ABSTRACT

This study examined the use of population health and health promotion (PH&HP) research by health regions in Canada. An 11-item survey was faxed to 137 (of 140) health regions. Eighty-three completed questionnaires were returned (60.8%). Results indicate that while research, in general, plays more than a moderate role in the majority of participating health regions, PH&HP research is not used frequently. The most frequent uses of PH&HP research include the development of health goals and objectives, the development of programs and services, and resource allocation. Health regions most frequently obtain PH&HP research from their own staff and from government departments. University-based researchers are not a commonly used source. This study provides a descriptive overview of health regions' engagement in evidence-based decision making related to PH&HP issues, and points to a number of strategies that both health regions and researchers can employ to enhance the use of PH&HP research by health regions.

ARGÉ

Pour examiner l'utilisation des études en santé de la population et en promotion de la santé (SP&PS), nous avons télécopié un sondage portant sur 11 éléments à 137 des 140 régions sanitaires du Canada. Quarante-trois régions ont répondu (60,8 %). Les résultats indiquent que même si la recherche en général joue plus qu'un rôle modéré dans la majorité des régions sanitaires participantes, les études en SP&PS ne sont pas utilisées fréquemment. Elles servent le plus souvent à la définition des priorités et objectifs de santé, à l'élaboration des programmes et services et à l'affectation des ressources. Les régions sanitaires obtiennent en général leurs études en SP&PS de leur propre personnel et des ministères; elles font rarement appel aux chercheurs universitaires. Notre étude donne un aperçu de la mesure dans laquelle les régions sanitaires prennent des décisions fondées sur des preuves en matière de SP&PS et désigne un certain nombre de stratégies que les régions sanitaires autant que les chercheurs peuvent employer pour favoriser l'utilisation des études en SP&PS.

The Use of Population Health and Health Promotion Research by Health Regions in Canada

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Health system restructuring has occurred across Canada during the 1990s. With the exception of Ontario and the Yukon, a key feature of such restructuring has been the creation of health regions. While provinces and territories vary with respect to the name they use to refer to health regions (e.g., regional health authorities, health districts, *régie régionale*), in this paper we use the term health region to collectively refer to such bodies. Health regions are responsible for a variety of policy and program planning decisions regarding the distribution and use of health services and resources. Increasingly, health regions also are attempting to focus on issues related to population health and health promotion (PH&HP).¹

While regional health policy-making processes are influenced by a number of economic, political and social considerations, these processes are also increasingly being driven by a desire for evidence-based decisions.^{2,3} As such, staff and board members of health regions need relevant, high quality data and research findings upon which to base their decisions. The degree

to which health regions use PH&HP research to guide policy and program planning decisions is, however, unknown. Furthermore, if health regions are using PH&HP research, questions remain about the purposes for which the research is being used and the sources from which health regions obtain such research. To fill part of this knowledge gap, the goal of this study was to examine the use of research, particularly PH&HP research, by health regions in Canada.

METHODS

Late in 1998 a four-page survey was faxed to the "CEO, Chair, or Manager" of the 140 health regions across Canada.* A French-language survey was faxed to health regions in French-speaking parts of Quebec and New Brunswick. Over a three-month period the survey was re-faxed to non-responding health regions up to two additional times. Three health regions were excluded from the study after numerous unsuccessful attempts to contact them by telephone and facsimile.

The survey consisted of 11 questions about the use of PH&HP research† by health regions. The questions focussed on the degree to which research is currently used by health regions, the purposes for which PH&HP research is used, health regions' sources of PH&HP research, and factors influencing the use of PH&HP research. Six-point ordinal scales were used

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* In Ontario, surveys were faxed to district health councils.

† We defined population health and health promotion (PH&HP) research as research pertaining to the effects of the broad determinants of health on population health status, and strategies, programs and policies to address behavioural and environmental factors influencing health.

to measure both the frequency with which health regions use research and health regions' sources of research. A combination of open-ended questions and categorical response options were used to collect data about the types of research used by health regions and about the factors influencing the use of research by health regions. A copy of the instrument is available from the authors upon request. Data were analyzed descriptively with frequencies, percentages, and means.

RESULTS

Sample

A total of 83 questionnaires were returned, resulting in an overall response rate of 60.8%. Provincial and territorial response rates ranged from a low of 39% in both Quebec and the Northern Territories to a high of 82% in British Columbia (Table I). While the overall response to the survey was adequate, the low response rates in some provinces and territories suggest that the generalization of the findings to all health regions in Canada should be done with caution. It is not known exactly how non-responding health regions differ from responding regions with respect to their use of PH&HP research. While it is possible that health regions in which research plays a very limited role in policy and program decision making were under-represented in this study, a comparison of provincial mean 'use of research' scores suggests that this hypothesis is unlikely. Even though Quebec and the territories had the lowest response rates, the mean use of research by the responding regions was higher than the mean use of research by responding health regions in some provinces with higher response rates (e.g., British Columbia, Alberta, Saskatchewan) (Table I). Similarly, non-responding and responding health regions did not differ with respect to population within the region or their geographic location.

