

BC Environmental and Occupational Health Research Network

Implementation Plan

November 2004

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1 Vision, Mission Statement, Summary

This proposal outlines a plan to develop an Environmental and Occupational Health (EOH) Research Network that will assist British Columbia (BC) in becoming a leader in Canadian and international research. The network will encourage a new model of province wide collaboration and communication that will help generate groundbreaking knowledge that can be used to develop policies and practices to protect human health.

This proposal is built on ideas and experience provided by BC's EOH researchers and research users on how a network can develop capacity and create a critical mass of resources and expertise that will increase BC's competitiveness for national and international funding to do ground breaking research.

1.1 Vision

Our vision is to create a network to help BC researchers develop innovative teams that will conduct world-class research intended to improve the health of people affected by occupational and environmental risks, and to communicate with communities in such a way that research results are used to effect change.

We envision a truly provincial network that creates new efficiencies, partnerships and opportunities that will make BC a magnet for training, attracting and retaining top quality researchers.

The Environmental and Occupational Health Research Network will improve access to ideas, information and infrastructure needed to create innovative collaborative research on how human health is affected by interactions with the world around us.

1.2 Mission Statement

The Environmental and Occupational Health Network recognizes the diversity of needs, locations, expertise and topics relevant to its potential membership. The network will aim to remove obstacles that arise from this diversity by increasing knowledge within the research community of common resources, common questions and shared opportunities. It will help researchers and research users navigate the EOH community in BC so as to ensure efficient access to information and capabilities. The network will assist in attracting and maintaining a vibrant research community in BC by supporting training, research development and communications.

The principal missions of the EOH Network will therefore, be:

1. To facilitate collaborative research directed towards key occupational and environmental health risks confronting British Columbians so as to help in understanding, managing and preventing those risks.
2. To enable BC researchers to address environmental and occupational health research needs by better knowledge of the capacity, expertise and opportunities existing in the province
3. To help BC researchers become or remain nationally and internationally competitive in acquiring research funding by helping them create new, innovative and efficient collaborative research teams and projects
4. To encourage research careers in EOH by supporting students
5. To help ensure that research results are put to use in BC and elsewhere by facilitating knowledge transfer to communities and policy makers.

Achieving our vision and mission requires

- Meaningful involvement of researchers throughout the province in regional, provincial, national and international EOH research.
- Collaborations and communications across regions and institutions, and with policy

makers, research users, and community members to maximize research efficiency and to ensure research results are used to effect change.

- A well-connected community of students and researchers who are supported through all stages of their careers with training based on their needs.

1.3 Summary of Network Infrastructure Implementation Plan

The principal tasks for the first year of the network will be:

1. To market the network to recruit active members
2. To engage the membership in the process of approving the final operational plan of the network including criteria for and selection of executive committee members and the scientific and executive directors, and criteria for future allocation of funds including research development and student support
3. To initiate an inventory of expertise and infrastructure within the network

The current task force, supplemented with student representatives, will be asked to serve as an interim executive committee until a final committee can be selected at the inaugural meeting of the network in the fall of 2005. The task force would help to select interim executive and scientific directors. Nominees for the scientific director and a full-time executive director will be submitted to the membership for approval at the inaugural network meeting.

We anticipate the emphasis of the network will shift near the end of the first year from development to full implementation. The first network meeting will allow members to be fully engaged in developing or approving the details of terms of reference for the network administration and operation. We also plan to begin allocating research and student support before the end of the first fiscal year on a pilot scale, with full-scale programs near the end of year 2.

The second year will see full implementation of the network's plan with a full complement of head office and regional staff and a well-organized system for communication within and between regions and networks. A significant part of year four will be a critical internal review of the network to determine if the vision and mission is being met and to identify mechanisms to improve the performance of the network. This will also be a time to re-assess how the EOH network relates to and interacts with other MSFHR networks and to develop extension strategies to recruit potential network members who have yet to use the network's services.

2 Proposed Networking Scope

2.1 Network Management

The management of the network is designed to represent an array of interests: individual researchers from the many institutions and regions across the province; students who are training to become environmental and occupational health researchers; and research user organizations, including governments, non-governmental organizations, employer associations, and employee associations. The structure is meant to make decision-making collective and transparent, and to foster participation from throughout the network membership. The structure of the network is summarized overleaf.

Membership

Membership in the network will be open to researchers, students, and research user organizations. Researchers and students will be "individual" members without regard to their research institution. Research user organizations will designate "representatives" to serve as members of the network. In our statement of purpose, potential members will be made aware that the network is intended to enhance the generation and use of EOH research and that it does not serve to establish provincial or federal funding priorities, or serve as an advocacy group for any particular EOH issue. In this way we hope to attract those actively involved in the

objective generation and use of EOH research.

