




BC Nursing Research Initiative:  
Nursing Health Services Research Database  
Needs Assessment Survey

Report on Survey Findings



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Health Research

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## Glossary of Acronyms

BC	British Columbia
BCEOHRN	BC Environmental and Occupational Health Research Network
BCNAR	BC Network for Aging Research
BCNRI	BC Nursing Research Initiative
BCRRHRN	BC Rural and Remote Health Research Network
CIHR	Canadian Institutes of Health Research
CV	curriculum vitae
CYHRNet	BC Child and Youth Health Research Network
DHRN	Disabilities Health Research Network
KT	knowledge translation
MSFHR	Michael Smith Foundation for Health Research
NEAHR	Network Environments for Aboriginal Health Research
NEARBC	Network Environments for Aboriginal Research BC
SSHRC	Social Sciences and Humanities Research Council
WHRN	Women's Health Research Network

# 1. Executive Summary

## Background

The aim of the BC Nursing Research Initiative is to build capacity in nursing health services research. One of the proposed capacity-building tools is a database of nursing health services research expertise and activities, which would serve as a resource and linking mechanism for researchers and members of the nursing health service practice and policy communities. Other such databases that have been developed within specific areas of research (such as the MSFHR Health of Population Networks' databases) have proved useful to the research community. Such databases can serve different purposes: to allow people researchers, policy makers, and community members to find others working within specific topic or geographical areas; to provide a search base for journal publications and/or grey literature; to allow users to search for current research projects or research findings; and/or to provide a reference for research funding. In order to investigate what kind of database would be most useful to the nursing research community, a needs assessment was undertaken.

The needs assessment consisted of an online survey of potential users, and a scan of the MSFHR Health of Population Networks databases. The findings of both are presented in this report.

## Process

An invitation to complete the survey was posted on the MSFHR website and emailed to 500 potential users within the nursing community. In addition, it was discussed at the Town Hall meetings that took place throughout BC in October and November 2008 to build awareness about the upcoming activities of the BC Nursing Health Services Research Initiative. A total of 191 people completed the survey.

The survey responses provided a reliable sampling of people in terms of geographic location and type of work they undertake. The distribution of respondents across the province closely matched the general population of BC, and there was an almost equal representation from three of the main anticipated user groups (nurses and nurse practitioners, researchers, and administrators). This allows for good generalizability of the data.

Databases developed by the MSFHR Health of Population Networks have a similar aim to that of the proposed nursing research database. For this reason, a scan of these databases was undertaken to better inform this needs assessment. The scan involved looking at the content and purpose of each database (members directories, literature searches, etc.), followed by interviews with select people involved in the database development to find out what their needs assessment processes consisted of and what lessons they could share from the experience.

## Outcomes

The majority of survey respondents (80%) were in favour of a database. Their reasons for using such a database were very evenly weighted across the topic areas (finding researchers, finding current projects, finding research results, networking, and mentoring), with most users wanting the database to meet several purposes. In terms of database content, there was almost equal interest across the potential areas (current research activities, contact information, literature abstracts), and again, most users wanted more than one type of information to be available.

Responses to the open-ended question on comments or other ideas for the database could be grouped into several main categories. Many people had ideas about user groups and database accessibility: public or private, including students and frontline staff, etc. The majority of the comments focused on content: what should be included, and what might be expanded beyond the scope suggested by the survey. Tied closely to this were concerns about functionality and duplication: do other databases already exist that serve these purposes (particularly for literature searches), could the database be linked to already existing ones, and how would it be kept current? Many users were also interested in the networking possibilities that such a database would provide.

The scan of the Health of Population Networks' databases showed different possibilities for the content of research databases. The databases focused on network members (membership may be limited to researchers, or may include other interested parties), journal abstracts, grey literature, current research projects, or some combination of these. This will form the main area of decision for development of the nursing health services research database.

From the interviews, two main points were stressed. Involvement of stakeholders and potential users is key to the success of the database and it is helpful to build as much as possible from already developed models.

## Recommendations and Next Steps

Given that the environmental scan was not conducted at a national or international level, an important next step would be to widen the scan to see if other, similar databases already exist. Survey respondents were concerned about duplication of efforts, both with existing technology and in terms of potential for future linkages.

Further steps will involve assessing the survey results to inform decisions about the database audience, content, and functionality. Examining the Health of Population Networks' databases will be useful in determining a model, and the information gathered from the network interviews will also help inform the decision-making process.

The key next steps for initializing the database will be to (1) decide who will oversee and be responsible for its development, and (2) come to a decision on database content. After this, the technical aspects of the database will come into discussion; again, information from the Health of Population Networks can help inform decisions on this.

## 2. Background to Survey

Funded by the Ministry of Health Services, the Michael Smith Foundation for Health Research, supported by a Nursing Research Advisory Council, is launching programs to build capacity for and support practice-relevant nursing health services research. A key strategy is the development of a provincial network to link researchers and the practice community in provincial planning and strategy development.

In addition to the provincial network, one of the tools proposed to link researchers and members of the nursing health service practice and policy communities is a **database of nursing health services research expertise and activities**. Examples of what the database might include are:

- names and contact information for academic researchers
- names and contact information for practitioners and policy-makers who are involved in research
- areas of research interest
- abstracts of peer-reviewed literature
- abstracts of grey literature
- descriptions of current research activities

To find out how much interest there would be in such a database, and what users' needs would be, a survey of potential users was conducted in November 2008. The results of the survey are presented in detail in Section 3 of this report. These results will be used as the basis for decision-making on how to proceed with the database.

### **2.1 Survey Methodology**

The needs assessment survey was developed by a working group, and pilot-tested by several potential database users in the research community. It consisted of seven questions, which were a mixture of single-response, multiple-response, and open-ended questions. An online tool (SurveyMonkey) was used to conduct the survey. An invitation to complete the survey was sent to more than 500 people in the nursing health services research community, within more than 75 different organizations (hospitals, universities, colleges, health authorities, government ministries, unions, and other). Information on the survey, along with an invitation to complete it, was also posted on the MSFHR website. In addition, the survey was discussed at the Town Hall meetings that took place throughout BC in October and November 2008: attendees were invited to go to the website where they could complete the survey. The survey ran for five weeks, and a week before its close, an email reminder was sent.

