

Michael Smith Foundation for Health Research Infrastructure Programs Review

Review Process

This review was conducted by a panel of six reviewers on November 6 and 7 at the MSFHR offices in Vancouver. The review was based on written material provided to the panel prior to the visit and on a series of meetings with stakeholders during the visit. This report by the panel is for the use of the MSFHR Strategic Planning Group and for the MSFHR Board.

The Review Panel

Chair: Dr. Ron Worton, CEO and Scientific Director, Ottawa Health Research Institute
Dr. Tom Feasby, VP Academic Affairs, Univ. of Alberta/Capital Health
Mr. Dan Florizone, CEO, Five Hills Health Region, Saskatchewan
Dr. Marielle Gascon-Barre, VP and Scientific Director, FRSQ, Quebec
Dr. Jacques Magnan, VP Programs, AHFMR, Alberta
Dr. Dorothy Pringle, Professor Emeritus, Faculty of Nursing, Univ. of Toronto

Objectives of the Review

1. Review current award programs
 - definition and differentiation
 - funding levels and terms, process to determine funding levels
 - measures to assess financial, operational and governance accountability
 - measures to assess impact/ROI/added value
2. Evaluate current award programs
 - overall program effectiveness
 - contribution and value of each program
3. Identify opportunities and risks for greater integration
 - opportunities for greater integration
(maximize collaboration / sharing and minimize duplication)
 - risks of closer integration
4. Identify gaps or opportunities missed
 - changes/refinements to enhance the mission of MSFHR

Award Programs Reviewed

The review focused on four Award Programs:

- I. Institutional
- II. Research Units / Teams
- III. Networking
- IV. Health Services and Policy Research Support Network

Background Materials Provided to the Panel

- Review structure and objectives including issues for discussion under each objective
- Description of each of the four award programs
- Updates on each program including an analysis by MSFHR staff of the progress reports submitted by each awardee
- Results from an Ipsos-Reid survey of 51 stakeholder interviews
- Results from a web based survey completed by 64 stakeholders
- A report from the Research Advisory Committee of the MSFHR
- Guidelines and instructions for each of the program applications

Summary of Recommendations

The main recommendations are summarized here and the basis for each is more fully documented in the assessment by the Review Panel.

General Recommendations Pertaining to the Infrastructure Program as a Whole

Recommendation 1 MSFHR should establish a task force of MSFHR senior staff and stakeholders to design a new report form that will allow MSFHR to capture the data required to ensure financial, operational and governance accountability, and with the added feature of capturing anecdotal data on potential long term benefit.

Recommendation 2 MSFHR should develop Memoranda of Understanding with institutions receiving MSFHR funding to ensure the timely processing of grants, institutional transfers, REB approval and animal care certificates. The MOU should be signed by a key responsible person in the Institution.

Recommendation 3 MSFHR should establish a set of guidelines with regards to flexibility on the use of funds, and in particular should set limits on the amount of money that can be used for mini-grants and on the eligibility criteria for mini-granting activities.

Recommendation 4 MSFHR should establish a group to design and execute a project to capture ROI for the province. This should be done in collaboration with other provincial and federal health research authorities.

Recommendation 5 MSFHR should develop a sustainability plan with two components – a plan endorsed by government for sustainability of the MSFR itself, and a plan to ensure that key elements of the infrastructure program, once established, become enshrined in the base budgets of the funded health authorities and institutions.

Recommendation 6 MSFHR should work with the BC government, the health authorities, the academic institutions and the research community to achieve a greater strategic alignment of infrastructure development between the various stakeholders involved in health research in the province.

Recommendations Pertaining to Specific Programs

Recommendation 7 For the Institutional Infrastructure Program, MSFHR should facilitate collaboration between universities and hospitals by encouraging a bundled set of applications from related institutions, and providing funding to each component based on the number of full time health research staff, the need for capacity building and the quality of the business plan for use of the infrastructure award.

Recommendation 8 As MSFHR goes forward with new Institutional Infrastructure competitions there will be demand from institutions other than the eight selected for funding in round 1. It will be important for MSFHR to be very clear in its definition of what constitutes an eligible institution, in view of, or in anticipation of, the expansion of health research activities in colleges and other health research organizations.

Recommendation 9 MSFHR should convene a group to examine to what extent and under what circumstances infrastructure funds are used for release time from teaching and service. Continued use of infrastructure funds for this purpose should be re-evaluated in light of the findings.

Recommendation 10 For the Networks Program MSFHR should insist on a single designated leader who will accept the responsibility for the success of the Network. To ensure and accommodate shared responsibility across the Network, MSFHR should require that Network activities be subject to approval from a Research Planning Committee made up of Network investigators. To assist the process MSFHR should consider providing a governance template to be developed in collaboration with the Networks.

Recommendation 11 In collaboration with the Networking Program directors MSFHR should establish a template for a MOU (i.e. mission, governance, directorship, membership, advisory committees, policy for conflict resolution, etc.) that would be signed by the Network and by the Institutions that have Network members.

Recommendation 12 MSFHR should seek additional funding from the province to support technology platforms at a level where they will begin to have a significant impact on the R and D capacity of the province.

Recommendation 13 For the Health Authority Capacity Building Program, MSFHR should develop mechanisms for health authorities to work more closely with the academic institutions that relate to them, to ensure that they derive maximum benefit from the full spectrum of infrastructure funding. The CEO's of the Health Authorities should be engaged in this activity.

