

AWARD NUMBER: IN NTG 102 045

PROJECT YEAR (Check one): 1st 2nd 3rd Final

Co Leader: Dr. Susan Kennedy, Scientific Director

Co Leader: Dr. Henry Harder, Associate Scientific Director

NAME OF NETWORK: BC Environmental and Occupational Health Research

HOST INSTITUTION: University of Northern BC

INDIVIDUAL FINANCIALLY
ACCOUNTABLE FOR NETWORK FUNDS Dr. Henry Harder

INDIVIDUAL COMPLETING THIS REPORT Dr. Susan Kennedy, Scientific Director; Pat Atherton, Executive Director

This report covers the network's progress over the period from 1 April to 31 December 2006. It also includes details of the network's plans for the period January 2007-December 2008 (Years 3 and 4 of the award period). This report should be read in conjunction with the first 15-month progress report submitted by the network for the period January 2005 - March 2006.

SECTION I – NETWORK'S PROGRESS

Please replicate the outcomes listed in Part 1 of the first 15-month progress report. If applicable, comment on any additions or changes that have been made to these measures since they were formulated. **Please limit any additions or comments to those measures applicable to Years 1 & 2 only. Part 11 of this report covers Years 3 & 4.**

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

PART 2: NETWORK STRUCTURE AND MANAGEMENT: Provide details of any substantive changes in the leadership, management and operations of the network since April 2006. The following headings may assist you: Network Goals; Leadership; Governance/Accountability; Operations; and Monitoring/Evaluation.

Governance:

BCEOHRN Board Terms of Reference provide for the rotating off of Board members annually at the general meeting. The BCEOHRN second Annual General Meeting was held November 24, 2006 in Vancouver. Three Board members resigned; two new Board members were nominated and ratified by the membership.

New Board members:

- Dr. Hugh Davies, University of BC, Vancouver
- Dr. Tim Takaro, Simon Fraser University, Burnaby

BCEOHRN Board Members as of November 24, 2006:

- Craig Stephen, Centre for Coastal Health, Nanaimo (Chair);
- Susan Kennedy, University of BC (Scientific Director);
- Caroline Alexander, Northern Health Authority, Fort St. John;
- Ray Copes, Director, Public Health Agency of Canada National Collaborating Centre for Environmental Health, Vancouver;
- Hugh Davies, University of BC, Vancouver;
- Henry Harder, University of Northern BC, Prince George (Associate Scientific Director);
- Gabrielle McHugh, Student, University of Northern BC, Prince George;
- Carla MacLean, Student, University of Victoria;
- Jack Nickel, Health Canada, Vancouver;
- Eleanor Setton, Student, University of Victoria;
- Tim Takaro, Simon Fraser University, Burnaby
- Shannon Wagner, University of Northern BC, Prince George.

Minutes of this meeting are appended to this report as Appendix A.

Leadership:

Based on feedback provided by MSFHR in response to the BCEOHRN Year 1 Progress Report, BCEOHRN put out a call to its Board members to elect a Chair of the Board who is not also the Scientific Director. Craig Stephen, Immediate Past Scientific Director, has taken on this role, effective November 2006.

Accountability:

The Terms of Reference for the Board of Directors were revised based on feedback received from MSFHR in response to the BCEOHRN Year 1 Progress Report. Revised Terms of Reference are appended to this report in Appendix B.

During the reporting period, the Board has met on the following dates, with any changes to budget line items being submitted to MSFHR following each meeting along with meeting minutes:

2006 May 3
2006 June 28
2006 October 26
2006 November 24 (AGM)

Operations – Working Groups:Mentorship Working Group

During the reporting period this working group has met via teleconference and has developed a number of initiatives to foster mentoring across members (see Part 5 for details). The working group provided a report on their work at the AGM. The PowerPoint presentation of this report appears in Appendix C.

Educational Event Working Group

Membership of this working group expanded over the reporting period:

- Glenys Webster, Student, UBC (Chair), Vancouver;
- Caroline Alexander, Research User & Student, Northern Health Authority, Fort St. John;
- Ray Copes, Researcher and Research User, PHAC NCCEH, Vancouver;
- Hugh Davies, Researcher, UBC, Vancouver;
- Carla MacLean, Student, UVic, Victoria.

The working group has met via teleconference 6 times in the reporting period to develop an educational event in 2007 focusing on Knowledge Transfer and Exchange (see Part 5 for details). In the next reporting period a further series of teleconferences will be held by the working group to finalize planning of the event.