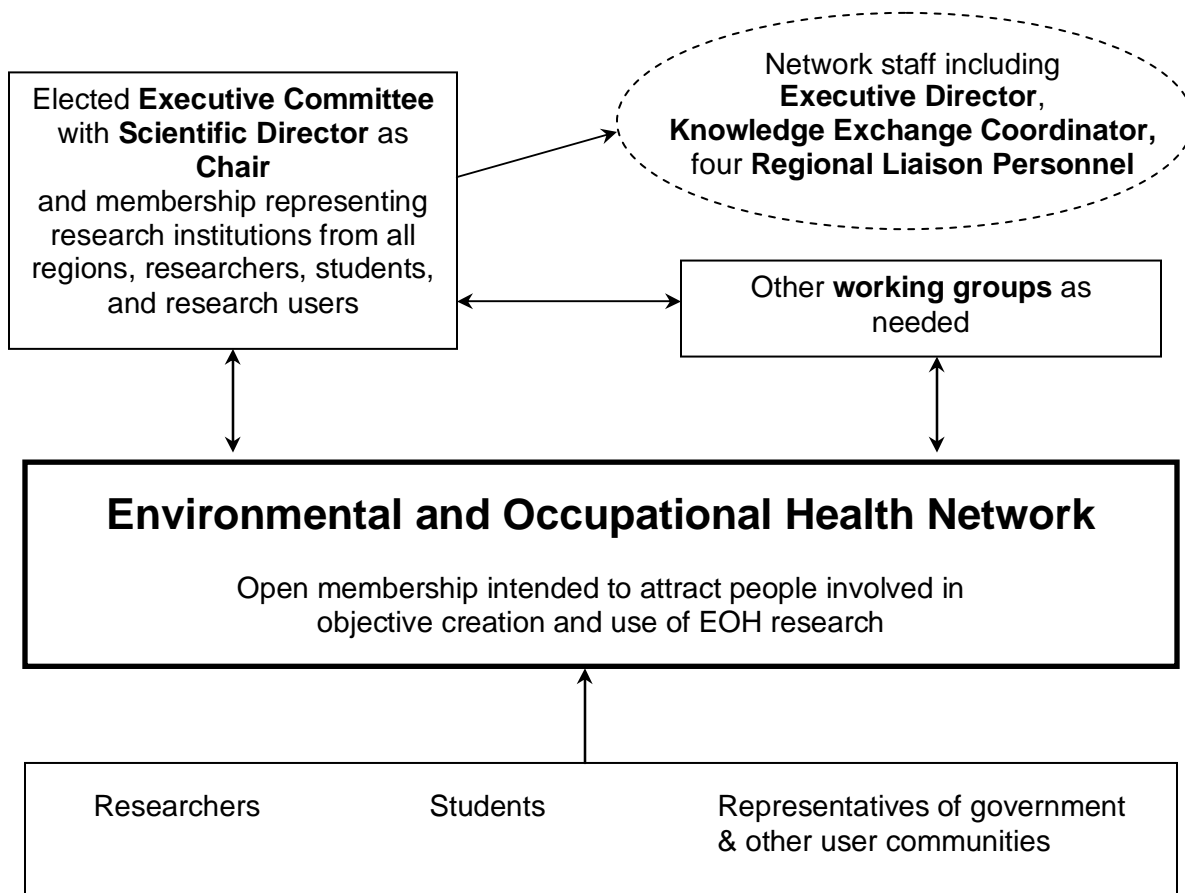


Figure 1. Organizational Structure of the Network

We will not have a membership selection committee, instead we will see how the membership evolves in the initial years before considering the need for more specific membership criteria.

A preliminary list of over 150 potential network members was drawn up during the consultation phase of development of this proposal. It includes people from all three groups named above, from many regions of the province, and from many of BC's universities and research organizations. The list is included as appendix 4.2.

Network researchers already belong to a number of research centres and strategic research training programs involved in occupational and environmental health research and already receiving infrastructure funding from the Michael Smith Foundation, the Canadian institutes for Health Research, and the Canadian Health Services Research Foundation, including the following

- Research Centres
 - the Cancer Control Research Unit,
 - the Centre for Coastal Health,
 - the Centre for Health and Environment Research,
 - the Centre for Healthcare Innovation and Improvement,
 - the Centre for Health Services and Policy Research,
 - the Institute of Health Promotion Research,
 - the Centre for Clinical Epidemiology and Evaluation
 - the Canadian Institute for Climate Studies
 - Coasts Under Stress
- Strategic Training Programs

- The Bridge Program (bridging public health, engineering and policy research)
- Partners in Community Health Research
- Western Regional Training Centre for Health Services Research

The EOH network will serve as a mechanism for linking the research and personnel (researchers, students, and research users) associated with these centres and programs.

Executive Committee

Currently, the Task Force assembled by MSFHR and the Co-chairs of the Task Force “nominated” in the initial meeting of the Task Force have served as an executive committee pro tem. The Task Force has 10 members, 7 are researchers and 3 are representatives of the research user community, all from government agencies. The Co-chairs are all researchers, and are from greater Vancouver (UBC), Vancouver Island (Centre for Coastal Health), and the north (UNBC).

The ultimate goal is to have an executive committee elected from and by the network members, one that includes

- 6 members from the research community, representing different institutions and therefore regions,
- 3 members from the student community, and
- 3 members from the research user community.

The exact structure of the committee would be approved by a vote of the membership. The aim of the above structure is to represent a range of research institutions/centres from all regions of the province, as well as giving weight to the student members and to research user organizations.

The executive committee will have overall responsibility for managing the network and will meet once every quarter. The executive committee will help to develop network priorities based on feedback from the membership and will serve to resolve conflicts that arise within the network membership as a whole regarding network priorities and operations. In consultation with the MSFHR, the committee will select a **scientific director** of the network from the research community, who will serve as Chair.