Of the five hundred email invitations and open invitation, 191 responses were received.

The survey questions were as follows:

1. How would you best describe your job?
  - 1a. If you are a researcher, what type of research are you involved in?
  - 1b. If you are an administrator, what type of administration are you involved in?
2. Which BC region are you located in?
3. Would you use a nursing health services research database?
4. For what purpose would you use the database?
  - 4a. If you are interested in being a mentor, what would you be looking for?
  - 4b. If you selected 'networking', what would be the purpose of the networking activities?
5. What would you want to be included in the database?
6. How would you want to search the database?
7. Other comments or suggestions about a nursing health services research database.

## ***2.2 Environmental Scan of Health of Population Networks' Research Databases***

As well as the survey, an environmental scan was conducted of the MSFHR Health of Population Networks who have already built research databases. The scan included telephone interviews with the network coordinators and/or database administrators to gain from their knowledge of:

- what kind of needs assessments they conducted for their databases
- decision-making processes for what the databases would consist of
- use of the databases and feedback from stakeholders
- any other lessons learned

The interviews took place in November 2008, and five of the networks were available; the results of these interviews are summarized in Section 4 of this report.

### 3. Survey Findings

A total of 191 people completed the survey. As respondents did not have to answer all questions, the number of responses to each question will vary. This section summarizes the responses to each question.

#### 3.1 *How would you best describe your job?*

Respondents could choose more than one answer to this question, as many people have more than one type of job role. In fact, almost 40% of the survey respondents worked more than one role. The distribution across job categories was as follows:

Job Category	Number of Responses	% of Total
Nurse/ Nursing Practitioner	61	25%
Administrator	54	22%
Researcher	53	22%
Nurse Educator	36	15%
Student	17	7%
Other	9	4%
Government	8	3%
Faculty/ Teaching	8	3%

This distribution shows that the survey results provide a representative sampling across job areas: many areas were included, and no one job category accounted for the majority of responses. Of the three most populous categories – nurse/nursing practitioner, administrator, and researcher – there was an almost equal distribution (25%, 22%, and 22%, respectively).

Those who chose "other" worked in the following areas (and many are included in the multiple roles):

- administrative assistant
- clinical practice consultant
- College of Registered Nurses of BC
- patient educator
- policy analyst
- regulator
- union leader, nurse advocate
- volunteer for non-profit society

Of those whose work spanned two more categories, the most prevalent among these were nurses and nurse practitioners, nurse educators, researchers, and students.

### 3.1.1 What type of research are you involved in?

Those respondents who said they were involved in research were asked to identify their area of research: nursing, health services and policy, or "other". (Note: respondents could select more than one answer, as their research may span categories.) The distribution was as follows:

Area of research	Number of responses	% of Total
Nursing related	59	48%
Health services and policy research	44	35%
Other	21	17%
<b>Total</b>	<b>124</b>	<b>100%</b>

Of the respondents who answered this question, 23% were involved in both nursing related and health services and policy research.

"Other" included (but was not limited to):

- biomedical and clinical research
- clinical teaching and ethical decision making
- education
- fatigue and patient safety in ICU
- HIV/AIDS
- social determinates of health
- women's health
- social epidemiology
- public health

### 3.1.2 What type of administration are you involved in?

Those respondents involved in administration were asked what type of administration they were involved in. Again, respondents could select more than one answer.

Area of Administration	Number of Responses	% of Total
Nursing related Administration	50	65%
Other Administration	27	35%
<b>Total</b>	<b>77</b>	<b>100%</b>

"Other" included:

- community linkages
- education
- human resources

- government, regulatory, and nursing policy
- health informatics/telehealth
- health sciences education
- home health (all disciplines)
- human resources
- other health disciplines, such as social worker
- program management
- public health

### **3.2 Which BC region are you located in?**

As shown in the table below, the distribution of survey respondents by region closely matched the distribution of the population of BC. In this way, the survey has provided a good representative sampling by geographic area.

<b>Region of BC</b>	<b>Number of Responses</b>	<b>% of Total</b>	<b>Distribution of Population of BC</b>
Lower Mainland/Fraser Valley	103	57%	58%
Interior	34	19%	17%
Vancouver Island	28	15%	17%
Northern	16	9%	8%
<b>Total BC respondents</b>	<b>181</b>	<b>100%</b>	<b>100%</b>

(There were also four respondents located outside of BC, and four who preferred not to disclose their geographic location.)

The fact that the geographic areas and job categories give such a representative 'spread' allows for good generalization of the survey results data.

### 3.3 *Would you use a nursing health services research database?*

The respondents were clearly in favour of a database. Only 2% said they would not be interested, while 18% were undecided.

#### Would you use a nursing health services research database?

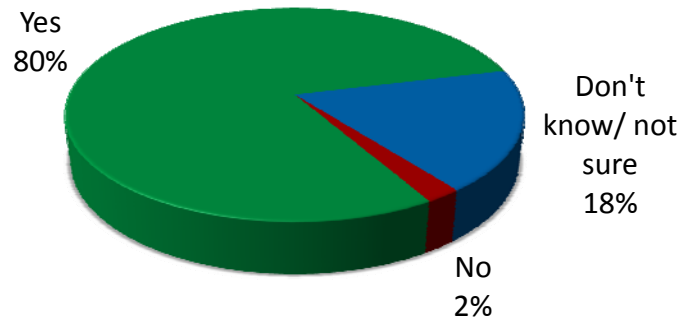


Figure 1. Interest in using the database

Reasons for not being interested included:

- "It is my belief that it is not connecting people that is required. If you are interested in research there are many ways to find connections with others. I believe the problem is more with motivation."
- "It's just as easy to do a lit search. Then, I'm confident it's current and comprehensive."