Committees:

The Research Capacity Development Grant Evaluation Committee has maintained its composition and mandate in the reporting period.

PART3: PARTICIPATION: Provide details of any substantive changes to the networks' participants since April 2006 (number, characteristics, etc). Describe the efforts made by the network to seek and respond to participants' needs and priorities.

During the reporting period, BCEOHRN membership guidelines were unchanged. The Scientific Director held an information session with the Victoria environmental and occupational health research community at the University of Victoria, with meeting participants coming from both the University and the health authority.

A very successful recruitment drive was carried out via email with all of the province's environmental health and medical health officers. We are delighted to have many of these important research user stakeholders as part of our network.

BCEOHRN's membership as at December 31, 2006 is 382 individuals, as described below.

Members By Agency		
Colleges/Universities	Number	% of Total
UBC-V	128	33.5%
U Vic	30	7.9%
UNBC	27	7.1%
SFU	21	5.5%
BCIT	8	2.1%
Other	7	1.8%
Malaspina University College	5	1.3%
TRU	4	1.0%
UBC-O	2	0.5%
Camosun College	1	0.3%
Douglas College	1	0.3%
Justice Institute of BC	1	0.3%
Kwantlen University College	1	0.3%
Langara College	1	0.3%
Okanagan College	1	0.3%
Selkirk College	1	0.3%
Vancouver Community College	1	0.3%
Sub-Total Colleges/Universities	240	62.8%
Others	Number	% of Total
Health Authorities	56	14.7%
NGOs, Unions	29	7.6%
Research Institutes	21	5.5%
Industry	11	2.9%
Government: Provincial	9	2.4%
Government: Federal	7	1.8%
Other	6	1.6%
Government: Municipal	3	0.8%
Sub-Total Others	142	37.2%
Total Members	382	100.0%

Table 1: BCEOHRN Members By Agency describes the place of work or study of members.

Members By Geographic Region		
	Number	% of Total
Lower Mainland	240	62.8%
Vancouver Island/Islands	63	16.5%
North	44	11.5%
Interior	29	7.6%
Other	6	1.6%
Total Members	382	100.0%

Table 2: Members By Geographic Region describes the primary location of members.

Members By Relationship to Health Research		
Researchers	184	48.2%
Research Users	94	24.6%
Students	71	18.6%
Other	33	8.6%
Total Members	382	100.0%

Table 3: Members By Relationship to Health Research describes the primary affiliation members have with health research; there may be some cross-over between Researchers and Research Users.

PART 4: COLLABORATION AND PARTNERSHIPS: Describe in what ways the network has fostered collaborations and partnerships outside of the network. (Do not duplicate information already provided in the first 15-month progress report.)

Local collaborations

BCEOHRN has entered into a formal agreement with UBC's Office of Health Research Resource Office (HeRRO), which had developed the Facilities and Research Equipment Database (FRED), designed for use by UBC and Vancouver Coastal Health Authority staff and faculty. The BCEOHRN agreement will build on this existing infrastructure; HeRRO has hired staff to augment the database to better meet the needs of BCEOHRN members, funded through a grant-in-aid from BCEOHRN. Such improvements will take the form of additional shareable resources across the province and improved searching capabilities for those outside of the UBC/VCH communities with improved search terms to enable environmental and occupational health researchers to find resources. The next progress report will provide details on this project's implementation.

Active research collaborations have been facilitated among BC EOH researchers through several BCEOHRN initiatives, including the Research Development Seed grant program (which requires collaborative proposals, and emphasizes support for trainee research), and the Scientific Exchange carried out in conjunction with our annual general meeting. In addition, BCEOHRN researchers and staff collaborated (also collaborating with other Networks) in submitting an application in response to MSFHR's call for Platform proposals (Population health data access and analysis platform). In addition to collaborating on the research proposal, BCEOHRN staff assisted in distributing a survey regarding the platform to stakeholders and encouraging members to complete the survey.