The committee will hire a full-time **executive director** who will work with the committee and the network membership and be responsible for the development and day-to-day operation of the network.

Working groups of network members will be set up on an as needed basis to facilitate full implementation of specific network tasks or to provide advice to the executive. For example a communications and education group may be needed to direct knowledge transfer and exchange, training, or organization of meetings.

The network’s executive will work closely with the scientific directors of the seven other MSFHR networks to maximize potential for cooperation and to reduce redundancies. As the network matures, opportunities for similar strategic, synergist relationships with networks outside of BC will be fostered either by an increasing national and international liaison role for the scientific director and/or opportunities identified by network members on a project-by-project basis. As an example, we plan to continue to build on the relations developed during the grant development phase with Réseau de recherche en santé et en sécurité du travail du Québec.

Scientific Director

The director will be the public face of the network, will chair the executive committee, and will provide leadership to and guide management of the network between meetings. The scientific director will liaise with the directors of the other seven networks funded by the Michael Smith Foundation for Health Research and other similar networks to ensure strategic planning that maximizes opportunities for synergy within the province, nationally and internationally. The scientific director will be based wherever their current appointment is and will receive one day of

course release per week (or equivalent) to allow them to fulfill their network duties. As the Chair of the executive committee, the Scientific Director will serve as an arbitrator for issues within the committee requiring conflict resolution. Where the Scientific Director is unable to resolve such conflicts, a special sub-committee of members will be struck to consider the issue.

The network's scientific director will have a demonstrated capacity for research in environmental and occupational health, good organizational skills, good communication skills, a history of collaboration in BC research, and good links to research users.

Executive Director

The executive committee and scientific director will have the support of a full-time executive director. The executive director will be responsible for the development and operation of the network and ensuring that its vision and mission are realized. Specific responsibilities of the executive director will include:

- Network management
 - Managing and interacting with network staff including knowledge exchange and regional liaison personnel
 - Keeping records and reporting to the network members, committees, MSFHR and other interested parties
 - Organizing executive committee meetings
 - Managing the network's budget in conjunction with the scientific director and executive committee
- Communications and training coordination
 - Organization of training events
 - Organization of network members' meetings
 - Developing linkages with outside organizations such as policy makers at the municipal, provincial and federal level
 - Development and maintenance of the network's website
- Gathering information to help identify needs and priorities
 - Overseeing the compilation of the network's inventory of expertise and assuring it is kept up to date
 - Developing and maintaining mechanisms for communication to disseminate regional, national and international information to the network committees and members
 - Under the leadership of the scientific director, help network members reach consensus on executive committee and network priorities
- Liaising with the other seven networks, with similar networks in other jurisdictions in Canada and elsewhere, and with MSFHR on operational matters

The executive director will be energetic, creative and adaptable, will have excellent administrative, organizational and communication skills and will have familiarity with management of research organizations.

Knowledge Exchange Coordinator

A knowledge exchange coordinator will be hired to start in the second year of the network to coordinate the Network's interactions with the media, the community, and research users. This will include liaison with stakeholders to communicate research results, writing news releases and media communication notes, writing articles for magazines and newsletters, creating study websites, preparation of knowledge transfer sections of research grants, and helping with the preparation of non-technical reports of scientific research produced by the network.

The Coordinator will encourage a greater understanding of knowledge transfer and exchange and increase the network's level of knowledge of how to go about this through development of educational material for network members. This position will serve as a resource for network

members on issues of knowledge transfer.

Regional Liaison Personnel

To facilitate the work of network members and executive committee members from the dispersed regions of BC, the network will hire part-time staff in each of the following regions as regional liaison personnel: Northern BC; the Okanagan; Vancouver Island; and the Lower Mainland. They will interact regularly with network members in their area to develop a dynamic inventory of information about and from network members including

- research interests and expertise,
- equipment, lab facilities, data and other resources that network members can access,
- training needs,
- ideas about strategic orientation for research in environmental and occupational health,
- opportunities for research collaboration between researchers or between researchers and research users,
- research priorities from research users, and
- completed research that needs to be communicated.

The regional liaison personnel will ensure that EOH researchers and research users in their community feel they are active and equal members of the network by facilitating communications within and between regions.

The regional liaisons will interact regularly with the executive committee, the scientific director, the executive director and the knowledge exchange coordinator to facilitate new collaborations and develop contacts with the community, media, and policy makers in their area. In addition, they will meet with regional personnel from the other networks and the MSFHR, to look for cross-sectoral opportunities within regions. The time commitment to these positions will vary between regions and is expected to evolve over time. Initial efforts to develop the database and liaison activities will likely be greater than required later to maintain local contacts. We plan to divide 1 to 1.5 FTE to these tasks between the regions.

2.2 Accountability

The knowledge exchange coordinator and regional liaison personnel will report to the executive director. The executive director will report to the scientific director and the executive committee. The executive committee and scientific director will be accountable to the network, since members will elect them. The network will report on an annual basis to the Michael Smith Foundation for Health Research.

The University of Northern British Columbia has agreed to manage initial funds allocated to the Network. The executive director will have to establish a UNBC contact to make sure all financial transactions are conducted in accordance with university policy.