Although the study initially intended to focus on the use of research by health region board members, only two survey respondents (2.4%) identified themselves as board members. Ten (12%) of the

TABLE I
Provincial/Territorial Response Rates and Mean "Use of Research" Scores

	Total No. of Health Regions	Survey Response Rate	Mean "Use of Research" Score*	Standard Deviation (SD)
British Columbia	11	81.8	3.78	0.97
Alberta	17	70.6	3.17	1.27
Saskatchewan	31	61.3	3.78	1.31
Manitoba	12	75.0	4.11	1.76
Ontario	16	75.0	5.08	0.67
Quebec	18	38.9	4.14	1.35
Maritimes	22	45.4	2.89	1.36
Northern Territories/Yukon	13	38.5	4.00	0.82
TOTAL or AVERAGE	140	60.8	3.97	1.19

* Respondents rated the importance of research in decision making by their RHA using a 6-point scale that was anchored on the end points with "1" representing 'research plays a very limited role' and "6" representing 'research is a key component'.

TABLE II
Uses of Population Health and Health Promotion Research by Health Regions (n=83)

Uses	Number Reporting Use	Percentage of Sample
Set health goals and/or objectives	70	84%
Develop programs and services	64	77%
Allocate resources	62	75%
Support policy decisions	52	63%
Develop community participation strategies	51	61%
Develop models to guide health reform	40	48%

TABLE III
Where Do Health Regions Obtain Their Population Health and Health Promotion Research?

Source	n	Mean*	SD
Staff of their health region	77	4.69	1.14
Government departments	79	4.33	1.21
Academic journals	72	3.83	1.20
Internet	75	3.36	1.33
University-based research centres	75	3.27	1.19
Individual researcher	72	2.78	1.26
Social planning councils	73	2.60	1.27
Media	70	2.54	1.05

* Respondents rated the frequency with which they used the above sources for research information using a 6-point scale anchored on the end-points with 1=never and 6=very often.

respondents did not name their position. The remaining respondents held the following types of positions: management (n=36; 43.4%); program and service planning (n=21; 25.3%); Medical Officer of Health (n=9; 10.8%); and research (n=5; 6%). It is likely that respondents varied in the degree to which they have specific responsibilities for acquiring and processing research findings on behalf of their health regions. Health region respondents averaged approximately three years of experience in their current positions (mean = 38.2 months, range 17-88 months).

Use of research by health regions

Respondents used a 6-point scale to rate the degree to which research plays a role in health region decision making (1=very limited role; 6=key component). More than half (57%) of the respondents indicated that research plays more than a moderate role in their health region's decision-making processes (ratings of 4 or higher). Only 15% of respondents indicated that research plays a limited role (ratings < 3).

Respondents also rated the frequency with which their health regions use four different types of health research (health services utilization, health status, popula-

TABLE IV
Characteristics of Sources of Population Health and Health Promotion Research Frequently Used by Health Regions

Characteristic	Frequency Cited	Percentage of Respondents
Provides direction and/or support for the board	26	34%
Quality of the data and its source	17	22%
Relevant to the geographic area	16	21%
Allows for regional comparisons	13	17%
Efficiency of the source	10	13%
Accessible	10	13%
Easy to understand	6	8%
Familiarity or relationship with the source	5	6%

TABLE V
Strategies that Health Regions Could Implement to Facilitate the Use of Population Health and Health Promotion Research

Strategy	Freq. Cited	% of all Responses	Examples Provided
Organizational Change	17	29%	Formalize evaluation. Require more data when making decisions. Complete strategic planning. Develop a plan for research utilization.
Skill Development	16	28%	Continue to develop skills. Increase familiarity and understanding to guide decision making. Shift board-level focus from acute care to quality PH&HP data.
Resource Allocation	11	19%	Make a budgetary commitment. Realign resource distribution to population groups. Support research at the practice level (funding). Internet access.
Create Linkages	10	19%	Involve the public. Pursue other sources of up-to-date information. Invite speakers to explain results. More sharing and communication of research information. Consolidate and disseminate data more effectively. Develop links with academic centres.
Other	4	7%	Create a demand for it. Need autonomy from government to decide on our own programs.

tion health, health promotion) (1=never; 6=very often). The mean frequencies for health services utilization (4.22) and health status research (4.07) were higher than the mid-point on the 6-point scale, while the mean frequency for population health research (3.57) was on the mid-point and that for health promotion research (3.32) was lower than the mid-point. Purposes for utilizing research, frequently used sources, and characteristics of helpful sources of research are summarized in Tables II, III, and IV, respectively.