Collaborations with other networks

- BCEOHRN participated in the sponsorship of the May 17 workshop organized by BCNAR, BCRRHRN, the Vancouver Island Health Authority and the University of Victoria entitled "Collaborative Research Workshop on Qualitative Methods". Exhibit materials were made available and a number of new network members were signed up.
- In the absence of a network coordinator at the Child and Youth Health Research Network for a period this year, the BCEOHRN Executive Director provided website assistance to that group over the reporting period.
- BCEOHRN has shared details of its members' database and mentoring program with interested HoPNs to assist them with planning similar initiatives.
- BCEOHRN's Executive Director initiated a process of monthly teleconference meetings with the HoPN coordinators to improve information sharing. To reduce costs, the Executive Director carried out research to source a teleconference provider with free bridge services to connect all 8 HoPNs with nominal long distance charges being incurred by each caller, equitably sharing out the cost of these meetings.
- BCEOHRN's Executive Director shared with other HoPNs an opportunity for their members to contract free student statistical analysis, or fee for service faculty statistical analysis, through UBC's Department of Statistics.
- To improve event planning outcomes, the BCEOHRN Executive Director carried out research to source a free online password-protected calendar. This is used by the HoPN coordinators to advise one another of events being planned to prevent conflicts in scheduling across the HoPNs, which may compete for the same audience.
- BCEOHRN acted as a liaison between the other HoPNs and UBC's HeRRO to explain the existence and benefits of the Facilities and Research Equipment Database. This allowed the other HoPNs an opportunity to collaborate with HeRRO if they felt this tool would be useful for their members.
- The HoPNs at the April Co-leaders' quarterly meeting established three working groups to address areas where shared infrastructure could generate economies of scale across all HoPNs:

Membership Working Group involvement: BCEOHRN's Executive Director chaired a working group comprised of HoPN representatives to resolve issues around networks' membership. The working group's deliberations led to the revision of all eight HoPNs' "Join us" form, an electronic form that captures data for new members for networks' use, which resides on each HoPN's website. The Chair continues to provide direction on this initiative on behalf of all 8 HoPNs as MSFHR implements the programming changes and uploading of the new form to the HoPNs' sites.

Technologies Working Group involvement: In the early spring, BCEOHRN's Executive Director carried out groundwork in sourcing WebEx as a possible communications tool for pan-provincial use and proposed it to MSFHR as a possible shared tool. This web-based shared documents application was demonstrated to the Working Group, then to the Co-leaders and has now been approved by the latter as a formal proposal by the Working Group to MSFHR as a strong application of shared infrastructure. Voice Over Internet Protocol (VOIP) options have also been sourced by BCEOHRN and provided to the Working Group.

Communications Working Group involvement: BCEOHRN's Executive Director participates as a member of this Working Group and has sourced a number of KTE tools for consideration by the Group.

National collaborations

BCEOHRN supported the Canadian Rural Health Research Society Conference, held October 17-19 in Prince George, through sponsoring students presenting environmental/occupational research and through the participation of the Associate Scientific Director who provided scientific guidance to the planning group. In total, five students were supported to attend this conference. Some of their comments are available in Appendix D. BCEOHRN has been represented (via the Scientific Director) at the PHAC NCEEH scientific advisory committee and at the Canadian Lung Association Environmental Health Research Framework development initiative.

PART 5: CAPACITY BUILDING: Describe in what ways the network has had an impact on research capacity building, including initiatives targeting young investigators and research trainees. (Do not duplicate information already provided in the first 15-month progress report.)

Information Sharing:

BCEOHRN has been focusing considerable energy toward the development of a database project aimed directly at making information sharing and networking seamless for BC environmental and occupational health researchers. This is a 'who is doing what, where' database designed to provide comprehensive and up-to-date information about EOH researchers and research activities across the Network and to make this available to research users, other EOH stakeholders and the public.

Included in the database will be: members' contact information, professional background, and areas of expertise; research project histories including funding sources; current and future research interests; keywords for easy searching; members' interest in being/finding a mentor; members looking for students; members with jobs for students; and, members' resources which can be shared either for free or a fee, including expertise, datasets, equipment, etc. Also included is relevant EOH grey literature generated by members (ie. publications, technical reports, government documents not available through searching traditional health and scientific library resources). These are available as a hyperlink to another website, or linked to a .pdf document which is stored on the BCEOHRN web server.

Two full time student assistants were hired in May to: a) individually contact each member to inform them about the project; b) obtain CVs; c) obtain copies of relevant grey literature; d) generate interest in the project. The students continued in a part time capacity in the fall. To date we have had 100% support for the database from Network members. The database will be launched early in the next reporting period, as it is nearing completion at the end of this period. Our plan is to continue to have a dedicated staff person for this project in order to ensure the database is kept up to date in a way that does not constitute a burden to network members themselves.