2.3 Networking and Partnerships

Because environmental and occupational health is such a broad area of research encompassing researchers from many different disciplines, we will employ several methods for linking this diverse group into a cohesive network working towards shared goals. Our aim is to build a network that resembles a web with information traveling through all the strands rather than a hierarchy where information trickles from the top down.

Goal 1: Increase awareness within the BC EOH community of the capacities and activities of network members

It is possible that many EOH researchers, even those working in the same university, may not know each other. The EOH network will give researchers and research users the opportunity to get to know each other and form research collaborations. Regional liaisons will develop locally relevant and locally desired ways for people to meet. Liaison personnel in the North, Lower Mainland, Okanagan and Vancouver Island will be responsible for developing and updating an

inventory of researchers and research users in their area. Potential new members identified in this way or identified by existing network members, will then be invited to local and provincial meetings of the network, to ensure that the network is and remains inclusive.

On a provincial level, **electronic communications** through a network website, a listserve, and an e-newsletter will be used to link members and regions. These would distribute

- research agency news to alert members to funding possibilities,
- profiles of network members and their research outputs,
- information about research needs of research users as a means of publicizing research opportunities with direct policy/user relevance, and
- information about research initiatives both ongoing and planned as a means of making students aware of thesis opportunities, research users aware of research of potential value to their organizational members, and other researchers aware of potential opportunities for collaboration.

The **membership database** will be made available to members to locate expertise, equipment, laboratories, and data resources. Examples of resources that would be of use to the whole community are the Living Lab at BCIT and the initiative at UBC to link occupational and environmental exposure data to the BC Linked Health Database: the Population Health and Learning Observatory.

Goal 2: Provide regular opportunities for face-to-face information exchange

In addition to electronic communications, an **annual joint scientific and administrative meeting** of the network membership will be held. This meeting might be held in conjunction with a proposed annual BC health research conference where all networks might assemble to allow cross-sectoral exchange. The meetings will combine educational opportunities on issues relevant to a wide array of network members (such as shared methodological approaches, interdisciplinary methods, or mentoring workshops) with opportunities for members to become more fully engaged in developing network priorities through votes on key issues and participation in network working groups and committees.

Goal 3: Support efforts to develop collaborative, multi-institutional research projects

Network members, through meetings and interaction with regional liaisons, will help the executive committee identify key research needs and opportunities that can be communicated to all network members. The idea here is to introduce researchers with similar or complementary interests to each other to maximize the potential for collaborations and national funding. Linking research users to researchers with similar interests may facilitate access to research populations.

In addition, the network will provide a number of research development grants to help members develop full research proposals. Initial criteria for provision of these grants will be determined by the interim executive committee with ratification at the inaugural meeting, but are expected to include features such as collaboration between investigators from multiple BC institutions, development of new training opportunities and/or creation of new research capacities in BC. We anticipate requests for support ranging from \$2,000-\$10,000 for such expenses as meetings of investigators from different regions, grant writing, and small scale pilot work.

2.4 Training Support

Attracting new EOH researchers and developing and maintaining new collaborative research will benefit from an ongoing education and training program targeting both students and established researchers. Because of the reliance of EOH researchers on community participants, educational efforts will also be directed towards non-academic partners.

Workshops

Annual surveys of the network membership will identify the most immediate topics for training

workshops that are of interest to the widest array of network members. These workshops will be organized regularly to meet the needs of faculty, students, research users and community. As the network membership represents such a broad spectrum of experience it is likely that suitable trainers can be found from within the network for some training needs. For example, some of the network members have significant expertise in carrying out research with the participation and involvement of local communities for the betterment of research and knowledge transfer and exchange. These network members would make ideal trainers for network workshops on knowledge transfer, exchange, and communication, an area that was identified as one that network members would like more training in. Using trainers from within the network itself increases the likelihood that training will be tailored to the participants needs, the flow of information through the network, and the perceived value of the network to the membership.

Mentor Training

One of the barriers to the career progression of young researchers is the lack of mentoring available to them. For this reason, the network will develop a mentor-training program to help senior researchers develop their mentoring skills.

Student Training

The network website will act as a clearinghouse for student research opportunities, internships, and practical placements. Students interested in postgraduate research in environmental and occupational health could also use the network's website to identify a suitable placement. These opportunities could also be advertised for the network's research users to assist with funding.

A limited number (~ 5 per year) of student fellowships of \$20,000 per year will be made available on a competitive basis for post-graduate training opportunities with network members. Priority will be given to projects that provide for academically rigorous training that exposes students to significant opportunities to work with non-academic partners. Students will be actively encouraged to take part in network meetings and workshops.

As evidence of the importance of students to the network, seats on the executive committee have been reserved for student representatives.

Promoting Cross Disciplinary Research

In order to foster collaboration and cross-disciplinary training, the network will support faculty and students in gaining a better understanding of the various research fields that make up the network's membership. To this end, the network will organize short courses in cross-disciplinary topics.

Training the Community

The need to develop the public's understanding of the importance of research was identified as an important training need. To this end it is intended that the regional liaisons will work in their areas, with the help of the knowledge exchange coordinator, to feed research stories to the local media.

Researchers will endeavor to communicate efficiently and effectively with their research participants so that the participants can understand the cycle of research from problem identification, through to implementation of a change in practice.

