEAD (http://www.chsrf.ca/funding_opportunities/index_e.php) and CADRE (http://www.chsrf.ca/cadre/index_e.php) programs over the period 2006 to 2009.

FIGURE 2. Intensity by HSPR setting: Distribution of (1) investigators holding a CIHR health systems/ services-themed or IHSPR-designated grant/award^a, (2) co-sponsoring organizations or investigators/ decision-makers holding a CHSRF REISS/LEAD grant or CHSRF CADRE award^b, (3) authors with publications in *Healthcare Policy^c*, (4) authors with publications in *Healthcare Management Forum*^d and (5) individuals with membership in CAHSPR^e.



^a Canadian Institutes of Health Research (CIHR) Funded Research Database results for 2006–2009 (searched May 16, 2010)

There were 54 CHSRF grants/awards over this period, with 88 unique organizations represented (i.e., exposure). Forty per cent were government agencies or regional health authorities, 25% were hospitals or research institutes, 16% were universities and 19% were other organizations (Figure 1). When we examined these data by the total

^b Canadian Health Services Research Foundation (CHSRF) (REISS, LEAD and CADRE) competition results for period 2006–2009 (searched June 18, 2010)

^c Healthcare Policy hand searched for issues published from 2006 to 2009 (searched July 6, 2010)

^d Healthcare Management Forum hand searched for issues published from 2006 to 2009 (searched July 2, 2010)

^e Canadian Association of Health Services and Policy Research (CAHSPR) Membership Directory (searched June 9, 2008)

number of awardees and/or co-sponsoring organizations holding a CHSRF grant/ award (i.e., intensity), the distribution shifted towards traditional research settings (from 41% to 51%) (Figure 2).

TABLE 1. CIHR health systems/services-themed or IHSPR-designated grants/awards for top 5 paid institutions (by department): 2006–2009

	Top 5 paid institutions (by department) (number of grants/awards in parentheses) [department's percentage of university's grants/awards square brackets]						
Department category	University of Toronto (104) [100%]	University of British Columbia (90) [100%]	University of Alberta (67) [100%]	McMaster University (66) [100%]	McGill University (58) [100%]		
Healthcare policy, management and/or clinical epidemiology/ biostatistics	Health Policy, Management and Evaluation (31) [30%]	 Healthcare and Epidemiology (21) Centre for Health Services and Policy Research (6) Clinical Epidemiology (1) Healthcare Research (1) [32%] 	[0%]	Clinical Epidemiology and Biostatistics (26) [39%]	Epidemiology and Biostatistics (9) Clinical Epidemiology (1) Epidemiology (1) Epidemiology and Community Medicine (1) [21%]		
Medicine	Institute of Medical Sciences (7) Medicine (4) Surgery (3) Medicine/ Cardiology (2) Community Dentistry (1) Community Medicine (1) Internal Medicine (1) Laboratory Medicine & Pathology (1) Medicine/ Endocrinology/ Metabolism (1) Medicine/ Epidemiology and Biostatistics (1) Psychiatry (1) [23%]	Family Practice (3) Continuing Medical Education (2) Medicine (2) Anaesthesia (1) Internal Medicine (1) Medicine/ Nephrology (1) Oral Health Sciences (1) Paediatrics (1) Pathology (1) Surgery (1) Surgery (1)	Medicine (10) Paediatrics (9) Emergency Medicine (2) Clinical Neurosciences (1) Internal Medicine (1) Medicine/ Nephrology (1) Oncology (1)	Paychiatry (4) Paediatrics (2) Pathology and Microbiology (2) Gerontology (1)	Medicine (6) Family Medicine (5) Oncology (4) Psychiatry (2) Medicine/ Epidemiology and Biostatistics (1) Neurology and Neurosurgery (1)		
Nursing	Nursing (3) Nursing Research (2) Nursing Administration (1)	• School of Nursing (5) • Nursing (3)	Nursing (4)	School of Nursing (5) Nursing (4)	School of Nursing (I)		
	[6%]	[9%]	[6%]	[14%]	[2%]		