Mentorship:

In response to member input, the database will flag researchers willing to act as mentors and students/trainees and new researchers looking for mentoring or peer-to-peer support. We anticipate this tool will create opportunities for enhancing mentorships throughout the province.

The Mentorship Working Group has, in the past nine months, launched several deliverables:

- A web page of resources for members' use when looking for mentoring opportunities in BC's universities;
- A web page of resources for members' use when considering developing a mentoring program in their own institution.
- Peer-to-Peer/Mentoring Groups. Goals for the program have been developed, along with a handbook for groups to use. In total three pilot groups have been struck in: Geographic Information Systems; Injury Prevention; and, Water. A total of 21 members are involved in these groups, which are considered micro-networks and which may lead to national grant applications. An open invitation is extended to all members interested in developing groups in other areas within environmental and occupational health research. Details on these can be found in Appendix C.

Educational and Scientific Exchange Events:

The second Scientific Exchange and Annual General Meeting held in November included presentations of researchers'/trainees' research projects in the form of six oral presentations (from the researchers who had received Network development grant support) and 35 posters. Feedback from the over 100 attendees was uniformly positive. Details of these presentations are included in Appendix E and F. The event's program is included in Appendix G. The Educational Event Working Group is developing a workshop for Spring 2007 (see Part 6 for details).

Research Capacity Development:

During the reporting period, BCEOHRN has held one call for Research Capacity Development funds. Three applications were received by the Scientific Evaluation Committee; two were approved and one was rejected due to lack of connection with the mandate of BCEOHRN. Appendix H includes a summary of the recipients and their project titles.

Travel Bursaries:

Travel bursaries were made available to members to attend the 2nd annual Scientific Exchange and AGM in November. In total, 10 applications were received and approved by the Scientific/Associate Scientific Directors. These individuals, primarily trainees, would not have attended the AGM had they not received financial support.

Participation in Network activities:

110 people attended the AGM from all regions of the province, compared to about 60 at last year's event. Of these, 44 were trainees/students, 36 were researchers, 10 were community-based researchers, six were research users and 14 were none of these. Eighty four participants came from communities located in the lower mainland; 26 came from other parts of the province. A complete participant list is located in Appendix I.

Trainee/student Participation:

Trainees/students at the end of the reporting period, comprise about 19 percent of network members. At the AGM, 40 percent of participants were trainees/students. A tally of participants on the Board and Working Groups shows that trainee/student involvement is remaining steady at 36 percent, or 8 seats, of the 22 seats held by volunteers in these roles. The working group developing the April 2007 workshop is chaired by a trainee with three of the five seats held by trainees/students.

If the network issued grants in Year 2, please provide the following details:

CRHRS Conference Student Sponsorship (Oct.)	Total number awarded #5	Total dollar value of awards \$5,000*
Research Capacity Development (Oct.)	Total number awarded #2	Total dollar value of awards \$20,000
Travel Awards: Scientific Exchange and AGM (Nov.)	Total number awarded #10	Total dollar value of Awards \$5,300*

* These are estimates only, calculated based on the maximum available to each recipient. Final accounting won't be available in this reporting period.

PART 6: KNOWLEDGE TRANSLATION AND EXCHANGE: Describe any processes or activities that have been used by the network to facilitate translation of research findings to end-users. (Do not duplicate information already provided in the first 15-month progress report.)

Training:

The Educational Event Working Group is developing a workshop for April 19 & 20, 2007, entitled "Effective Knowledge Translation and Exchange". At this time, sessions have been developed to appeal to researchers, trainees/students and research users. Presenters confirmed to date are:

- Linda Aylesworth, Health/Science Reporter, Global TV
- Dr. Penny Ballem, former Deputy Minister, BC Ministry of Health
- Dr. Ray Copes, Medical Director, Environmental Health, BC Centre for Disease Control and Clinical Associate Professor, Health Care & Epidemiology, University of BC
- Dr. Patricia Martens, Director, Manitoba Centre for Health Policy, University of Manitoba
- Patty Pitts, Media Relations Manager, Communications, University of Victoria

Knowledge Transfer:

The BCEOHRN website includes more robust content than it did in year 1. Members now have the facility to communicate with one another using a message board and a members' email list, facilitating knowledge transfer across the membership. Use of the website has increased over 35% since the last reporting period; the average number of daily hits is now around 500, compared with about 300 in March. A wiki, a public, web-based tool for sharing information, has been developed for grey literature that is available for use by all members to list their non-peer reviewed reports, publications, etc.