A longer-term goal for the network will be to provide training for policy makers and research users in the effective use of research results, as this was identified as an important target for the network. The Canadian Health Services Foundation model (http://www.chsrf.ca/extra/index_e.php) will be one that the network examines as an example of what could be done to train health research users as this phase of the network develops in the latter half of our initial mandate.

Travel Costs

Travel costs were identified as a barrier to network members and especially to students who might like to attend training events. For this reason, the network will have a two-pronged approach: using video conferencing where possible, and providing travel grants for those traveling long distances.

2.5 Knowledge Exchange

Knowledge transfer and exchange (KTE) is a process by which research information is made available and accessible for practice, planning, and policy-making through interactive engagement with audiences before, during, and after research is carried out. Researchers in environmental and occupational health are aware of the importance of effective KTE in allowing research to create change in practice and policy. The EOH network considers KTE to be a two-way street with the research community being both recipients and providers of information and knowledge to network and community members.

KTE was seen as a priority for many researchers consulted in the development phase of the network, hence the creation of a full-time staff member charged with coordinating KTE within the network and assisting members with KTE with those who need to know research results to improve health. The coordinator's role is described in section 2.1 above. The coordinator will be network resource who can provide advice to members on effective ways to transmit knowledge to users as well as help link disparate information from members into a single coherent message. A key role for regional liaisons will be to develop strong local links with researchers, research users, and the community in their area to ensure network knowledge on methods or resources makes its way to local researchers while research results generated locally are widely disseminated to research users throughout the province and beyond.

Our goal will be to help remove obstacles to fully engaging all research team members in all phases of research from problem identification, to research, through to intervention and evaluation. One mechanism to reach this goal is the communication network described in Goals 1 and 2 in section 2.3. Another will be provision of research planning funds as described in Goal 3 in the same section.

The inclusion of policy makers and other research users on the executive committee and the network membership, as explained in section 1 above, will help to ensure that the network's research is aligned with priority areas for the health of British Columbians.

Economic return on investment

The network will realize a return on its investment by supporting researchers who will create teams and proposals with a high likelihood of success. The network will also increase the members' capacity for knowledge transfer, which is a priority area for national funders of health research. The network will realize further returns by investing in students. By providing students valuable training experiences as well as to integrating them into the broad BC research community early in their career, we hope to encourage them to remain active researchers in the province who will continue to build research capacity.

The province will realize returns on investments through more efficient use of provincial research resources, by making members aware of each other's resources and allowing sharing and distribution of these resources.

In addition, the very nature of EOH research is prevention, an approach that has been shown time and again to be cost-effective. In a recent example, the Occupational Health and Safety Agency for Healthcare in BC was to save health care providers over \$50 million by installing ceiling lifts to move patients and thus reducing back injuries in health care workers. The network's goal of helping to speed the regular dissemination of research results to decision makers will more rapidly reduce exposure to environmental or workplace hazards and therefore more rapidly reduce illness, absenteeism and the associated burden of costs.

2.6 Shared Infrastructure

The Environmental and Occupational Health Network hopes to work closely with the other seven networks to be funded by the MSFHR. There may be opportunities for shared resources such as persons with expertise in media relations and communications, web design, and grant writing. It may also make sense for the networks to share space and databases. There may also be opportunities for shared access to populations for health studies; this is especially true in remote areas where there is a finite number of communities to study.

We are interested in contributing to an annual scientific conference on health research in BC attended by members of all provincial

- research networks,
- research centres, and
- strategic research training programs

to promote exchange of ideas across all health research sectors. A similar conference is held annually in Quebec (ACFAS: Association francophone pour le savoir), and seems to have been a vital avenue for showcasing provincial research.

3 Budget

3.1 Budget

3.2 Justification for the Requested Funding

Human resources

A clear message common to all consultations leading up to this proposal was that, if the network was to be a success, then we must allocate sufficient funds to make the success of the network someone's full time job. We have budgeted for two full-time staff. Starting in the first year, we wish to attract a high caliber executive director by offering \$78,000 (including benefits) per year.

Anticipated delays in recruiting and selecting the interim executive director and regional liaisons have resulted in us budgeting only for 12 months salary in year 1. We have also delayed hiring our knowledge transfer coordinator until year 2 when this position (\$55,000/yr including benefits) will come on staff and play an active role in meeting key network goals.

The time required for regional liaisons will be modified each year as we get a better sense of how much time each person must allocate to this position. We expect that the Lower Mainland liaison, with a larger constituency, may require more time than the Okanagan representative. However, we believe that in the first 1-2 years when region networks are being developed, each liaison will require at least 1 day per week. Specific rates for these services may vary based on the position the person holds elsewhere (e.g., some institutions may wish to supplement some of these costs as these services may benefit them). We will strive for equity in pay for services however. We are budgeting for \$12,000 to \$15000 per year with some consideration of inflation.

Travel

British Columbia is a large province with distances that can serve as an obstacle to participation. We received a clear message from EOH researchers in our consultations that efforts must be taken to ensure participation of members outside of the Lower Mainland. We have, therefore, budgeted sufficient funds to ensure that we can support some members attending EOH research network meetings as well as to ensure regional and central office staff and executive committee members can leave their offices to meet with researchers and research users. We will allow travel costs in accordance with standard university travel rates.