Tables V and VI present respondents' suggestions about the actions that regional boards and researchers could employ to facilitate the use of PH&HP research by health regions. Four categories of strategies

that health regions could implement (Table V) and six strategies that researchers could initiate (Table VI) emerged from the 168 suggestions provided by respondents.

DISCUSSION

The creation of health regions in Canada has been accompanied by discussion about the need to engage in evidence-based decision making and to increase the attention being paid to population health and health promotion. This study sheds some light on the degree to which this rhetoric is being acted upon by providing new information about health regions' use of research evidence, particularly PH&HP research, to guide policy and program decisions.

Our results suggest that research, in general, plays more than a moderate role in the decision-making processes engaged in by the majority of health regions represented in this study. The study also suggests, however, that health services utilization and health status research are used more frequently by health regions than are PH&HP research – and that PH&HP research is not being used very often. The limited role of PH&HP research in health region decision making is likely related to the fact that even though PH&HP issues are receiving increasing attention from health regions, the predominant focus of health regions continues to be the administration of health services with a particular emphasis on treatment services.^{1,4}

Study results also suggest that university-based research centres and individual academic researchers are not frequently utilized sources of PH&HP research. This may be related to differences between health regions and academic researchers with respect to their mandates, needs, and interests. Historical characteristics of the academic research community have encouraged researchers to be only partially responsive to decision makers.^{5,6} The systematic, and sometimes cautious, nature of the research process and caveats surrounding its conclusions often lead to uncertainty among policy makers about the appropriate application of the findings.⁷ As Hirdes and Carpenter (1997) noted, the research process “does not mix well with an environment where choices must be made regardless of the inadequacy of evidence.”^{8,p.55} Research is often a lengthy process, while policy and program decisions are more rapid, making it difficult for researchers to meet policy makers' immediate needs.⁹ In addition, while many researchers are interested in theoretical issues, those responsible for policy and program decisions tend to be more focussed on the practical implications of research.¹⁰

Findings from this study suggest that the most frequently used sources of PH&HP research by health regions are those that provide the most direction and support to health region staff and board members about the use of research findings. Previous research has shown that while policy makers may be predisposed to the use of

research in developing policies and programs, in their experience, researchers tend not to provide sufficient guidance about the policy and program implications of research.¹¹ Thus, it may be that health region staff and board members do not acquire PH&HP research from academic researchers because the researchers do not clearly identify the specific implications and applications of their research for policy and program development.

Implications for health regions

Health region staff and board members require basic knowledge and skills to access, interpret, and appropriately use PH&HP research findings. Other recent studies about health region boards have shown that board members are interested in PH&HP research and initiatives, but they believe they lack the requisite knowledge and skills for accessing and using research for decision-making processes.¹²⁻¹⁴ These findings coincide with findings from our study; board members' skill development was one of the most frequent suggestions made by respondents as a strategy that health regions could employ to facilitate the use of PH&HP research.

Research-related knowledge and skills of health region staff and board members alone, however, will not likely be sufficient to ensure the use of PH&HP research by health regions. Respondents' suggestions in Table V, often reflective of the findings in the literature, point to additional strategies that health regions can employ in an attempt to enhance the use of such research by their staff and board members.

Implications for researchers

Establishing ongoing relationships with health region staff and board members through regularly scheduled face-to-face meetings and research workshops provides researchers with opportunities to engage in activities that increase the likelihood that health regions use research findings.¹⁵ Such activities include the identification of health regions' values, interests and information needs,^{16,17} formulation of policy relevant research questions,¹⁸ and design of studies that yield data relevant to health regions' interests.¹⁹ In addition, involving

Strategy	Frequency Cited	% of all Responses	Examples Provided
Improve the communication	33	30%	Provide the Board with executive summaries. Work in partnership with the Boards. Work with the community. Centralize linkages between researchers. Keep communication with the Board consistent.
Tailor the content	29	26%	Perform more practical research. Provide better implications of your research. Relate the impact of your findings to health services utilization. Conduct research in rural areas. Tailor research to community development. Provide more trend information.
Improve the readability	16	15%	More user-friendly. Present findings more clearly. Use Board language. Provide more up-to-date research.
Provide better education	12	11%	Educate the public on PH&HP. Educate health regions on PH&HP research relevant to specific health areas. Inform health regions of available resources. Provide greater guidance on "what works". Educate researchers on health regions' priorities.
Increase the relevance	12	11%	More geographically relevant. More population-health focussed.
Improve the accessibility	8	7%	Publish on the Internet. Make accessing research less costly. Develop more shared interfaces for data.
TOTAL	110*	100%	