The database of BCEOHRN members is almost ready to be launched. This tool will provide members and the public access to information about members' projects and research interests.

The BCEOHRN newsletter Network News spring edition included information on the projects being carried out by Research Capacity Development fund recipients. A copy of this document is available in Appendix J.

A more dedicated focus on resources for KT will be undertaken in the coming period should additional funding be available.

PART 7: LESSONS LEARNED: Provide details of any lessons learned that were not included in Part 7 of the first 15-month progress report.

BCEOHRN has been actively researching new technologies to improve communications methods for requirements both within the Network and across its membership. In the summer months the Associate Scientific Director and Executive Director carried out a number of tests using desktop webcams in their Prince George and Victoria offices. These tests were to determine the effectiveness of a number of web-based telephony applications such as Skype that could be used to improve meeting effectiveness by the Management Committee where video of three meeting participants could be shared along with audio and file transfers. Testing was done with a view to broadening the scope of telephony solutions to a larger audience to better connect members across the province. A key lesson learned in this activity is that the field of telephony is a burgeoning one and will offer more and better options for the Network as time progresses. More work will be done in this area, building on new technologies to improve communications across researchers in BC.

Database development has provided another learning opportunity. Initial work with a developer was stalled as the developer proved unreliable in meeting deadlines and deficient in communicating. A second developer has been contracted and working with that organization has been labour intensive, as has been the collection of detailed and accurate data for the database. Ultimately it is anticipated that the work going into this project will be an excellent tool for members to grow research capacity in the province.

PART 8: OTHER COMMENTS (optional): Provide details of any additional information that pertains to the network's progress between April and December 2006.

Members' Input:

BCEOHRN's website acts as a clearinghouse of information for members. Until the summer months, once weekly updates were emailed to members to provide an overview of website updates from the previous week. In July, a survey was taken of ~10% of the membership (N=300) to check in with members about their perceptions of the value of this practice. Feedback was overwhelmingly supportive. There was some indication that less frequent updates would be equally valued but would generate less email traffic. As a result, the practice was changed to a bi-weekly email update with two weeks' worth of website content updates.

Members' Feedback:

Contact information for Board members is available on the BCEOHRN website for members to have access to their Board for feedback. A web-based survey is available for members to provide feedback. Members have been vocal in their support of the Network. A collection of some of their input is included in Appendix D.

Recipients' Success:

It is generally acknowledged that a key measure of success for the Network is that of national funding awards arising from BCEOHRN Research Capacity Development fund awards. It is also recognized that it is too early to measure such outcomes; however, two awards were made in October 2005, in Year 1. One of the two recipients has been successful in securing additional funding. See Appendix K for details on these two recipients' activities.

Accountability and Transparency:

BCEOHRN includes key documents on its website for public consumption including: the Network's Formative Review Report; the Implementation Plan; and AGM materials including minutes of the meetings. Minutes of Board meetings and a revised budget, when applicable, are sent to MSFHR shortly after each meeting to strengthen BCEOHRN's accountability.

PART 9: PROGRESS AGAINST MEASURABLE OUTCOMES: Based on your responses to Parts 2 – 8, briefly report on your progress to date against the measurable outcomes specified in Part 1.

The following key measurable outcomes were outlined in the BCEOHRN proposal (restated from Part 1), and covered four years of implementation of programs. In assessing performance of the Network outcomes must be realistic for its second year. A refinement of these outcomes based on the reporting period follows.