TABLE 1. Continued

	Top 5 paid institutions (by department) (number of grants/awards in parentheses) [department's percentage of university's grants/awards in square brackets]							
Department category	University of Toronto (104) [100%]	University of British Columbia (90) [100%]	University of Alberta (67) [100%]	McMaster University (66) [100%]	McGill University (58) [100%]			
Pharmacy/ allied health	Physical Therapy (3) Pharmacy (2) Pharmaceutical Sciences (1) Rehabilitation Sciences (1) [7%]	Pharmacology and Therapeutics (4) Human Nutrition (1) Pharmaceutical Sciences (1) Pharmacy Practice (1) Physical Therapy (1) Rehabilitation Sciences (1) [10%]	Rehabilitation Sciences (I) [1%]	Rehabilitation Sciences (5) [8%]	Occupational and Physical Therapy (2) [3%]			
Public health	Public Health Sciences (5) [5%]	Health Studies (2) Health Promotion Research (1) School of Public Health (1) [4%]	Public Health Sciences (3) Centre for Health Promotion (1) [6%]	Health Sciences (1) Health Studies (1) [3%]	Dental Public Health Sciences (3) [5%]			
Other	Bioethics (1) Centre for Bioethics (1) Counselling Psychology (1) Exercise Science (1) Industrial Engineering (1) Institute of Biomedical Engineering (1) Law (1) Political Science (1) Sociology (1) [10%]	Applied Sciences (4) Applied Ethics (2) Interdisciplinary Studies (1) Liu Institute for Global Issues (1) School of Occupational and Environmental Hygiene (1) [10%]	Educational Psychology (3) Human Ecology (1) [6%]	Geology (4) Economics (3) English (1) Graduate Studies (1) [14%]	Biochemistry (5) Biomedical Ethics (4) Anatomy and Cellular Biology (1) Architecture (1) Law (1) Meakins-Christie Laboratories (1) Psychology (1) Social Studies & Medicine(1) [26%]			
Unspecified	Not specified/ applicable (21) [20%]	Not specified/ applicable (16) [18%]	• Not specified/ applicable (29) [43%]	• Not specified/ applicable (6) [9%]	Not specified/ applicable (6) [10%]			

¹ CIHR Funded Research Database results for 2006–2009 (searched May 16, 2010)

There are clear differences between the two HSPR funding data sources. For both the exposure and intensity measures, a considerably higher proportion of CIHR's grants/awards went to applicants based in traditional research settings, compared to CHSRF. As all CHSRF operating grant programs require partnerships between researchers and decision-makers, we conducted sub-analyses of comparable CIHR

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TABLE 2. CIHR health systems/services-themed or IHSPR-designated grants/awards (by province and institution paid): 2006–20091

Province	Number of grants/awards (%)					
	University	Hospital and/ or research institute	Government agency and/ or regional health authority	Other organization	grants/ awards funded	
Ontario	289 (56%)	215 (42%)	3 (1%)	7 (1%)	514 (100%)	
Quebec	157 (65%)	81 (33%)	2 (1%)	2 (1%)	242 (100%)	
British Columbia	117 (79%)	25 (17%)	2 (1%)	4 (3%)	148 (100%)	
Alberta	119 (93%)	3 (2%)	4 (3%)	2 (2%)	128 (100%)	
Nova Scotia	30 (88%)	3 (9%)	0 (0%)	I (3%)	34 (100%)	
Manitoba	27 (90%)	0 (0%)	I (3%)	2 (7%)	30 (100%)	
Saskatchewan	16 (84%)	0 (0%)	3 (16%)	0 (0%)	19 (100%)	
Newfoundland and Labrador	10 (100%)	0 (0%)	0 (0%)	0 (0%)	10 (100%)	
New Brunswick	7 (88%)	I (I3%)	0 (0%)	0 (0%)	8 (100%)	
Prince Edward Island	1 (100%)	0 (0%)	0 (0%)	0 (0%)	I (I00%)	
Total grants/awards funded (% of total grants/ awards funded)	773 (68%)	328 (29%)	15 (1%)	18 (2%)	1,134 (100%)	

CIHR Funded Research Database results for 2006-2009 (searched May 16, 2010)

partnership programs (e.g., PHSI and K2A) and found that these programs had similar distributions across research settings as other CIHR grants/awards, thus not explaining the differences between CIHR and CHSRF. We also compared CIHR and CHSRF's distributions of research settings for operating grants and personnel awards separately. For CIHR, the distribution of operating grants and personnel awards across research settings was consistent for both the exposure and intensity measures. However, for CHSRF, the distribution of operating grants and personnel awards across research settings differed. For both the exposure and intensity measures, a larger proportion of CHSRF operating grants was distributed to regional health authorities, other government agencies, hospitals and research institutes, while a smaller proportion of operating grants was distributed to universities, compared to the agency's personnel awards. These sub-analyses suggest that CHSRF's operating grant programs did result in both greater exposure and greater intensity of operating grants in non-traditional research settings compared to CHSRF's personnel award programs or any of CIHR's grant/award programs.

