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Six essential roles of health promotion research centres: the Atlantic Canada experience

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SUMMARY

Over the past 20 years, the federal government and universities across Canada have directed resources towards the development of university-based health promotion research centres. Researchers at health promotion research centres in Canada have produced peer-reviewed papers and policy documents based on their work, but no publications have emerged that focus on the specific roles of the health promotion research centres themselves. The purpose of this paper is to propose a framework, based on an in-depth examination of one centre, to help identify the unique roles of health promotion research centres and to clarify the value they add to promoting health and advancing university goals. Considering the shifting federal discourse on health promotion over time and the vulnerability of social and health sciences to changes in research funding priorities, health promotion research centres in Canada and elsewhere may need to articulate their unique roles and contributions in order to maintain a critical focus on health promotion research. The authors briefly describe the Atlantic Health Promotion Research Centre (AHPRC), propose a framework that illustrates six essential roles of health promotion research centres and describe the policy contexts and challenges of health promotion research centres. The analysis of research and knowledge translation activities over 15 years at AHPRC sheds light on the roles that health promotion research centres play in applied research. The conclusion raises questions regarding the value of university-based research centres and challenges to their sustainability.

Key words: health promotion; research centres; applied research; knowledge translation

INTRODUCTION

Over the past 20 years, the federal government and universities across Canada have directed resources towards the development of university-based health promotion research centres. In the late 1990s, there were 16 active health promotion research centres in Canada (Rootman *et al*., 2007). The centres each took different approaches in terms of focus and governance, and their sustainability has varied across time. However, all were based on the idea of creating linkages between universities, governments and communities to advance health promotion research and the use of research in health-related public policy that supports the promotion of health and the prevention of illness (Jackson, 2003). Researchers at health promotion research centres in Canada have produced peer-reviewed papers and policy documents based on their work (Pederson, 2007), but surprisingly, no publications have emerged that focus on the specific roles of the health promotion research centres themselves.

Although university-based research centres, including health promotion research centres, are increasingly being recognized as 'sites' of expertise (Lunt and Davidson, 2002; Kiefer *et al*., 2005), their specific roles in research and knowledge translation have not been clearly

articulated. Do university-based research centres have unique contributions to make in understanding and addressing health issues and challenges through health promotion research? Do they assist their host institutions in achieving their goals for research, knowledge translation and student training? Considering the shifting federal landscape of health promotion in Canada (Labonte *et al*., 2005; Pinder, 2007), and the vulnerability of social and health sciences to changes in research funding (Lewis, 2003), health promotion research centres in Canada and elsewhere must articulate their unique roles in order to support their sustainability.

Not all research centres with public policy objectives have the same purpose and structures, and there is no single model for their evaluation (Hanney *et al*., 2000; Tash and Sacks, 2004; Dooris, 2006). As an initial step towards understanding the value of research centres, the purpose of this paper is to propose a framework, based on an in-depth examination of one centre, to help clarify the roles and contributions of health promotion research centres. The framework is based on 15 years of experience in health promotion research at the Atlantic Health Promotion Research Centre (AHPRC), Dalhousie University, in Halifax, Nova Scotia, Canada. The framework provides a foundation for current and proposed research centres seeking to identify their unique roles and to clarify the value they add to promoting health and advancing university goals. We begin with a brief description of the AHPRC and four examples of Centre projects, followed by the framework, the articulation of Centre roles, and the policy contexts relevant to the work of the Centre. We conclude with a discussion of the value added by health promotion research centres and the challenges to their sustainability.

THE ATLANTIC HEALTH PROMOTION RESEARCH CENTRE

In 1993, the National Health Research Development Program (NHRDP) and the Social Sciences and Humanities Research Council of Canada (SSHRC) funded a Centres of Excellence Program which established AHPRC and five other Canadian university-based health promotion research centres. Since then, health promotion research centres in Canada have added value to the achievement of government and university goals individually and through the Canadian Consortium for Health Promotion Research (Jackson, 2003; Rootman *et al*., 2007).