Student fellowships

We have anticipated a standard fellowship to be \$20,000 per year to be consistent with other funding agencies. Whether these will be annual awards can be renewed for more than one year or will be "entrance scholarships" will be decided at the inaugural network meeting.

Grant Development Fund

A crucial service provided by the network to members, this fund will remove obstacles such as travel costs, grant coordination and communications that might otherwise prevent researchers from interacting to develop innovative collaborative research proposals. Requests between \$2,000 and \$10,000 will be entertained by the executive committee or their delegated working group.

Remaining costs

All other costs have been based on standard expense estimates for running a research group. These estimates are based on recent experience in developing and managing research units funded by the MSFHR.

3.3 Outcomes

Key measurable outcomes to be used to evaluate the networks success in the first four years

1. Membership
 - a. Increasing membership over the course of 4 years
 - b. Full committees and working groups
 - c. Attendance at annual meetings and workshops meets planning committee expectations
 - d. Website actively used and positive feedback on other network communication products
 - e. Regular growth of the inventory of researchers and infrastructure in BC plus evidence of members accessing this inventory
2. Grant Success
 - a. Full allocation of research development grants to support collaborative research and capacity building initiatives
 - b. Success in funding of projects supported by network development grants
3. Collaboration
 - a. Steady annual increase in the number of new collaborations over 4 years
 - b. Evidence of sharing of expertise and infrastructure
4. Training
 - a. Feedback from students receiving student fellowships
 - b. Rate of retention in BC of researchers and students supported by the network
 - c. Regular and sufficient attendance of members at training workshops
 - d. Members involved in offering mentorship opportunities for students and junior researchers
5. Knowledge transfer
 - a. Annual increase in use of knowledge transfer coordinator by network members
 - b. Increasing rate of media stories of research success in EOH in BC
 - c. Creation of a network website that acts as a clearing house for information studentships, funding opportunities, searchable network inventory, links to other environmental and occupational health websites, links to online datasets useful to network members, recent research abstracts
 - d. Outreach and communication activities, for example research reports produced in lay language for easy reading by research users

4 Appendices

4.1 Summary of proceedings from the Research Network Consultations

4.1.1 Report from Prince George Town Hall Meeting

Location: UNBC, Prince George.

Date: 7th September 2004

Main Points Raised at the Meeting:

What Helps/Hinders your Research...?

Financial Resources

- Need for more research dollars to facilitate environmental health research with a northern focus.
- Need to change the current situation whereby the bulk of BC's research dollars are spent in southern BC by researchers in the lower mainland.

Network locally

- Need to network locally so that researchers in UNBC know each other and each other's research area
- The network should ensure that smaller, regional, voices are included in the network

Network Province wide

- Need for a network in BC so that researchers in the province could get to know each other and be aware of the types of research that are going on in order to develop collaborations
- Encourage researchers to move within the province by supporting sabbatical time
- Increase accessibility to personnel. This could be done by developing an inventory of expertise and infrastructure available in the province.
- Deliver the right researcher to the right problem

Regional issues

- Need to recognize the different set of cultural perspectives in Northern/remote communities

- Include meaningful involvement of northern researchers maximize local and regional experiences and resources to address local and regional research problems
- Improve UNBC's experience of working with researchers in the South where communication has broken down.
- Need to overcome hindrances, such as travel costs, of living in a remote area
- Need to develop a node of the Network in the North. This could be a staff person that could assist researchers in
 - Increase visibility of the network
 - writing grants,
 - highlighting funding opportunities,
 - act as a clearing house of information in most suitable format: electronic, hardcopy...etc
 - link northern researchers together to form partnerships across disciplines
 - provide the time and support needed to get into communities.

Knowledge Transfer & Exchange (KTE) Issues

- Need to develop community partnerships of the researchers in the network, particularly with the aboriginal community, and to develop an extension to the network.
- Network should be involved not just in creating new knowledge but also in dissemination. Should have an outreach extension arm that would be involved in communicating research.

Network Action

- Do a regional brainstorm of the most important environmental and occupational health issues
- Allow the network to provide a stamp of approval on some key areas of research and provide support to network member in developing grants to study them
- Bring people together – Since a lot of collaboration is dependent on interpersonal relationships and face-to-face meetings, mechanisms for developing these collaborations should be facilitated.
- Tackle financial services in the universities to overcome the problem of dealing with rotating control of funds

Student Training

- Provide opportunities for students to get coops and placements

8 Networks Shared infrastructure

Need to collaborate the eight networks as there is a finite number of communities for research and these could become exhausted by researchers needs

Accountability

- No of public meetings
- No of Partnerships created
- Research generated by public meetings / KT efforts
- Placement of Students
- Accessed funds
- Events such as launch/ research day

Organization

- Director
- Regional coordinators to act as a hub of network and provide a strong local network that will feed into a stronger overall network.
- Network should be multi-location, multidisciplinary and be a visible presence at university

4.1.2 Report from Vancouver Town Hall Meeting

Location: UBC Robson Square, Vancouver

Date: 13th September 2004

What Helps your Research...?