### 3.4 *For what purpose would you use the database?*

For this question, respondents could choose multiple answers: a total of 607 responses were selected. This means that on average, each person wanted to use the database for three different purposes. The distribution of responses was as follows:

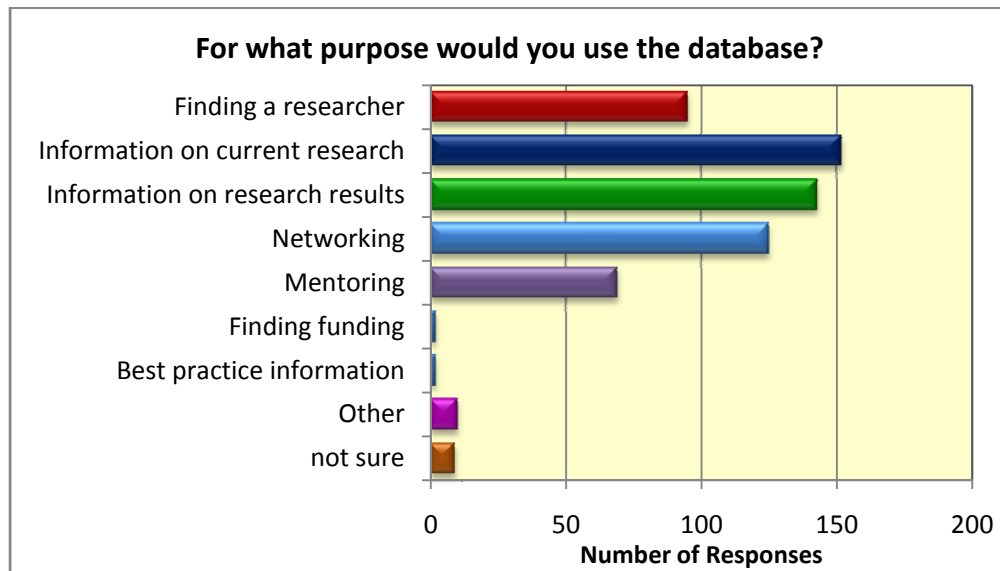


Figure 2. **Purposes for using the database**

There were four main areas of interest in the database. More than 140 respondents were interested in finding information on current research and research results, while more than 120 were interested in networking, and 95 were interested in finding a researcher. Many (n=69) were also interested in networking. Only a few were interested in finding funding or best practice information, while some respondents were not sure what they would use the database for.

What these results show is that most users would want the database to fill several requirements, and the main aims of these requirements focus on *finding people* (researchers, networking, mentoring) and *finding research information* (current projects and research results).

Several respondents had other suggestions for database usage, and these included:

- identifying existing collaborations
- identifying areas of nursing research that are currently not being addressed in the province
- finding information about synthesized research results (not just individual studies) (e.g., in the form of practice guidelines)
- benchmarking
- finding links to researchers beyond BC as well
- finding research backup for certain clinical and administrative practices
- teaching resource
- informal research
- links to magazines that provide articles and evidence based support
- to inform policy and practice

### 3.4.1 If you selected 'networking', what would be the purpose of the networking activities?

This was an open-ended question. The responses can be grouped into the following categories (with some responses covering more than one topic area):

- Collaboration — this included collaborative research, partnerships within topic areas, and partnerships of academia and service sector
- Research community – to know who else is working in similar geographic or topic interest areas
- Knowledge translation and evidence-based practice — this included finding and using research results, generating new research ideas, improving and standardizing practice, and building a community of practice in nursing.
- Sharing expertise and knowledge – this is similar to knowledge translation but often more 'explorative': sharing ideas, information, and problem solving
- Common Issues — discussing and addressing
- Funding – this included finding funding and finding or giving assistance with grant proposal writing
- Generating new research ideas

The graph below shows the number of comments in each topic area:

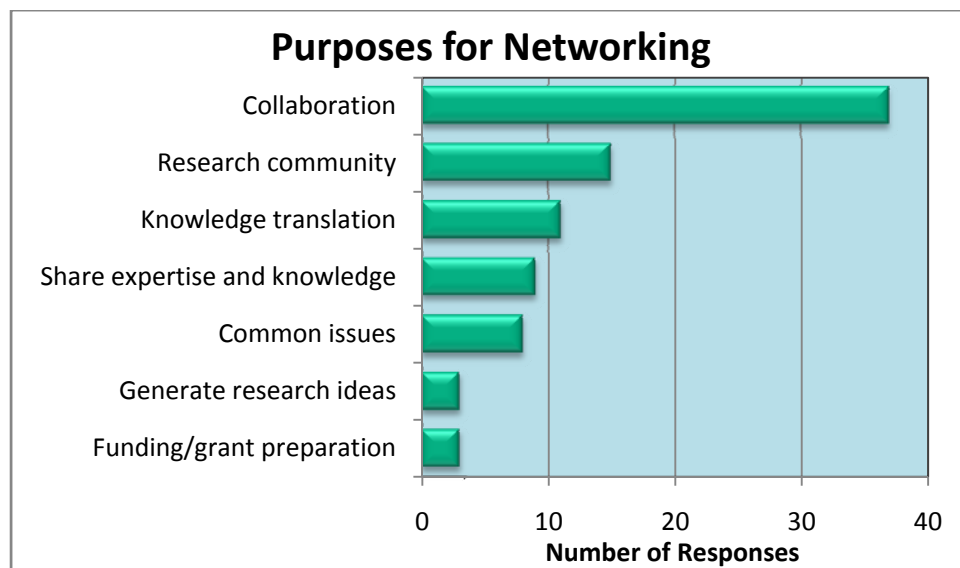


Figure 3. Purposes of networking

### 3.4.2 If you are interested in mentorship, what would you be looking for?

Those who were interested in using the database for mentorship purposes were asked if they were looking for a mentor or interested in being a mentor. A total of 93 respondents (out of 191) were interested in mentorship. The graph below represents the number of respondents: it is interesting to note that 21 respondents (11%) were interested in both being a mentor and finding a mentor.