For the past 15 years, AHPRC has been a site of transdisciplinary and intersectoral collaboration in applied health promotion research. The mission of AHPRC has been to conduct and facilitate health promotion research that influences policy and contributes to the health and well-being of Atlantic Canadians. At AHPRC, researchers, staff and students have worked across disciplines, sectors and geographic distance in projects that are local, regional, national and international in scope (AHPRC, 2002). The Centre has generated more than $18 million over 15 years to support the centre operations, and research and knowledge translation projects. Between 1993 and 2007, the Centre Director(s) (the Centre had two Directors over a 15 year period, the first serving from 1993 to 1997 and the second from 1997 to 2006), affiliated researchers, postdoctoral fellows and staff played lead roles in 41 research projects involving university–government–community collaborations. In the same time period, the Centre responded to ~100 requests per year for assistance with health promotion research in the Atlantic region, e.g. identifying funding sources and research partners, reviewing proposals and providing consultation on research plans, budgets and ethics.

The initial 5 years of operation of AHPRC demonstrated that communication and collaboration were key aspects of its functioning, and that 'time, trust, ingenuity, resources and well planned strategies [were needed] to facilitate the uptake of health promotion research' (O'Neill *et al*., 2000). The application of research in public policy contexts was thereafter made more explicit in the work of the Centre, focusing on healthy public policy as a key strategy for improving the conditions underlying poor health (Jackson *et al*., 2007). The Centre has a strong geographic focus on the four Atlantic Canadian provinces, which have among the highest rates of poor health in the nation (Hayward and Colman, 2003), and relatively few resources to address them (Lyons *et al*., 2007). Four projects led by collaborations facilitated by AHPRC, presented in Table 1, illustrate the goals, funding sources and budgets typical of AHPRC projects. The number of

Table 1: Examples of AHPRC projects

Projects, funding sources and budgets	Project goals
Rural Communities Impacting Policy Project, Social Sciences & Humanities Research Council of Canada, $1 010 621	To increase the capacity of rural communities and organizations in Nova Scotia to access and use social science research to influence and develop policy
The *Yarmouth Stroke Project*, Canadian Institutes of Health Research, Heart and Stroke Foundation of Canada, $919 675	To develop a new model for organizing Canadian rural health services for people with stroke or other chronic health conditions
Oral Health of Seniors Project, Canadian Health Services Research Foundation, Nova Scotia Health Research Foundation, Drummond Foundation, Nova Scotia Dental Association, $282 000	To determine the key components of a health services model, based on continuity of care, to improve the oral health of seniors
Participatory Food Security Projects, Canadian Diabetes Strategy (Health Canada), Nova Scotia Department of Health Promotion and Protection, Community Action Program for Children and Canada Prenatal Nutrition Program (Public Health Agency of Canada), $881 571	To engage in participatory research aimed at building capacity at individual, community, organizational and systems levels to influence public policy to support food security for all citizens and populations

collaborators in the projects described in Table 1 ranged from 6 to 27, including university, civil society and government collaborators. Examples are drawn from these projects in the sections that follow to demonstrate six essential roles of health promotion research centres.

ROLES OF HEALTH PROMOTION RESEARCH CENTRES

Our framework (Figure 1) illustrates six essential roles of health promotion research centres. The six roles are framed by the broad policy contexts relevant to health promotion research. Sources of data used to develop the framework included AHPRC annual reports to Dalhousie University Senate, reports to research funders and a synthesis of types of research support provided to researchers by AHPRC over 15 years. The data were analysed and distilled, resulting in the identification of six essential roles. The framework draws on Cooke's (2005) model for the evaluation of research capacity building in health services. Similar to research capacity building in health systems, research capacity building in universities requires a variety of structures and mechanisms to support research development and implementation.