* Represents total responses to the open-ended question.

representatives from health regions in research projects from the inception through to the dissemination of findings can also enhance health regions' commitment to research and the likelihood that the findings will be used to guide policy and program decisions.^{17,20,21}

Furthermore, it is important for researchers to ensure that the format by which research results are disseminated coincides with the specific needs and interests of health region staff and board members.^{15,21} Examples of dissemination strategies include workshops; symposia; conferences; fact sheets; newsletter articles; project reports; and executive summaries.^{15,16,21} Finally, mass media plays an important role in shaping public opinion, and is one factor which influences the decisions made by policy makers.²² Mass media strategies, such as press releases, news conferences, letters to the editor, and op-ed articles have all been demonstrated to be effective.^{15,16,18,21}

CONCLUSION

While there are a number of strategies that both health regions and researchers can employ to increase health regions' use of PH&HP research to guide policy and program decisions, these strategies on their own may be insufficient to increase health regions' use of PH&HP research. Health care services, particularly treatment services, make a relatively small contribution to population health and well being.²³⁻²⁷ Thus, it appears reasonable that Canadians' health will be improved most significantly with an expansion of PH&HP programs that address psychosocial, socioeconomic and environmental determinants of health. PH&HP research would unquestionably facilitate development and implementation of such programs. However, health regions' use of PH&HP research will likely remain marginal until health regions expand their predominant focus from acute-care health services to the enhancement of population health.

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(AGCS), ne couvre pas seulement le commerce transfrontalier mais aussi toutes les méthodes possibles de prestation de services. Ainsi, à l'heure actuelle, les pays ont le droit d'exclure certains secteurs de leur économie de l'AGCS. Toutefois, alors que le Canada a choisi de ne pas inclure ses services de santé et d'éducation dans l'AGCS, tant l'Europe que les États-Unis ont opté pour leur inclusion totale.

Aux États-Unis, divers groupes tentent d'obtenir l'inclusion totale des secteurs de la santé et de l'éducation des autres pays dans l'AGCS. Ainsi, la *Coalition of Service Industries* « demande que des intérêts étrangers puissent être propriétaires de toutes les infrastructures sanitaires. Nous pensons que nous pouvons faire avancer les négociations pour permettre aux entreprises américaines de pénétrer les marchés étrangers du secteur de la santé. Traditionnellement, dans de nombreux pays, la responsabilité des services de santé a toujours été entre les mains du secteur public. En raison de cette situation, les prestataires de soins de santé du secteur

privé des États-Unis ont des difficultés à commercialiser leurs services dans ces pays. » C'est d'ailleurs l'opinion avancée par la délégation américaine à l'OMC qui a récemment déclaré que « les États-Unis estiment qu'il existe des possibilités de commerce dans toute la gamme des infrastructures sanitaires et sociales, y compris les hôpitaux, les installations de soins ambulatoires, les cliniques, les centres de soins, et l'aide au logement. »^{7, p. 665}

Cette façon de voir les choses est également reprise par d'importants organismes américains de la santé. Ainsi, l'*Institute of Medicine* dans un rapport récent, *America's Vital Interest in Global Health*,⁸ déclare qu'il est dans l'intérêt direct des Américains que les États-Unis fassent la promotion de la santé mondiale, et prétend que l'augmentation des échanges commerciaux dans le secteur des services de santé permettra à la fois d'améliorer la santé du monde entier et de favoriser les intérêts stratégiques américains. De telles déclarations associées aux évolutions récentes tant en Europe qu'aux États-Unis visant à appliquer l'AGCS à leurs propres services de soins de santé ne

manqueront pas d'exercer des pressions externes sur le gouvernement canadien pour qu'il emboîte le pas.

Les récentes décisions prises par le gouvernement albertain – tant au niveau de la soustraction des services à des prestataires indépendants que l'introduction et la promotion du *Bill C-11* – pourraient aussi avoir pour effet de déclencher une intervention de la part de l'OMC dans le marché canadien de prestation des services de santé. L'article 1.3 de l'AGCS stipule que « dans de nombreux pays le secteur hospitalier regroupe des entités publiques et privées qui sont exploitées commercialement, facturant des frais aux malades ou à leurs assurances pour les traitements fournis. » [Traduction] En outre, « dans tous les régimes de financement mixte, comme ceux qui imposent un ticket modérateur ou le recours à une assurance privée, ou lorsque les infrastructures non publiques sont subventionnées, comme c'est le cas pour les partenariats public/privé ou encore les services soumis à appel d'offres, le secteur des services devrait accepter la concurrence étrangère. »⁹ [Traduction]

...voir Éditorial, à la page 28