Performance Area/Indicator	Years	Year 2 General Achievements
Membership		
Increasing membership over the course of 4 years	1-4	Membership has grown to 382.
Full committees and working groups	1-4	Committees and working groups have been struck and continue to be fully operational.
Attendance at annual meetings and workshops meets planning committee expectations	1-4	The AGM and workshop attracted over 100 people, in excess of expectations.
Website actively used and positive feedback on other Network communications products	1-4	Survey carried out in summer months; refinements made.
Regular growth of the inventory of researchers and infrastructure in BC plus evidence of members accessing this inventory	3-4	
Grant Success		
Full allocation of research development grants to support research project development, collaborative research and capacity building initiatives	1-4	Grant allocations for the reporting period were at 100% of budget allocation.
Increasing rate of success in funding of projects supported by Network development grants	2-4	Too early to measure; however, 1 of 2 awards from October 2005 have been successful with additional funding.
Collaboration		
Steady annual increase in the number of new collaborations over 4 years	2-4	Benchmarking to be done early Year 3.
Evidence of sharing of expertise and infrastructure	2-4	Membership has been keen to share CVs and grey literature for BCEOHRN database project.
Training		
Feedback from students receiving student fellowships	N/A	This program was removed from the budget in the June 2005 realignment by the Board of Directors
Rate of retention in BC of researchers and students supported by the Network	3-4	Too early to monitor
Regular and sufficient attendance of members at training workshops	2-4	Planning underway; to be held early 2007.
Members involved in offering mentorship opportunities for students and junior researchers	2-4	The BCEOHRN Peer-to-Peer/Mentoring Groups have attracted members to work together.
Knowledge Transfer		
Annual increase in use of knowledge transfer coordinator by network members	3-4	To be included in next period
Increasing rate of media stories of research success in EOH in BC	3-4	
Creation of a network website that acts as a clearinghouse for information on studentships, funding opportunities, searchable network inventory, links to other environmental and occupational health websites, links to online datasets useful to network members and recent research abstracts	1-4	Website being updated daily; new pages added regularly as needs become evident.
Outreach and communication activities, for example research reports produced in lay language for easy reading by research users	3-4	

Measurable Outcome Targets and Achievements For Year 2, as outlined in the Year 1 Progress Report:

Performance Area/Indicator	Target	Year 2 Measured Achievements
Membership		
Increasing membership over the course of 4 years	Membership increases 20% over Year 1.	Membership increase, end of Year 1 to end of Year 2: 45%
Full committees and working groups	At least three working groups/committees, comprised of both researchers and students.	Mentorship Working Group; Educational Event Working Group; Evaluation Committee
Attendance at annual meetings and workshops meets planning committee expectations	At least 75 participants at AGM, a 23% increase over Year 1.	110 participants; a 45% increase over Year 1.
Website actively used and positive feedback on other Network communications products as determined by surveying participants at the AGM in November	At least a 10% increase in the number of hits over March 2006.	Website use has increased 35.6% since March 2006.
Regular growth of the inventory of researchers and infrastructure in BC plus evidence of members accessing this inventory	At least 40% of applicable researchers in members' database are fully listed.	To be launched early in new year.
Development of grey literature database has added value for members	At least 40% of applicable researchers in members' database have grey literature listed.	To be launched early in new year.
Evidence of use of grey literature database by members	At least 100 hits on the grey literature database.	To be launched early in new year.
Grant Success		
Full allocation of research development grants to support research project development, collaborative research and capacity building initiatives	Grant approvals are at least 80% of budget allocation.	Full budget allocation was expended in the research capacity development fund.
Increasing rate of success in funding of projects supported by Network development grants	Benchmark for Years 3-4 reports; based on grant reports due one year after grant awarded.	First set of recipients' reports received; one of two was successful in obtaining additional funding.
Collaboration		
Steady annual increase in the number of new collaborations over 4 years	Benchmark for Years 3-4 reports; based on members' survey.	To be carried out early in Year 3.
Evidence of sharing of expertise and infrastructure	At least 100 hits on the shared resources fields of the members' database. An increase in the number of hits counted on FRED.	To be launched early in new year.
Evidence of new collaborative efforts across geographical distances, institutional and departmental boundaries	Number of places, institutions and departments reflected in approved BCEOHRN Research Capacity Development Grants increases year over year.	In reporting period, two applications approved including participation from UBC-based members as well as UNBC and the University of Kentucky.
Training		
Regular and sufficient attendance of members at training workshops	At least 75 participants at the 2006 educational event(s).	Event planned for early 2007.
Members involved in offering mentorship opportunities for students and junior researchers	At least 10% of applicable researchers in members' database participate in Mentoring Program.	To be launched early in new year.
Develop and convene State of the Art and Grant writing workshops in the reporting period, or shortly thereafter.	Workshop development is clearly demonstrated.	Being considered as shared workshops across HoPNs.
Knowledge Transfer		
Creation of a network website that acts as a clearinghouse for information on studentships, funding opportunities, searchable network inventory, links to other environmental and occupational health websites, links to online datasets useful to network members and recent research abstracts	At least five new web pages added to BCEOHRN.ca.	New pages: mentorship program (5 pages) members' mailing list page; members' message board page; web-based seminars page; jobs page.