In Figure 1, the six essential roles of health promotion research centres are portrayed as separate, but are in fact highly interdependent. The first role, developing and sustaining the operational base of the centre, is fundamental

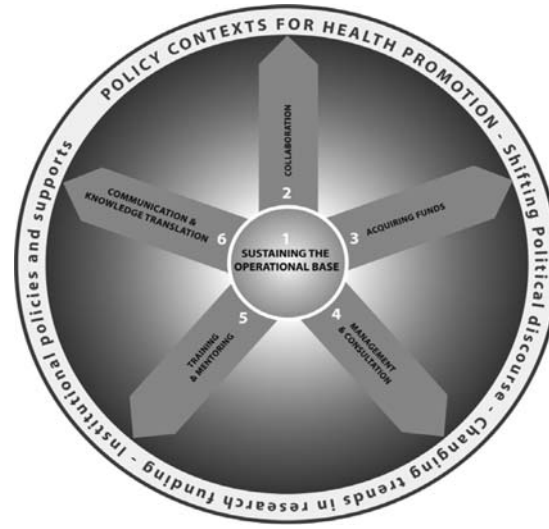

Fig. 1: Six essential roles of health promotion research centres.

to the other five. Each of the roles is described below, beginning with this fundamental role.

Sustaining an operational base

The operational base for university-based health promotion research centres includes physical space, research leadership and capable staff who are skilled at developing grant proposals and managing research projects, budgets and human resources (Hanney *et al.*, 2000; Segrott *et al.*, 2006). The presence of a physical space, where people can come together, helps to develop a research culture where 'learning communities'

emerge and groups of stakeholders engage as colleagues across formal and social boundaries (Edwards, 2005; Segrott *et al*., 2006). The projects portrayed in Table 1 were realized as a function of the AHPRC operational base. The survival of health policy research centres in Canada depends on sustaining an operational base, in part by demonstrating their academic and applied value (Mekel and Shortt, 2005).

The physical infrastructure for AHPRC (office and meeting space) is provided by Dalhousie University. The university also provides administrative support through the university offices of finance, personnel, and research services, library services and salary support for a faculty member who serves as the Centre Director. Between 2001 and 2006, the three core staff at AHPRC were supported by Health Canada and the Departments of Health in the four Atlantic provinces (Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland and Labrador). Research projects and related activities were financed through external grants acquired from national, regional and provincial funding agencies through competitive peer review processes.

AHPRC core staff consists of the Coordinator, Research Consultant and Administrative Assistant. The Director, Coordinator and Research Consultant provide leadership within the Centre. The position of Director has been occupied by the same person since 1997 and the Coordinator and Research Consultant positions have been occupied by the same people between 1993 and 2007. This stability of leadership has contributed to the continuity of the Centre, the accumulation of knowledge, the establishment of longstanding collaborations and the honing of approaches for collaborative research and student training.

The Director and other faculty members take scientific leadership roles on projects, but participatory approaches such as co-directorship of projects and co-chairs of working groups are characteristic of many AHPRC projects. A research culture that emphasizes collaboration has been developed within the Centre. Ingredients include a commitment to applied research and to training the 'next generation' of collaborative researchers, e.g. students and post-doctoral fellows. Committed teams are able to develop programmes of research that span several years and funding sources, that attract junior researchers and that involve students and post-doctoral fellows.

Transdisciplinary and intersectoral collaboration

Health promotion research is transdisciplinary in the sense that health promotion researchers are often working across the conceptual and methodological traditions of a number of disciplines (Gibbons *et al*., 1994). Over the past decade, there has been an influx of social science researchers into the health promotion field, promoting opportunities for strengthening the theoretical foundations of research on the social determinants of health (Frohlich *et al*., 2001). At the same time, interdisciplinary and intersectoral research is being required by funding agencies, with the expectation that it will produce more accessible, policy-relevant knowledge (Walter *et al*., 2003; Giacomini, 2004).