Resources

- Human resources including admin, secretarial, research personnel, knowledge transfer personnel and grad students
- Supportive work environment
- Resources such as people and finances
- Range of academic and admin skills
- Financial support infrastructure support/ operating support grants
- Highly trained staff
- Access to researchers and research tools
- Access to information and databases containing information
- Supportive work environment – institutional support – co-worker support
- Political support – academic appointment

Research Ideas

- User forums for cross-sectoral discussion to help generate ideas
- Identifying areas of research needs
- Access to researcher users to establish needs
- New ideas
- Research ideas from community and infrastructure
- Problems to solve
- Policy demand for research
- Timeliness of research

Collaboration and Linkages

- Access to experts in a variety of areas
- Infrastructure for networking, preparing applications
- Partnerships between scientists and practitioners
- Relevance for practice
- Interdisciplinary research team
- Academic appointments
- Similar passions
- Decentralization of federal research
- Mentoring for new researchers
- Info on data exposure sites
- Tools such as consolidated databases

- Decentralization
- Access to information/data to advance the research
- Access to workplaces/populations
- More visibility of BC excellence

KTE – Communications – End use of research

- CHER help with media communication has show the success of having person designated to the task
- Increased communication to decision makers
- Knowledge transfer and exchange
- Assistance with commercialization of products and devices
- Timeliness – Tie in to national agenda

Training

- Support of trainers ie funding stipend, training
- More scholarships/student support

What hinders your research...?

- Lack of human resources capacity (admin/secretarial) stability in research personnel, finance, grad students, time
- Identifying and communicating with worksite collaborators
- Building structure/sympathies to get access to worksites – open doors to worksites
Ivory tower approach
- Territoriality
- Mandate
- Complexity of issues
- Politics
- Access to researchers of experts
- Processing grants takes a long time
- Lack of hard funded positions in E and OH
- Limited funding committed to E and OH
- Confidentiality issues
- Lack of positions
- There isn't a national pot of funds dedicated to occupational and environmental health
- Career progression framework
- Having too many responsibilities too many hats conflicting demands
- Language barriers
- Lack of appropriate data
- Lack of awareness of issues by public and other researchers
- Lack of dissemination medium
- Lack of access to reports (grey literature) and government research that's not in the scientific literature

- Lack of access to research done by NGOs government, unions and industry. Research results may not be in usable form or may need passwords to academic library
- Access to information stats surveillance info, databases
- Collaborating outside own research space
- Lack of routinely collected exposure data
- Establish a more research friendly culture
- Political directions
- Confidentiality
- Access to mentors esp. cross disciplinary
- Over onerous administrative requirements in networks/collaborations without sufficient return on effort
- Disconnect between research and industry
- No career progression framework
- Lack of demonstrated benefit of research on health
- Ethical considerations
- Continuing research training opportunities for practitioners
- Conducting research in a service environment
- Lack of access to data
- Centralization of funding (Central Canada)
- Lack of time
- Bureaucracy

Reasons why we need a network

- To disseminate
- For outreach
- To augment future research
- A cross disciplinary environment will foster stronger better communication and exchange of ideas
- To inform policy makers
- To increase research funding
- Because any increase in funding is better than none
- Interdisciplinary approach to research needs to be voiced
- Link researchers
- Exposure interdisciplinary
- Increase expertise – creative
- Solve problems remove hindrances
- Need to ensure that the benefits of the network and not outweighed by onerous admin it should be a valuable use of time not another level of beurocracy
- More information exchange
- Researcher – community interaction
- Assist with communications
- Facilitate interdisciplinary work
- Encourage – involve those in remote locations of BC
- Lead to a health result

- Multidisciplinary approach to research needs a network so researchers from different disciplines can meet and form collaborations
- Solve some of the hindrances
- Include those in remote locations

Training Support

- 2) The Network to act as a clearinghouse for student research opportunities, internships, practical placements, which could be posted on the Network website. Also advertised for partners to fund
- 3) Short-term cross-disciplinary training opportunities. Network to provide training and travel costs for work at other institutions
- 4) Sponsoring specific workshops for network participants (students, researchers and users) KTE & uptake workshops

Networking and Partnerships

New linkages

- 1) Identify other relationships including other MSFHR networks
- 2) Partners within the network have equal status
- 3) Potential partners, either internal or external
 - a. WCB
 - b. Municipal, provincial, and federal government
 - c. Labour
 - d. Employers
 - e. Academia
 - f. Health Associations

Important to articulate objectives before strategizing about the partnerships

Leveraging opportunities

Network members should be involved to a greater or lesser extent in each of the phases of research from identification of problems. Research, Intervention based on research such as policy change or work practices, reevaluation, and implementation. This whole process needs to be mediated by better communication and there should be professional advice on developing a communication strategy

Sharing resources

Partnerships can be developed on an ongoing basis or just as needed
Look at developing partnerships outside of BC both federally and internationally

Benefits of partnerships

Increased success in obtaining funding
Increased knowledge base and Resources...for example the living lab at BCIT could be used by partners instead of building separate labs

Knowledge Transfer and Exchange (KTE)

Translate to users

Need to budget for KTE to organize and reach media etc

Include users in network – these include government, industry, NGOs and unions

Encourage users to be part of research teams

Encourage users to help set the agenda for research

KTE within/beyond the network

Negotiate agreement with government, industry, NGOs and unions

Subcommittees as facilitators

Make the network 'know' e.g. talks in community

Announcement of studentship competition for projects suggested by users.