SECTION II – BUDGET UPDATE: Please complete the spreadsheet in Appendix 1, indicating the network's Year 2 budget and Year 2 actual expenditures. Also indicate the proposed budgets for Years 3 and 4, using a budget of \$250,000 per year, and a budget of up to \$500,000 to show how additional funds would be used if granted. Use the budget categories that appear in the spreadsheet to structure your response. Provide sufficient detail to describe and justify each item in terms of its contribution to the goals and operations of the network.

SECTION III – NETWORK'S PLANS FOR YEARS 3 AND 4

PART 10: DEVELOPMENT PLAN: Describe the network's development plan for Years 3 and 4, including major strategies to be implemented and outcomes to be achieved. If the Network is seeking funding above the current level of \$250,000 per annum, demonstrate that the Network has capacity to make use of additional funding, and how it will add value to the goals of the network.

Knowledge Translation and Exchange:

A focus for years 3 and 4 is improved knowledge translation and exchange in environmental and occupational health research in BC. The first activity toward this goal is that of database development, bolstering the BCEOHRN database to include more data that is available to the public, policy makers and the media, and making it easier to find researchers and research users in the province for KTE purposes. Enhancement of UBC's Facilities and Research Equipment Database (FRED) is part of this work, making shareable resources easier to locate in the province. The workshop being held in April 2007 is the second approach to achieving this goal. A third approach is an increased staffing model that includes a KTE specialist who would assist members in performing KTE activities, including assisting with writing, connecting with media, preparing media releases, and related tasks, across the province. Finally, a communications specialist would be contracted to write informational materials about the Network, including brochures, newsletters, etc.

Research Capacity Development:

The Board of Directors has received the membership's sound endorsement of BCEOHRN's support to the research community in the form of its research capacity development fund (which provides up to \$10K for the support of research grant development activities). This program was expanded in the past year to allow applications aimed at the collection of pilot data, in direct response to external feedback received from colleagues outside of BC. Despite the small size of these seed grants, BCEOHRN has followed a rigorous peer review process using CIHR guidelines, including those regarding potential conflict of interest. The program was discussed at length at the 2006 Annual General Meeting, where it was observed that this source of funding fills a critical niche not available anywhere else; there was consensus that this is a key program with potential to increase BC researchers' success at national funding competitions. It was agreed that there is a need to measure the effectiveness of the program, but that it's too early yet to do so, although one of the first two BCEOHRN recipients was successful in obtaining national additional funding. There was also discussion of MSFHR's revised guidelines which indicate that any such 'awards' from networks in excess of \$5K will require external review. The strong view expressed by the network membership was that \$5K is too small an amount to ask external reviewers to adjudicate. It was argued that to establish infrastructure for this would be a waste of resources, and the Board was urged to begin a dialogue with MSFHR regarding this new policy.

Networking and grant facilitation:

Other priorities for years 3 and 4 are increased opportunities for networking and grant facilitation. Strategies for these outcomes include additional meetings/workshops and travel support funds for members to attend them; increased mentoring opportunities potentially using new technologies to better connect members across the province; and the possibility of developing a register of personal and resources available for grant facilitation.

These priorities directly connect to the vision and mission of BCEOHRN, as articulated in the 2004 implementation plan:

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. BCEOHRN 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

BCEOHRN 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.*

The original implementation plan set out this vision and mission based on an understanding of a funding rate of \$500K per fiscal year, at that time to commence April 1, 2006. The current scenario that provides half that amount has resulted in the retrenchment of a number of planned programs and a shifting of funding priorities by the Board of Directors. Without a funding uplift to the originally understood level of \$500K per year, only a subset of the above strategies will be implemented, and therefore only some of the envisioned goals will be achieved by the end of Year 4.

PART 11: MEASURABLE OUTCOMES: Describe the network's measurable outcomes for Years 3 and 4. Such outcomes may or may not be the same as those specified in Part 1. Please also define annual targets where appropriate. Such targets and milestones should be attainable while at the same time appropriately ambitious.

Measurable Outcome Targets and Achievements For Year 3:

Performance Area/Indicator	Target
Membership	
Increasing membership over the course of 4 years	Membership increases 10% over Year 2, with an emphasis on ensuring that members have the opportunity for active participation in network programs.
Full committees and working groups	At least three working groups/committees, comprised of both researchers and students.
Attendance at annual meetings and workshops meets planning committee expectations	At least 125 participants at AGM, a 12% increase over Year 2.
Website actively used and positive feedback on other Network communications products as determined by surveying participants at the AGM in November	At least a 10% increase in the number of hits over December 2006.
Regular growth of the inventory of researchers and infrastructure in BC plus evidence of members accessing this inventory	At least 50% of applicable researchers in members' database are fully listed.
Development of grey literature database has added value for members	At least 50% of applicable researchers in members' database have grey literature listed.
Evidence of use of grey literature database by members	At least 100 hits on the grey literature database.
Grant Success	
Full allocation of research development grants to support research project development, collaborative research and capacity building initiatives	Grant approvals are at least 80% of budget allocation.
Increasing rate of success in funding of projects supported by Network development grants	Based on grant reports due one year after grant awarded.
Collaboration	
Steady annual increase in the number of new collaborations over 4 years	Based on members' survey.
Evidence of sharing of expertise and infrastructure	At least 100 hits on the shared resources fields of the members' database. An increase in the number of hits counted on FRED.
Evidence of new collaborative efforts across geographical distances, institutional and departmental boundaries	Number of places, institutions and departments reflected in approved BCEOHRN Research Capacity Development Grants increases year over year.
Training	
Regular and sufficient attendance of members at training workshops	At least 75 participants at the 2007 KTE workshop.
Members involved in offering mentorship opportunities for students and junior researchers	At least 10% of applicable researchers in members' database participate in Mentoring Program.
Develop and convene State of the Art and Grant writing workshops in the reporting period, or shortly thereafter.	Workshop development is clearly demonstrated.
Knowledge Transfer	
Annual increase in use of knowledge transfer by Network members.	Count of requests for assistance made to KTE specialist.
Increasing rate of media stories of research success in EOH in BC.	Media monitoring counts.
Creation of a network website that acts as a clearinghouse for information on studentships, funding opportunities, searchable network inventory, links to other environmental and occupational health websites, links to online datasets useful to network members and recent research abstracts.	At least six new web pages added to BCEOHRN.ca, including more robust information on KTE.
Outreach and communication activities, for example research reports produced in lay language for easy reading by research users.	Count of reports requested to be modified for this purpose.

Measurable Outcome Targets and Achievements For Year 4:

Performance Area/Indicator	Target
Membership	
Increasing membership over the course of 4 years	Membership increases 10% over Year 3.
Full committees and working groups	At least three working groups/committees, comprised of both researchers and students.
Attendance at annual meetings and workshops meets planning committee expectations	At least 150 participants at AGM, a 17% increase over Year 3.
Website actively used and positive feedback on other Network communications products as determined by surveying participants at the AGM in November	At least a 20% increase in the number of hits over December 2007.
Regular growth of the inventory of researchers and infrastructure in BC plus evidence of members accessing this inventory	At least 70% of applicable researchers in members' database are fully listed.
Development of grey literature database has added value for members	At least 70% of applicable researchers in members' database have grey literature listed.
Evidence of use of grey literature database by members	At least 200 hits on the grey literature database.
Grant Success	
Full allocation of research development grants to support research project development, collaborative research and capacity building initiatives	Grant approvals are at least 80% of budget allocation.
Increasing rate of success in funding of projects supported by Network development grants	Based on grant reports due one year after grant awarded.
Collaboration	
Steady annual increase in the number of new collaborations over 4 years	Based on members' survey.
Evidence of sharing of expertise and infrastructure	At least 200 hits on the shared resources fields of the members' database. An increase in the number of hits counted on FRED.
Evidence of new collaborative efforts across geographical distances, institutional and departmental boundaries	Number of places, institutions and departments reflected in approved BCEOHRN Research Capacity Development Grants increases year over year.
Training	
Regular and sufficient attendance of members at training workshops	At least 100 participants at the 2008 educational event.
Members involved in offering mentorship opportunities for students and junior researchers	At least 15% of applicable researchers in members' database participate in Mentoring Program.
Develop and convene State of the Art and Grant writing workshops in the reporting period.	At least 75 participants at such workshops held in the reporting period.
Knowledge Transfer	
Annual increase in use of knowledge transfer by Network members.	A 10% increase in the count of requests for assistance made to KTE specialist.
Increasing rate of media stories of research success in EOH in BC.	A 10% increase in media monitoring counts.
Creation of a network website that acts as a clearinghouse for information on studentships, funding opportunities, searchable network inventory, links to other environmental and occupational health websites, links to online datasets useful to network members and recent research abstracts.	At least seven new web pages added to BCEOHRN.ca, including more robust information on KTE.
Outreach and communication activities, for example research reports produced in lay language for easy reading by research users.	A 10% increase in the count of reports requested to be modified for this purpose.