Following the publications: Authorship in HSPR-focused journals

To supplement the examination of the funding data sources, we extended our focus to a key source of HSPR output – publications in two Canadian peer-reviewed journals that primarily publish HSPR: Healthcare Policy and Healthcare Management Forum. While focusing on publications in just two journals clearly underestimates HSPR output in Canada, these journals both target academic and decision-making audiences and represent important dissemination vehicles for HSPR in Canada. There are inconsistencies in the number and type of institutional affiliations that authors identify or that these journals ultimately publish; however, we believe these data provide another reasonable proxy for mapping HSPR settings in Canada.

As we did with our analysis of research funding, we analyzed authorship in both journals in terms of organizational exposure and the intensity of organizational activity. To do this, we documented institutional affiliations of all authors contributing to papers in all issues of these two journals published from 2006 to 2009, excluding those authors for whom a Canadian affiliation was not provided. The data were obtained through hand searches of all *Healthcare Policy* and *Healthcare Management Forum* issues published over this time period.

For *Healthcare Policy*, we identified 116 organizations with at least one affiliated author having a publication in the issues examined (i.e., exposure measure). Traditional and non-traditional research settings were fairly evenly represented, with 41% of these organizations representing traditional research settings (18% with universities, 23% with hospitals/research institutes) and 58% representing non-traditional organizations (28% with government agencies or regional health authorities, 30% with other organizations) (Figure 2). However, when we consider the total number of author affiliations per organization (i.e., intensity measure), the picture shifts dramatically, with 80% of author affiliations linked to traditional research settings (67% in universities, 13% in hospitals/research institutes) and only 20% representing non-traditional research settings (11% with government agencies or regional health authorities, 9% with other organizations) (Figure 2). Thus, while a wide range of research settings contribute to publications in this journal, the clear majority of papers are authored by individuals based in traditional research settings.

For Healthcare Management Forum, we identified 107 organizations with at least one affiliated author having a publication in the journal over the period studied (i.e., exposure measure). Similar to the Healthcare Policy data, 57% of these organizations represent non-traditional research settings (24% with government agencies or regional health authorities, 33% with other organizations), while 43% represent traditional research settings (14% with universities, 29% with hospitals/research institutes) (Figure 2). However, in contrast to the Healthcare Policy data, when we consider the total number of author affiliations per organization (i.e., intensity measure), the picture reverses, with traditional research settings representing 57% and non-traditional

research settings representing 43% (Figure 2).

While data from both journals suggest that authors contributing to papers are affiliated with a wide range of research settings, the journals differ in terms of the depth of the contributions from specific types of research settings. Authors affiliated with traditional research settings contribute a much larger proportion of papers published in *Healthcare Policy* than in *Healthcare Management Forum*, a finding that likely reflects differences in each journal's mandate and target audiences.

Following the interest: Membership in a professional HSPR association

Explicit expression of interest in HSPR represents another proxy measure for mapping HSPR settings. The Canadian Association for Health Services and Policy Research is a national association of researchers and decision-makers that have expressed an interest in HSPR (CAHSPR 2007). Since 2004, CAHSPR has been hosting annual conferences that showcase contemporary Canadian and international HSPR and provide a key forum for researchers (including students) and decision-makers to network and discuss HSPR. The CAHSPR membership directory, accessible to members, provides basic information on each member's self-identified position and affiliated organization. Although 10% of members did not specify an organizational affiliation and membership may be influenced by proximity to the conference location (all attendees are provided a one-year membership in CAHSPR as part of their conference registration fees), the membership directory still provides insights on research settings that represent interest in HSPR.

Excluding members who did not provide an affiliation to a Canadian organization, there were 432 members registered on the CAHSPR directory as of July 2008. There were 134 organizations with at least one affiliated individual with membership in CAHSPR (i.e., exposure measure), distributed fairly evenly across the four research setting categories, with 31% of members based in government agencies or regional health authorities, 27% based in universities, 13% based in hospitals or research institutes and 29% based in other organizations (Figure 1). However, when we consider the total number of CAHSPR members across the four research setting categories (i.e., intensity measure), traditional research settings accounted for the majority (71%) of members (Figure 2).