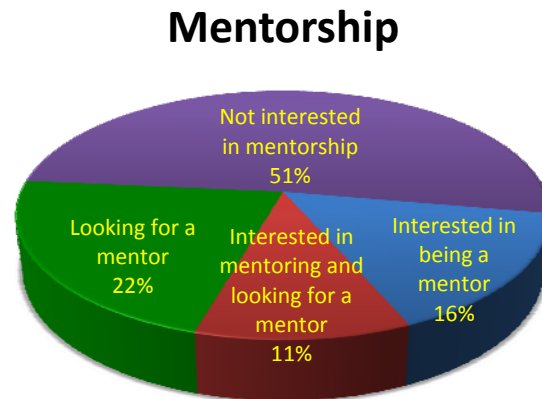


Figure 4. Interest in mentorship

### 3.5 What would you want to be included in the database?

For this question, respondents could again select more than one response. A total of 868 responses were gathered, which means that most people would be using the database for several purposes.

The answer choices were:

- names and contact information for academic researchers
- names and contact information for practitioners and policy-makers who are involved in research
- areas of research interest
- abstracts of peer-reviewed literature
- abstracts of grey literature
- current research activities
- other

The distribution of the responses is represented in the graph on the following page.

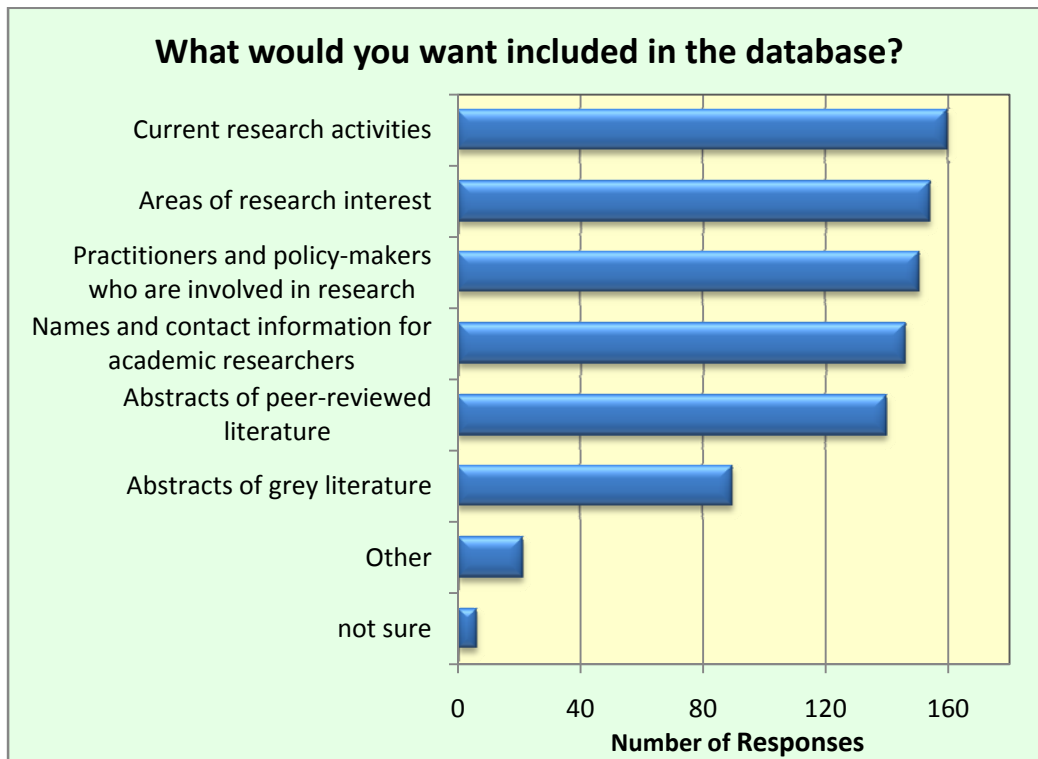


Figure 5. **Types of information to be included in the database**

This shows that there is an almost equal amount of interest across the first five content areas, with the sixth (abstracts of grey literature) also accumulating many responses. This again reinforces the idea that users want the database to meet several needs.

The "other" responses included the following:

- a place to enquire whether anyone else in the province is interested in partnering
- areas that need research related to Nursing
- best practice summaries
- current projects, funding & sources, links to output of projects
- decision-makers and policy makers: areas needing further research development
- estimation of level and type of expertise/experience held
- examples of research applied to improve health system
- frequently asked questions: purpose of the database; what it includes; how to access the system; how to suggest a resource; how to get help. Also, an index of relevant databases would be helpful and links to key other health services research databases.
- funding sources
- conflict of interest declarations for all researchers
- information about current collaboration/research teams; sources of funding; the ability to invite people to contribute to current research projects; ability for policy makers and practitioners to submit research questions or indicate what information is most helpful to them.

- methodologies in which they are expert
- potential funding opportunities or group collaborations
- research projects within last 5 years
- research support resources
- researching opportunities
- websites, team involvement, organizational/committee affiliations

### 3.6 How would you want to search the database?

Respondents could select more than one answer to this question. A total of 427 responses were collected. The responses are summarized in the graph below:

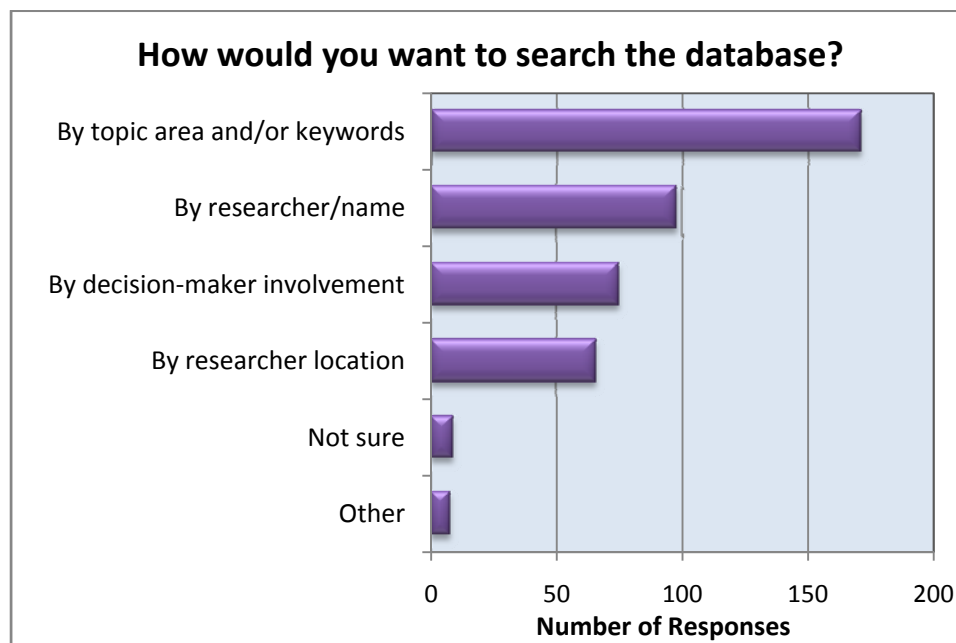


Figure 6. Methods of searching the database

Most survey respondents selected multiple answers (an average of 2.2 per person) for this question. This shows that potential users would expect the database to have multiple search options. The strong interest in topic area and keywords suggests potential for networking and capacity-building in specific research areas (as people are interested to know who else is working in their specific field).

The "other" responses included:

- by author
- by funding source (categorize e.g. grants vs. contracts; also agency/company names)
- by resource profile
- by role (e.g. student, post doctoral fellow, decision-maker)
- by sector (e.g. Home & Community Care)
- chronology (dates)

- full-text search
- title of research report/article

### **3.7 Other comments or suggestions about a nursing health services research database.**

This question allowed an open-ended response. Each respondent could provide one response, and there was little limit to the amount of text so that respondents could address as many issues as they wished. The responses are presented in the table below, and grouped into broad categories (by the survey data analyst). Where a response covered more than one category, it has been divided so that the relevant information could be shown in the appropriate category.

Many of the comments expressed favour or disfavour for the database, and some of the respondents provided the reasons for their choice. The majority, as indicated by survey question #3, were in favour of the database. Many respondents showed interest in the networking potential a database would create.

The greatest number of responses focused on database accessibility, functionality, and content: who would be able to use the database, how, and what else it might include apart from the topics suggested by the survey. There were some suggestions for linking the database with already existing resources; many respondents voiced concern over possible duplication of efforts, especially with publications databases. Others were concerned with how data in the database would be kept current.

The responses are shown in the table below.

<b>Grouping</b>	<b>Open-Ended Response</b>
<b>In favour of the database</b>	A fantastic idea!
	An excellent research resource.
	Good idea
	Great idea. Seems to work for many of the Health of Population Networks as well.
	Having a database would be helpful.
	I think a database would be great.
	I think this is an excellent idea. By bringing in more people to look at the issues. Rather than people trying to reinvent the wheel.
	I would find this resource very valuable.
	I would welcome the creation of this database.
	Thank you, this is long overdue and an important part of nursing, research and information sharing
	Thank-you for asking!
	Think its a great idea
	This is a fabulous...and much needed...service! Thank you...I look forward to using this in the near future.

Grouping	Open-Ended Response
	This is a wonderful win for nursing and nursing research - Thank you for the opportunity to have input
	This would be advantageous to practicing nurses, nursing students, and all of the research community. It could be like the Cochran Collaborative for nursing. Sounds exciting.
<b>Not in favour of the database</b>	I don't think a network is the best use of the funds. I would prefer to see it all go directly to research.
	No
	No, other than I think this would be an assessment to my practice.
<b>Networking</b>	Great Idea - I'm looking forward to using it.
	I have research experience. I am finding it very difficult to attend pertinent workshops conferences and or networking opportunities. The database might provide better opportunities for those of us in smaller communities to participate in research initiatives
	If we are going to build capacity in BC the database will have to provide opportunities for networking that go beyond simple research interests and locations. There might be a way to incorporate future directions or areas of interest to be explored.
	It must be innovative in that it can provide information about existing networks among practitioners, policy makers and research while offering an infrastructure to facilitate the development of new networks.
	This initiative would allow us to connect some of the dots by promoting a systematic way of creating and sustaining a network.
	What upfront partnerships could be established to strengthen and inform this database? (e.g.. other organizations/networks that have already developed health services research databases and could shared their lessons learned).
	Wouldn't it be great if this could serve as a place where grad students and interested practicing nurses could also become involved in nursing research?
<b>Users / Accessibility</b>	Involve student nurses (undergraduate, graduates) in the design and implementation, make the database available to them. Students become the practitioners who can/do change practice and nursing cultures as this project seems to be seeking to do...
	It would be useful to have this as a Province wide database, that is accessible on line, with a central point for contact. Also be useful to have it available for frontline staff for their information
	Make the database accessible to health sciences students
	Recognition of nursing research to be inclusive of those researchers who further the development of discipline as well as those researchers involved in public/practice research who identify themselves as nurses.
	Would the database to be accessible to all nurses in the field as frontline nurses often have little exposure to nursing research. Needs to easy to access and search for research