How Knowledge for Policy, Programs, return on investment

Policy based evidence making

Create say 10 studentships dedicated to projects driven by users needs and link to existing researchers

Improved working conditions

Have users whose projects are being pursued contribute funding

Economic Return on Investment

KTE to increase awareness of new technology to promote use

Network Management

Membership

Inclusive: Allow individuals and organisations to join if interested

Types of membership

Researchers & Other Individuals

Organisations

Students

Leadership

Steering Committee

2 Co Chairs 1 academic | user community

Executive Director

Other Key Committees e.g. Training, Outreach

Infrastructure

Under Exec Director

Maintains databases

Bridges gaps between members and co-chairs/steering committee

Manages personnel
Oversees budget
Establishes and maintains website
Coordination of events/meeting

Operations

- Hire Exec. Director and staff
- Appoint Co-chairs, after input from Community
- Steering Committee MSFHR?
- Steering Committee: ad hoc task force to begin with and add some community reps (union, industry, special interest)
- Early Retreat to plan details – Thereafter let it become an annual event including research presentations as well as committee meetings
- Knowledge translation

Accountability

Committee membership drawn from different organizations, sectors, stakeholders
Proportional representation of researchers and users, representation across parties, academia, industry etc
'invisible' administrative structure
Managing personnel, adhering to policies, decreasing administrative burden
Coordinating committee

Structure

Executive director – develops draft policies, implement policies

Exec Committee

provide advice to director – representative of groups/sectors and organizations
Establish long-term priorities by consultation
50% of committee could rotate annually

Manager

Responsible for finances and annual reports etc

Research Personnel

Consensus decision-making
Rotating priorities
Open annual meeting with a research workshop

Shared Infrastructure

- Share capacity for dissemination / PR
- Knowledge translation/transfer between community and policy makers
- Space whether centralized or devolved
- Shared databases and database management/clearing house
- Admin support
- Expertise liason MSFHR between networks

- Shared grant writers
 - Contributions and Commitments
 - Ed Chessor Good connections with industry
 - SOEH could offer space for executive director and a home for shared infrastructure joint facilitation /resources
 - Roles mentioned
 - Service on executive committee
 - Access the labour community
 - Link to existing O and EH websites
 - Strategic orientation for users willing to help with data management
 - Involvement dependent on strong admin support
 - Advocate in own research sector
 - Happy to spend \$
 - GO between for many new initiatives now in BC
 - Contribute expertise
 - Links to business community
 - Linking 8 networks
 - Research expertise
 - Interface or point of contact to organization/ community/constituency
 - Influence/ promote

4.1.3 Report from Victoria Town Hall Meeting

Location: Senate Chambers, University Centre, Victoria

Date: 20th September 2004

What Helps you Research.....?

- Administrative support/ Grant preparation
- Knowledge transfer – increase awareness among policy makers of the issues
- Transfer new knowledge to change makers
- Increased collaboration and meetings with new/ different researchers to from new and cross disciplinary research
- A database of who is doing what would be useful
- Provide an inventory of who has equipment and how to access it
- Bring collaborative group together
- Inventory of what types of data are collected
- Regular contact meeting identifying people so that people from remote locations can meet and
- Run workshops
- Need face to face meetings not just listening to presentations so researchers can get to know each other and realize areas of overlap

What Hinders your Research...?

- Resources
- Identifying experts and
- Lack or mentorship for junior researchers
- Access to populations to study
- Infrastructure to develop and work in a field
- Money to travel conferences courses out into the field
- Let us know what datasets are out there
- Knowing when funding opportunities arise
- Training
- People locators

Training Support

- Travel grants to attend events
- Specific grants for students to attend events
- Develop a mentor training program to develop efficient mentors
- Training of the community/public to increase research understanding
- Regional liaisons to work with communities to build contacts etc
- Identify network members with experience dealing with communities to assist with MOU
- Identify policy makers to communicate with
- Train senior researchers in dealing with communities

- Use video conferencing for regular/quarterly meetings and have face to face meetings annually

Networking

- Community University Research Partnerships
- Communications strategy
- A website
-
- E newsletter
 - o Funding alerts
 - o Highlight researchers and research area
 - o Organizations
 - o Highlight students looking for posts
 - o Print by request
 - o U Gulp Alumni newsletter
- Communications person

Knowledge Transfer Exchange

- Presenting research results

KTE beyond Network

- Link government into network through newsletter
- List of interests in govt for research results
- Proactive, 2 way, early involvement
- Media contact
- Use network community
-

KTE within Network

- Abstract of recent papers online
- Newest methodology section
- Post what grad students want to do – ask for assistance
- Also post positions available
-

Economic Return on Investment

- Reducing duplication
- Successful clinical trials
- Linkages
- Increased efficiency
- 5-7 stamp of approval projects going to CIHR
- Collaborative research

Network Management

(Diagram in proposal)

- Membership
- Annual Report

Accountability

- Monitor stamp of approval grants for success
- Funds meeting priorities set
- Survey membership ask what services they've used, workshops attended and is network worthwhile
- Turn out at the symposium
- Students trained
- Steering committee
- Has it improved human health
- Make the members record successes
- Achieve 50% make a contribution to human health i.e. pragmatic research

Shared Infrastructure

- Approach different networks when there is a need to study their populations
- Need strong links with the other 8 networks

4.2 List of Potential Network Members Identified During the Consultation Process