Representation from a broad range of disciplines and sectors on project teams increases the ability to identify key stakeholders and access a range of resources, e.g. human, financial or informational (Foster-Fishman *et al*., 2001; Larson, 2003), and increases the potential for researchers to engage with a broad range of 'policy shapers' including policy decision-makers and civil society organizations (Eriksson and Sundelius, 2005). Transdisciplinary and intersectoral research requires time, space and resources, particularly at the outset (Walter *et al*., 2003).

At AHPRC, project teams typically include researchers from Atlantic Canadian and other Canadian universities (a mix of seasoned and junior researchers), representatives from government and civil society organizations, project staff and students. Project Steering Committees provide project direction and disbursement of resources, while working groups are typically linked to specific project objectives, and often include other stakeholders in addition to members of the project team.

AHPRC provides the structures and mechanisms that are needed to support large-scale research collaborations. Formal agreements have been used in AHPRC projects to articulate the roles of members of research collaborations, how resources will be shared, decisions made and outcomes evaluated. In the Rural Communities Impacting Policy Project, a Collaborative Partnership Agreement was signed and terms of reference developed for the Steering Committee and working groups, outlining objectives, principles for collaboration and evaluation indicators. Similarly, a Partnership Agreement was signed in the Participatory Food Security Projects between

AHPRC, the Nova Scotia Nutrition Council and Family Resource Centres/Projects in Nova Scotia.

Maintaining stable representation from a range of sectors on project teams can be challenging, if projects span more than 2 years, particularly due to frequent changes in government structures and staff. Commitment to projects often fluctuates, and collaborators may revisit project objectives and renew their commitment several times during long-term projects. Adding new members to project teams necessitates their orientation to the project, but also brings new perspectives, skills and linkages. Not all collaborators, notably community collaborators, have the resources needed to participate in research. Research budgets are used to provide support (e.g. travel, accommodations, childcare, computer equipment and honoraria for time spent on project activities) to enable the participation of community collaborators.

Acquiring research funds

The competition for health research funds in Canada is increasing in intensity (Canadian Institutes of Health Research, 2007). Atlantic Canada has the greatest gaps in research capacity, where resources for research are less abundant than in other parts of the country (Canadian Institute for Health Information, 2002; Nova Scotia Health Research Foundation, 2007). Challenges to research development in the region include small numbers of researchers and difficulty recruiting and retaining them (e.g. lower salaries and fewer university supports for research than in other parts of Canada), limited regional funding sources for research, and the challenge of competing for funds at the national level with large, well-resourced institutions. At AHPRC, financial resources have been acquired through a wide variety of funding mechanisms to develop research teams and proposals, to conduct collaborative research projects, to support demonstration projects, to organize international, national, regional and provincial conferences and workshops, to conduct research syntheses and to produce knowledge translation reports, guidelines, workbooks and videos.

In some cases, acquiring new resources for research and the development of healthy public policy was linked to the development of research evidence in AHPRC projects. The Participatory Food Security Projects collected data on the cost of a basic nutritious diet, which led to the allocation of provincial funds to support annual food costing and to develop a food security lens for policy decision-makers (Policy Working Group of the Nova Scotia Participatory Research Projects, 2006). The Yarmouth Stroke Project contributed to the decision to commit municipal and provincial funds to address gaps in services for people who have had a stroke and their caregivers, e.g. establishment of integrated stroke care at the regional hospital and development of a provincial stroke strategy.

Similarly, spin-off projects were often carried out by leveraging funds from large research grants. The Rural Communities Impacting Policy Project leveraged funds for a project on volunteer engagement in the management of small harbours, and for a project that provided a policy entrepreneur to work on the issue of recruiting and retaining health professionals in rural communities, among others. The momentum established through collaboration in the Participatory Food Security Projects was sustained over the development, funding and implementation of seven projects housed at AHPRC between 2001 and 2006, and policy-related work continued beyond this time frame to generate research and influence policy at provincial and national levels (Williams *et al*., 2006; Atlantic Health Promotion Research Centre, Family Resource Centres/Projects and Nova Scotia Nutrition Council, 2005). Substantial in-kind contributions from government and civil society organizations are also mobilized through collaborative research. Staff at AHPRC monitor research funding sources and trends, enabling the Centre to quickly bring together teams and prepare proposals when funding opportunities are announced.