Grouping	Open-Ended Response
<b>Content</b>	Explicated research in mental health and addictions by nurses.
	I strongly recommend this be broadened beyond nursing. The concept is a very good one, but I see the need for this database to include all health services research, with sections devoted to nursing, but also to health leadership topics, and to other clinical areas.
	I would want to know what is currently being done. Thus would want to be able to access by date.
	It should provide an easily accessible overview of current and past research activities in the province, as well as synthesized findings research activities that address similar topics. One approach is to invite people to develop special interest groups that address topics that are of particular relevance to the province.
	It would be helpful if a database could also include a quick access to all publicly accessible reports of health service and related population stats from various BC reports. It has been quite difficult to determine what data are held where, who controls access, and which aspects are open access.
	It would be helpful to include topics related to Nursing Informatics
	It would be helpful to segregate Canadian literature due to the distinct nature of our system. So often, policy makers reject American research because of that. It would be helpful in identifying Canadian research gaps as well.
	Perhaps a connection for those who are doing graduate studies...ability to connect with others researching related topics, a forum in which to share findings
	Perhaps a wider context and scope to include current issues on survivorship and linkages to international publications and the Cochrane Library for relevant literature review
	Recent relevant publications and current grants held would be good. Especially the funder. CVs are sometimes handy, but could be LINKS as opposed to being on the BCNRI database itself.
	Suggest making it possible to communicate ideas/ thoughts/question building in a wiki format for research ideas to be exchanged and built together. It might build an online research community
	Suggest that the areas of research includes more than very clinically focused research and covers 'soft' areas of practice as well such as education, work environments, retention, etc.
	That we need to include in health services research the concerns of front line nurses (and not just managers or health service administrators).
	What about a section for listing collaborators - i.e. for each project can they also list who is collaborating on that project with them?
	Would also be interested in numbers of nurses engaged in nursing research projects, and where they are placed in the system, e.g. front line/clinical practice, academia, administration, etc. Also want to know what research is interdisciplinary vs. purely nursing.
Would also like to see a field that would indicate whether the individual is open to mentoring, or having nurses new to research work on the project in some capacity.	

Grouping	Open-Ended Response
<b>Functionality</b>	I think the search protocol should be focused in more than one way so that various users can search based on their own focus.
	Is it feasible to link this database to international databases in English speaking countries such as the UK and Australia?
	Some way of linking with other networks/databases in related fields, including the other MJS networks
<b>Keeping the database current</b>	It will require continuous updating.
	The database, if constructed, must have a system to ensure that it is kept up-to-date.
	This is only worth the development if it is kept up to date and if there is a way to distinguish senior investigators from those who want to learn or who have minimal experience.
<b>Avoidance of duplication</b>	I would suggest canvassing the HOPNs to see what their experience is/has been re the issues in setting up and keeping researcher databases current, formats that work or don't work, how people are actually using the databases, and what gaps they've found they have. In other words, these folks can let this initiative know lessons they have learned.
	I wouldn't want to see a duplication of work. For example, regarding the question of listing abstracts, this is readily available through other databases.
	It is not entirely clear to me how this proposal might not simply duplicate other databases already in existence. I also remain concerned that as nursing researchers are further directed by funding agencies to provide interdisciplinary research efforts that maintaining a nursing researcher database only may fail to recognize the necessary interdisciplinary capacity that requires development. Interdisciplinary considerations of the database may be required.
	Often work is underway that we are not aware of and this would facilitate building on others work rather than duplicating it.
	What would be the difference between such a database and CINHALL or MEDLINE for example?
	Currently, in the North East, the North East Research Advisory committee is developing a health research database.
	<b>Other</b>
I think nursing health services should include a network for nursing education - although not directly involved in health care delivery we are preparing the nurses of the future to practice in an evolving health care system. I think that educators and students should have a voice/be participants in this process	
Newsletter that would outline current research abstracts for general interest.	

#### 4. Environmental Scan of Health of Population Networks Databases

The Michael Smith Foundation for Health Research's Networking Infrastructure Program links researchers and research resources, in order to build critical mass across health research applications, institutions, organizations and regions. A part of this program, the Health of Population Networks, focuses on networks of researchers who share a common interest in the health of specific populations within the BC community.

One of the capacity-building activities undertaken by all of the eight networks was the creation of research databases. Given that these databases shared similar aims to those of the proposed nursing research database, and that the Health of Population Networks had already gone through the learning curve of creating them, it was decided that a review of the databases, along with the corresponding needs assessments and decision-making processes, could form a useful part of the nursing research database planning.

The databases were looked at for content and functionality, and, following this, telephone interviews were conducted with people involved in the database creation process. Five of the eight Health of Population Networks were available for interview.

Seven of the networks had fully operational databases at the time of the environmental scan, with some of the networks having more than one database and one network with a database in the development stage. The table below gives a summary of the types of databases, their function, and intended audiences, for each of the networks.

Network Interest Area	Included in Databases					Intended Audience		
	Members	Research Projects	Journal Abstracts	Grey Literature	Health Data	Network Members	Community Members	Researchers
Aboriginal (2 databases)	✓		✓	✓		✓	✓	✓
Aging (2 databases)	✓	✓				✓	✓	✓
Child and Youth	✓					✓	✓	✓
Disabilities	<i>in development</i>							
Environmental/ Occupational	✓	✓		✓		✓		✓
Mental Health and Addictions		✓				✓		✓
Rural and Remote	✓					✓	✓	✓
Women's Health (3 databases)	✓			✓	✓	✓	✓	✓

The networks developed their databases independently, but in some cases consulted with each other so that the databases would have a similar look and similar fields. Most networks have members databases, but these are not linked to each other; however, several networks used the same developer, and in this way were able to build on 'lessons learned' and reduce some duplication of effort. The Mental Health and Addictions Network was the first to create a members database, and others were able to use this design as a starting point.

The interviews with the Health of Population Networks asked how they decided what type of databases to create (members, publications, grey literature, etc.), what particular problems and successes they encountered, and what other information or suggestions they would you have for anyone interested in developing a similar database.

## **4.1 Network Environments for Aboriginal Research BC (NEARBC)**

NEARBC has two databases:

- Abstracts database (Peer-reviewed journals and grey literature)
- Members database

### **4.1.1 Abstracts Database**

The decision for NEARBC to have an abstracts database came out of community consultations. Health professionals and community members wanted access to the University of Victoria library; however, the library was not in a position to issue netlink ID's to communities. As a result, the e-library was established with the assistance of a University of Victoria librarian. Community members and health professionals also wanted access to aboriginal health research abstracts. After consultation with community partners, the abstract database was initiated with the assistance of a small grant. The database would serve those in smaller and remote communities who do not have a library (or access to a University one), as well as those who would like a better understanding of what researchers do so that they can be in a better position to assist in defining research questions (or to know that certain ones have already been investigated).