Diverse Maps of HSPR Settings in Canada: Factors and Implications

The three measures (funding, publications and interest) derived from five separate data sources (CIHR, CHSRF, Healthcare Policy, Healthcare Management Forum and

CAHSPR) represent a subset of HSPR in Canada and inevitably miss important contributions. For example, some Canadian contributors to HSPR may not seek CIHR or CHSRF funding to support their research, or look to publish HSPR in either *Healthcare Policy* or *Healthcare Management Forum*, or view CAHSPR as a relevant professional association or network for their work. Similarly, the extent to which these measures should be aligned is unclear. For example, HSPR funding and HSPR publications data sources represent a bias towards HSPR settings of successful grant/award applicants and authors, thereby underestimating active (but potentially less successful, at least by these measures) HSPR contributors across Canada.

While we lack both a precise definition of HSPR and clear measures of HSPR settings, we believe the data sources analyzed permit an initial map of HSPR settings in Canada to be produced. However, in addition to efforts to improve definitions of HSPR, including core competencies for training the next cadre of researchers in the field, the data sources analyzed would provide more useful insights on HSPR if some of the following recommendations were addressed.

For example, while CIHR (through its PHSI and K2A programs) and CHSRF actively promote partnerships between researchers and decision-makers, it would be useful if more detailed information on the nature of these partnerships was provided. Currently, CHSRF identifies "co-sponsoring organizations" but does not link them to any specific individuals, making interpretation of the contributions of these organizations challenging. Greater transparency regarding how decision-making organizations contribute to HSPR may help decision-makers in non-traditional research settings better position their organizations to participate more effectively in, or draw benefits from, HSPR. It would also be helpful if HSPR-focused journals such as Healthcare Policy and Healthcare Management Forum considered more consistent policies regarding the publication of authors' affiliations (including both position and organization). Affiliations to traditional or non-traditional research settings reveal important insights and potential biases that should be made explicit to readers. Similarly, the CAHSPR membership directory would be a more useful source of information on HSPR settings if members were required to identify both a primary position and primary organization affiliation (with options to select "other" and provide multiple affiliations) as part of the process of confirming registration to the annual conference. Data on the number of years of membership status for each member would also help to assess the effects of proximity to the conference location on CAHSPR membership.

While we acknowledge the above limitations, our analyses still revealed important insights for health system planning and policy development. While the data sources produced varying pictures of HSPR settings in Canada, they consistently suggested that HSPR is not limited to traditional research settings.

Considering the 10 distributions of traditional and non-traditional research settings observed – that is, both exposure (was there any HSPR?) and intensity (how

much HSPR?) measures for each data source – only one distribution (CIHR intensity measure) exhibited less than 20% of HSPR in non-traditional settings (Figures 1 and 2). In fact, for the exposure measure, four of the five data sources indicated that non-traditional research settings accounted for more than half of all HSPR settings. However, for each data source, we observed an increase in the distribution of HSPR to traditional research settings when we shifted from exposure (Figure 1) to intensity (Figure 2) measures, with the shifts greatest for the CIHR, Healthcare Policy and CAHSPR data sources. The consistent discrepancy between exposure and intensity measures suggests that while non-traditional research settings are well represented, the majority of HSPR activity still resides in traditional research settings. This finding raises important questions regarding the nature of and expectations for HSPR contributions in non-traditional research settings, an issue that has received only limited attention to date (Ross et al. 2003). Even within traditional research settings, we found HSPR linked to university departments not typically associated with the field. While this finding reflects the multidisciplinary nature of the field, it does not provide insights on the extent to which these less typical university settings for HSPR are involved in truly interdisciplinary research.

Conclusions

Lomas concluded his provocative policy commentary by noting: "Achieving improved dissemination and uptake of health research will depend upon interested applied researchers, committed decision-makers, and both research sponsors and universities willing to consider new ways of doing business" (Lomas 1997: 42). While the Canadian landscape for HSPR has evolved with new research funding organizations, new journals and new professional associations dedicated to HSPR, our findings raise questions regarding the extent to which the Lomas-inspired vision of HSPR has truly emerged. While none of the data sources analyzed gave us a full and comprehensive picture of HSPR settings, considering these different data sources together has produced a more robust understanding of HSPR activity. The data clearly suggest that non-traditional research settings play a role in HSPR in Canada. However, the data provide only limited insight into the nature of their contributions, either to the development of the research or to its uptake. While more opportunity for researchers and decisionmakers to work together is likely a good thing, we need to understand more about how researchers and decision-makers collaborate and contribute to the development and use of HSPR to guide policy and planning. Ultimately, this initial map of HSPR settings emphasizes important gaps in our knowledge, gaps that we hope will lead to further examination of the field and thereby facilitate its continued development.

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