Project management and consultation

Research centres provide a venue for group research and play an essential role in developing and managing the physical, financial and human resources associated with large-scale research projects (Hanney *et al*., 2000; Tash and Sacks, 2004). Research management and consultation services provided by research centres allow groups to envision goals that exceed the expertise and resources available to individual researchers or small teams (Rapkin *et al*., 2006). Consultation roles played by leaders and staff in research centres include conceptual development, tool development, staff training, literature searches, identification of referral resources and

grant writing (Lunt and Davidson, 2002; Hall *et al*., 2006).

AHPRC's core staff have played critical roles in the development of new research teams and the acquisition of research grants and contracts, and often continue to contribute as project team members once funding is acquired. The Centre provides projects with governance models, communications advice, financial monitoring, and support and supervision for staff and students. Some research projects had satellite offices in other parts of the province, e.g. the Yarmouth Stroke Project, which were also support by AHPRC staff.

Managing large collaborative research projects can be a challenge for project coordinators. Coordinators require a variety of skills including research methods, group facilitation, networking, event organization, financial and personnel management, computer and communications skills. AHPRC brings project coordinators together for bi-monthly meetings to offer opportunities to build or strengthen team management skills, and to engage in reflection and collective problem solving related to collaborative research and knowledge translation.

Training and mentoring

Training and mentoring of junior researchers and students helps to build individual skills and knowledge, as well as contributes to the development of intellectual and social capital (Cooke, 2005). Actively engaging students in research collaborations provides them with real-world experience to apply and augment their classroom learning (Chopyak and Levesque, 2002). Time and resources for student training are built into all AHPRC projects. The Rural Communities Impacting Policy Project included a research internship programme through which students were supported by faculty and community collaborators to conduct community-based research on issues identified by rural community organizations. Between 1993 and 2007, 85 students were employed at AHPRC through research assistantships and internships, and students have completed undergraduate and graduate thesis research in conjunction with Centre projects. Students trained at AHPRC have gone on to pursue graduate and post-graduate studies in health promotion and related fields and to assume positions in provincial and federal health promotion and public health departments and agencies, university research services and the non-profit sector. Students and post-doctoral fellows benefit from an approach that goes beyond the single academic supervisor model to encompass learning from a group of highly skilled researchers and collaborators.

The AHPRC Director, Coordinator and Research Consultant frequently engage in mentoring other university and community-based researchers both formally (through workshops) and informally (through meetings, e-mail and telephone). Training sessions in grant writing and in knowledge translation have been conducted and print resources in these areas have been developed and made accessible via the internet. One post-doctoral fellow mentored at AHPRC was recently awarded a Canada Research Chair in Food Security and Policy Change. A new member of the University's Faculty of Dentistry mentored at AHPRC was successful in building a health promotion research programme focused on the oral health of seniors, and is actively involved at both provincial and national levels in research and policy development related to oral health (AHPRC, 2006).

Communication and knowledge translation

Communication is critical to increased understanding and respect across the research, policy and community 'worlds' (Ross *et al*., 2003; Cooke, 2005). However, communicating across sectors and disciplines can be challenging and creative approaches are needed to address communication gaps (Choi *et al*., 2005; Edwards, 2005). Mechanisms for communication within AHPRC-based projects have included regular meetings, workshops to build skills or knowledge within the group (e.g. working with media), and shared decision-making within committees and working groups. Effective communication within research collaborations fosters a collective identity and reflective decision-making (Ross *et al*., 2003; Edwards, 2005).