The reason for creating a separate abstracts database rather than simply directing people to PubMed or MedLine is that the database is much more user-friendly: people unfamiliar with PubMed or MedLine might find these difficult to use (many community members on health boards are not health professionals). The abstract database allows users to see all the abstracts for a given topic area.

The network proceeded to consult further with community partners, and came up with eight health areas that people were most interested in. It was later decided to include grey literature in the database, as there are many papers from aboriginal and other graduates whose work was never peer-reviewed but includes research that is valuable to the aboriginal community. The peer-reviewed articles are currently from all of North America (as many health areas cross borders).

The key to the development and "buy-in" from stakeholders and users of this database was inclusiveness: if people are part of the process, they will be more engaged. The database is valuable not just for researchers but for nurses, student nurses, faculties, and others. NEARBC, in collaboration with the National NEAHR, is applying for a knowledge translation grant from CIHR with the view making the database national. The network is also in discussions to review the database and include international peer-reviewed articles. The eventual aim is to make the database global, as countries such as Australia and New Zealand share similar issues.

The database is populated and maintained through the work of a librarian, as directed by the Network.

#### **4.1.2 Members Database**

NEARBC did not survey its members specifically on what they would like in the members database, but asked broader questions such as 'what would you like to see the network do?' Suggestions included training, a forum, an e-newsletter and a members searchable database. All four of these suggestions were implemented.

From seeing other networks' members databases, NEARBC realized this might be a valuable resource. Because of the lack of use of the forum, they did not want to make the database private (with passwords, etc.) as this might ultimately discourage people from using it.

The database is not limited to researchers, as one of the aims of NEARBC is to include all interested parties. The membership breakdown by primary occupation for NEARBC is: 32% Policy Makers/Administrators, 30% researchers, 21% Trainees and 17% Service Providers (i.e., community organizations, community members, etc.)

## ***4.2 BC Network for Aging Research (BCNAR)***

BCNAR has two databases:

- Publications database (peer-reviewed literature)
- Members database

#### **4.2.1 Publications Database**

The BCNAR publications database is aging-specific, and limited to peer-reviewed publications by BC researchers. The Gerontology Research Centre already had a library of publications in Reference Manager, so the database was the next logical step from this. The data could easily be uploaded from this system, and so it formed the basis of the database. As the majority of BCNAR members are academics, the focus has been on peer-reviewed literature only; the opportunity exists to revisit

and include a grey literature section, but there has not been a great deal of interest in this (although there has not yet been time or available resources to canvass all members).

#### **4.2.2 Members Database**

The members database is open to anyone interested in aging research. The idea for this database came out of town hall meetings and the original network plan. Besides listing the contact information for members, the database also shows which members are interested in being mentors.

### **4.3 BC Child and Youth Health Research Network (CYHRNet)**

The BC Child and Youth Health Research Network has one database:

- Members database

The BC Child and Youth Health Research Network database coordinator was unavailable for interview at the time of this report due to scheduling constraints.

From the website: "CYHRNet members include researchers, research trainees, health care workers, community workers, as well as representatives of the BC Health Authorities and from the Ministries of Children and Family Development and Health. The goal of this database is to support collaboration and the translation of research into practice by bringing together those involved in child and youth health in BC."

### **4.4 Disabilities Health Research Network (DHRN)**

DHRN's databases are currently under development. Two are planned:

- Members database – under development
- Literature database – under development

The Disabilities Health Research Network database is still under development. There is currently a "Join Us" form on their website, but a searchable members database has not yet been launched. A literature database is also planned: a September 2008 request for papers contained the following information:

"In promoting interim communication and collaboration between researchers, Disabilities Health Research Network intends to make a database of its members' most recent publications (peer reviewed publications and publications or literature developed for education purpose), accepted grants, awards and conferences they attend. We will seek to utilize this information to highlight your work and issue awareness about your work in DHRN magazine, newsletter and website."

## **4.5 BC Environmental and Occupational Health Research Network (BCEOHRN)**

BCEOHRN has one database:

- Members, Projects, and Grey Literature database

### **4.5.1 Members, Projects, and Grey Literature Database**

The BCEOHRN database is unique in that it serves three distinct topic areas that are combined in functionality. Users can search by network member, research projects, or grey literature, and the data for these are linked: e.g., if a user searches on a researcher name, they can then view the researcher's projects and publications.

The scientific director of this network, who is a researcher, identified a database as being the one tool that could most benefit researchers. The design of the database was based on her vision, as well as on discussions with the board of directors (the network follows a non-profit model) and a working group. The reason for excluding peer-reviewed literature is that this is available through other mechanisms such as PubMed (a link to PubMed is available on the BCEOHRN database page for this purpose).

Network membership is not open to anyone, only those affiliated with research. The focus of the database is strictly research, and the aim is to link people: students can find mentors, policy-makers can find academics, researchers can find students to work, etc.

One staff member maintains the database. This person adds in all new members, updates existing ones, and proactively contacts members for revised CVs, any new grey literature, etc.

The main suggestions for those developing such a database are to have fixed deadlines in the contract with the database developer, and, if possible, to have a developer on your team to 'translate' any technical questions or issues. Another strong recommendation is that of ensuring dedicated human resources are allocated to keep the data in a database current.

## **4.6 BC Mental Health and Addictions Research Network**

BC Mental Health and Addictions Research Network has one database – a researcher database – which also includes information on the researchers' projects funded by CIHR, NSERC, SSHRC, and MSFHR.

### **4.6.1 Researcher Database**

The BC Mental Health and Addictions Research Network database serves two functions: it provides information on researchers and on their current research projects. The two types of data are linked,

so that if a user searches for information on a researcher, they will not only find contact information, personal webpage, research areas and institutional affiliation, but will also find the researcher's current projects. The user can then drill down to read about the project in more detail. Fields such as researcher name, university, funding organization, research areas and keywords are all searchable.

The network consulted with a planning committee to determine what kind of database would be most useful. They decided that a researcher database would help to identify researchers with different skill sets and interests and support networking and collaboration. The decision was made not to pursue a publications database as in such a large field of study, it would take a great deal of time and resources to populate such a database.

The researcher database includes BC researchers only. It has been particularly helpful for trainees who are looking to work with someone in a particular area of research. Users can export an Excel file of researchers' contact information. They can also use the database to find groups of researchers – e.g., searching by topic keywords to invite people to colloquia. Similarly, network staff can send out targeted announcements to researchers regarding specific events and funding opportunities.

The database was initially populated using environmental scans of funded research in mental health and addictions, that had been conducted by MSFHR and the Centre for Addictions Research of BC. A network employee then created individual researcher records using internet searchers (e.g., Google, university department websites). To add new projects to the database, a network employee scans funding announcements (e.g. CIHR, SSHRC, MSFHR) for mental health and addictions projects. A program has recently been implemented that alerts the researcher once their record is 18 months old, so that they can notify the database coordinator of any changes that need to be made.

After the database developer created the database, other networks were able to benefit by using the same template.

#### ***4.7 BC Rural and Remote Health Research Network (BCRRHRN)***

BCRRHRN has one database: a members database.

Membership consists of researchers, trainees, nurses, educators, not-for-profit organizations, members of government, and other interested parties.

The Rural and Remote Network database coordinator was unavailable for interview at the time of this report due to scheduling constraints.

#### ***4.8 Women's Health Research Network (WHRN)***

The Women's Health Research Network (WHRN) has three databases:

- The Source (women's health data)
- The Survey (grey literature)
- Members database

The Source and The Survey were developed first, and the members' database was launched in December 2008.

#### **4.8.1 The Source: Women's Health Data**

The purpose of The Source is "to assist researchers, policy makers, health planners, and students identify sources of health data for women and girls in British Columbia and elsewhere." Users can search for summary information on health status, health determinants, and health services. This database was modelled on a similar one in Australia, which also provides a hub for information on women's health surveillance.

#### **4.8.2 The Survey: Women's Health Documents (Grey Literature)**

The survey is a searchable database of grey literature, with links to the articles.

Both The Source and The Survey were developed from one of the WHRN's original research clusters (Women's Health Surveillance), led by one of the WHRN's founding Co-Leaders. The idea behind The Survey was to provide a portal into literature that is otherwise difficult to find. Its content is international.

The database is populated by the work of database assistants, and the maintenance is continuous.

#### **4.8.3 Members database**

The members database is predominantly for users in BC. WHRN has about 700 members, of which about 70% are established researchers: about 20% are emerging researchers, trainees, and students, and the rest are policy makers, clinicians, health practitioners, and members at large. The goal of the members' database is to provide basic information to help connect researchers, mentors, and collaborators on projects, as well as being a resource for media when they are searching for experts in specific topic areas. Rather than recreating researchers' entire bios, there is a link to their website or common CV; in addition to this is a field called 'Researcher Notes' where they can state whether they are interested in working in a particular area or project.

What proved helpful in developing this database was to build as much as possible from already created models (in this case, other Health of Population Networks) and not to "reinvent the wheel." Using a developer who had already done some work for the network was also useful.

#### **4.9 Summary of Networks' Recommendations**

The main suggestions for those interested in developing similar databases are as follows:

- Involvement of all stakeholders and potential users is crucial. The more involved people are in the needs assessment and planning stages, the more "buy-in" you will have.
- When scoping out the technical development of the database, it is important to have milestones and deadlines in the contract so that the developers stay to schedule. It is also helpful to have a developer on your team who can translate technical questions.
- It is helpful to build as much as possible from already developed models and not "reinvent the wheel." Using a developer who has experience working in very similar projects is also beneficial.

## 5. Recommendations and Next Steps

The survey provided a well-distributed sample across respondents' job categories and geographic locations, and thus the survey results data can be seen to be reliable in terms of representation from different user groups. What became apparent from the survey results is that the potential database users are interested in a database that fulfils several purposes. There was a fairly even distribution across respondents' purposes for using such a database, and across the types of information it should contain. On average, each user would want the database to serve more than two functions.

The scan of the databases created by the MSFHR Health of Population Networks provided useful information on decision-making vis-à-vis database content and target audiences, and explained why certain database functions were best suited to each network's needs. The interviewees were willing to share the knowledge they had gained from the needs assessment and database creation processes. Given that most of the networks' databases have already been in operation for some time, further potential exists to learn from their lessons and experiences in developing, launching, and maintaining the databases. This will not only provide a starting point based on useful information for the nursing research database development, but will reduce duplication of effort.

The main decision for the nursing research database working group will be that of database content: specifically, should the database include members, current research projects, research results, funding information, peer-reviewed articles, and/or grey literature? The survey results provide a good basis for decision-making, and additionally, considerations of the open-ended responses must be included when examining the results as they provide further ideas on database content and user groups, as well as concerns about duplication of efforts.

Given the survey respondents' emphasis on this latter point, an important next step for the nursing research database working group is to widen the environmental scan of similar databases to see if there are any already in existence that meet the nursing research database goals. There may be potential for shared resources, linkages, or building on an existing model. This also includes looking in more detail at the Health of Population Networks' databases for a usable model, or to clarify what modifications would need to be made to any of the existing models. Given that the survey respondents were interested in a multi-functional database, the BC Environmental and Occupational Health Research database, which contains linked data on members, research projects, and grey literature, might be the best starting point.

The technical implications of designing the database will be driven by its content, as will decisions on how the database will be populated and kept up to date. Again, there is useful information from the Health of Population Networks on different ways these can be managed; further discussion with the networks' database administrators will be helpful, to build on their knowledge and experience.

As several of the Networks emphasized the importance of engaging the stakeholders, the working group may wish to look at finding ways of doing this throughout the database scoping process. This might involve including more members in the working group, holding focus group discussions, pilot

testing with potential users, and/or keeping people up to date via the MSFHR website or a web-based forum.

In summary, the needs assessment survey suggests that a nursing health services research database will be an extremely beneficial tool to the nursing research community, as there is interest across potential user groups and most survey respondents envisioned several uses for such a database. The challenge will be in choosing the content to best meet user needs and to have the database offer as much functionality as possible in order to address multiple aims.



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