Communications tools and mechanisms developed by AHPRC projects are often based on adult education principles that acknowledge the diversity of collaborators on project teams. In the Participatory Food Security Projects and the Rural Communities Impacting Policy Project, story telling was used in policy forums and workshops to bring a human dimension to quantitative research. At the Oral Health of Seniors Forum, a skit in which project team members played

'sectoral' roles (e.g. dentist, patient and insurer) was used to convey complex research findings to a mainly non-research audience.

Knowledge translation includes, but goes beyond, communication. Knowledge translation has been defined as 'developing strategies to get research and its implications into the hands and minds of those making clinical, managerial and policy decisions' [(Gold *et al*., 2005), p. 64]. Participatory research has been recognized by the Canadian Institutes of Health Research as one form of knowledge translation (Canadian Institutes of Health Research, 2003). Other strategies for knowledge translation used at AHPRC have included research synthesis, knowledge networks, knowledge brokers and building receptor capacity within health systems. Supported by national funding, AHPRC has developed conceptual and practical tools for encouraging the use of research in health-related policies and programmes (Lyons and Warner, 2005).

Networking and interpretive forums have proven effective at AHPRC as means for the discussion of research results with stakeholders external to project teams (Golden-Biddle *et al*., 2003; Edwards, 2005). Other mechanisms for communicating with external audiences have included peer-reviewed publications and presentations, policy backgrounders and briefs, fact sheets and newsletter articles, newspaper, radio and television interviews, community and scientific conference presentations, and displays at public events. A communication consultant is retained on a part-time basis to help prepare media communications and policy briefs. The AHPRC website features project profiles and resources, and most projects establish their own websites. The Centre provides a vital mechanism for carrying on knowledge translation activities after projects have officially ended and project funds expended.

THE POLICY CONTEXT OF HEALTH PROMOTION RESEARCH

Research at AHPRC takes place within two broad policy contexts: the first is the changing discourse and funding structures related to health promotion and research, and the second is the landscape for the use or application of health promotion research. Health promotion research is conducted within the shifting national political discourse surrounding health promotion and changing trends in research funding. In the shifting political discourse related to health promotion in Canada, the language of 'population health' is threatening to replace the terms health promotion and public health (Labonte *et al*., 2005). Where the application of research is concerned, despite Canada's preeminence in the field of health promotion, health promotion remains a 'poor cousin' in the allocation of federal resources (Bégin, 2007).

An increasing emphasis on evidence-based decision-making in medicine and other health-related disciplines has created an unprecedented focus on using research to support decision-making in health services and public policy in Canada. This emphasis underpins an emerging research modality which places greater focus on applied research and intersectoral collaboration (Gibbons *et al*., 1994; van Manen, 2001). Research funding agencies such as the Canadian Institutes of Health Research, the Social Sciences and Humanities Research Council of Canada and the Canadian Health Services Research Foundation have developed programmes that reflect this new modality of research (Chopyak and Levesque, 2002).

Research funding has historically favoured the more prestigious 'pure' sciences that use randomized control trials. Changing trends in funding, such as the emergence of community–university partnership funding programs, e.g. the Community University Research Alliances (CURA) programme within the SSHRC, have helped to improve the credibility of applied research. 'Partnerships enhance the credibility and ownership of research among users, promoting its uptake' (Walter *et al*., 2003). Research is increasingly being used by community-based and governmental organizations to support advocacy efforts (Nutbeam, 2001; Chopyak and Levesque, 2002) and health services decision-making (Denis and Lomas, 2003; Kiefer *et al*., 2005).

In order for health promotion research to effect change, commitment to collaboration in specific topic areas is required over time. The level of collaboration required for applied research and knowledge translation is not rewarded in tenure and promotion systems in academia in the same way as more traditional academic pursuits (Larson, 2003; Mekel and Shortt, 2005). University policies and supports for applied research are improving, but the value accorded to the time and effort spent on collaboration has not kept pace with the increasing demand for applied health research.

One challenge for health promotion research centres is the broad range of potential public policy areas where health promotion research could be used, including policy related to the social determinants of health and illness/injury prevention. The project goals outlined in Table 1 reflect the generally rural, and relatively economically disadvantaged, character of the population in Atlantic Canada. Policy contexts influencing research use include the formulation of public policies to support rural health and sustainability, including rural economic and community development, rural health systems and both food access and food supply determinants of food security. Research-informed public policies at multiple levels—federal, provincial and municipal—are needed to improve the conditions underlying poor health in the region.

Health promotion research centres also have critical roles to play in global health. The prevention of chronic illness, a longstanding goal of health promotion, is critically needed as chronic illness is now the main cause of both death and disability worldwide (Abegunde *et al*., 2007; WHO, 2008). Health promotion research and knowledge translation must play a major role in understanding and addressing the prevention of chronic illness through strategies such as healthy public policy and supportive environments. However, the translation of research into action clearly depends on sustained research and knowledge translation efforts within regions, countries and through international collaboration. Lone researchers working within the boundaries of typical granting agencies on small health promotion studies are not sufficient to examine and impact the chronic illness 'wave' currently taking place across the world (Choi *et al*., 2008). Incubation and development of effective social-health strategies can develop within a strong research centre infrastructure that supports such efforts. The international health promotion research community must move beyond small, 'one-off's' (Bégin, 2007) to critically examine the nature of research infrastructure necessary to become central players in the global battle against chronic illness.

DISCUSSION

Current trends in research funding for health and social sciences in Canada have created an environment in which the kind of roles played by research centres are essential for meeting the research requirements for population health, satisfying the requirements of funding programmes for collaborative research, and fostering the advancement of health promotion (Kiefer *et al*., 2005). The analysis of research and knowledge translation activities over 15 years at AHPRC sheds light on six essential roles that the Centre plays in research and knowledge translation in Atlantic Canada. Other research centres may benefit from conducting a similar analysis of their roles. Are the roles identified for AHPRC similar to those played by other health promotion research centres? Are these roles applicable to other types of university-based research centres (e.g. health or social policy centres)? Are some roles more important in health promotion research centres than in other types of research centres (e.g. collaboration)?

Health promotion research centres provide a foundation for sustained focus in specific research areas, sustained relationships between research collaborators, and training sites that facilitate advances in health promotion research. They also add substantial value to universities through acquiring external funds; attracting students, post-doctoral fellows and faculty interested in health promotion research; and developing a culture that supports collaborative, applied research. Research centres may generate as much as one-third of the external research funds brought into universities, making them an investment that has yet to be fully realized (Tash and Sacks, 2004).

Health promotion research centres face a number of significant challenges to their sustainability, including shifting political discourses and reduced resources at the federal level for health promotion research. In a political climate of 'evidence-based decision-making', health promotion cannot offer the kinds of cause-and-effect research outcomes that are valued in the 'hard' sciences. However, participatory forms of research have contributed to the generation of new data, more sensitive and knowledgeable stakeholders, increased advocacy, and more meaningful, sustainable policy change (Kuruvilla, 2005).

Most university-based research centres do not have stable, long-term funding. Substantial time and effort are spent pursuing infrastructure funding, in addition to project funding (Mekel and Shortt, 2005). The constant pursuit of funds

can lead to 'mission drift', whereby funds may be pursued in areas that do not fit well with centre objectives but allow for continuing centre operations and maintaining staff (Tash and Sacks, 2004). Although maintaining operational infrastructure is just one of the essential roles played by research centres (Hanney *et al*., 2000), it can present the biggest challenge to their sustainability (Mekel and Shortt, 2005).

Health promotion research centres bring together social science and policy perspectives through transdisciplinary and intersectoral collaboration in research. They can help to navigate the shifting landscape of health promotion research in Canada and globally, by increasing the societal relevance of both health promotion research and universities. Analysis of the essential roles of university-based research centres can help universities and others in their deliberations related to the investment of resources for collaborative and applied research.

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