Recommendation 14 MSFHR should develop a mechanism to better integrate the Investigative Teams with Research Units. The rationale is to bring the significant experience and expertise of the Research Units to the Investigative Team program and to instil the investigative team approach into the Research Unit program.

Assessment by the Review Panel

Overview

This review follows on two previous assessments of the Foundation in the fall of 2006. The first was an Ipsos Reid poll of 51 stakeholders and the second a web based questionnaire completed by 64 respondents. Our general findings, based on meetings with all groups of stakeholders, are consistent with those two surveys. Overwhelmingly stakeholders are very positive about the MSFHR, and agree that it is heading in the right direction to reach its objective of creating a vibrant and sustainable health research environment in the province.

There are, however a few growing pains that need to be rectified, especially related to reporting on accountability and impact from awardees. In this regard, many of our conclusions are in agreement with the recommendations from MSFHR staff following review of the latest set of progress reports. In addition, the panel did identify some potential opportunities for program integration and simplification.

A key issue for many stakeholders is sustainability of the overall program and of the individual award programs. The research community seeks reassurance from government that it supports the Foundation and its programs for the long term. Stakeholders referred to the “dark days” preceding the Foundation and want assurance that BC will not revert to those days.

Positive points emerging from the review include:

- Added value is considerable – the only source of infrastructure funding in BC
- The funding is beginning to have an impact on health research capacity
- MSFHR staff are responsive and generally appear to act for the good of the research enterprise
- MSFHR is increasingly being seen as the main provincial resource for health research and therefore plays a larger role than just giving grants. MSFHR Programs have a driving effect on the BC health research agenda.

Overarching Issues emerging from the review include:

- Sustainability, at the level of the MSFHR and the individual programs
- In reporting of progress, there is a need to separate accountability from added value of the program
- Accountability needs to be standardized and simplified in consultation with stakeholders.
- Added value needs to be assessed at two levels
 - the level of the whole program in terms of the value to the province
 - the level of the individual award in terms of its contribution to enabling a rich research environment
- Overlap between separate funding programs needs to be examined and rationalized – potential opportunities for integration are identified

Organization of the Detailed Assessment

Part A of this assessment relates to the Infrastructure Program as a whole, and makes recommendations of an overarching nature.

Part B of the assessment relates to the individual award programs and makes recommendations relating to those programs.

Part A. The Infrastructure Program as a Whole

The Current Award Programs

Definition. Overall the infrastructure award programs are considered to be well described and adequately differentiated from one another. The materials provided to the applicants and the application procedures are comprehensive and clear. The emphasis on thorough peer review of all applications gives the programs excellent credibility and transparency.

Funding levels. Funds available for the four programs are modest, but nevertheless effective. In the two surveys and in the panel's discussions with stakeholders the issue of funding levels never surfaced as a major issue. Several stakeholders remarked that the modest level of funding presented somewhat of a challenge, but this was balanced by an overwhelming view that the funds were critical because no other agency provided funding for infrastructure, and that the modest infrastructure provided went a long way.

Despite this general acceptance of the funding levels as adequate, there was an often-stated concern, shared by the panel, that the available resources may be spread too thin, minimizing the potential impact of the awards programs. Some of our recommendations with regard to consolidation of programs may address this concern.

The Panel is in agreement with MSFHR assumptions about the needs for the future and considers a modest increase in funding, particularly for development of technology platforms as appropriate and necessary for the Program to meet its objectives. Even more important is the need for this funding to be sustainable and this is the subject of one of the key recommendations below.

Accountability. Financial, operational and governance accountability were discussed at length with all stakeholder groups. While all groups recognized and understood the need for awardees to be accountable to the MSFHR and for the MSFHR to be accountable to government, there was a general agreement that the reports designed to measure accountability were at times confusing, inconsistent and overly detailed. It was frequently stated that the timelines for producing a report were unrealistic.

It was clear to the panel, and confirmed by MSFHR staff evaluation of the progress reports, that awardees were often unable to distinguish between the need to report on short term outputs (e.g. people hired, core facilities established, workshops held) and long term outcomes (e.g. increase in research publications, patents, knowledge transfer). This may be due in part to lack of clarity in the report templates provided by MSFHR. When

asked, many stakeholders expressed a willingness to work with MSFHR staff on designing better report templates. (Recommendation 1)

Recommendation 1. MSFHR should establish a task force of MSFHR senior staff and stakeholders to design a new report form that will allow MSFHR to capture the data required to ensure financial, operational and governance accountability, and with the added feature of capturing anecdotal data on potential long term benefit.

Another aspect of accountability is the adherence to good accounting principles, timely establishment of research accounts and execution of fund transfers, and rigorous adherence to approval (where required) from the appropriate Research Ethics Board and / or Animal Care Committee. To ensure that the institutions understand the expectations of them in this regard, and are held accountably for obtaining the necessary approvals before releasing funds to the awardees, a Memorandum of Understanding with each organization receiving MSFHR funds would be very helpful. (Recommendation 2)

Recommendation 2. MSFHR should develop Memoranda of Understanding with institutions receiving MSFHR funding to ensure the timely processing of grants, institutional transfers, REB approval and animal care certificates. The MOU should be signed by a key responsible person in the Institution.

A third aspect of accountability is adherence to the use of funds for the stated purpose. This is balanced by the need for flexibility when the needs change or when other funds are identified to cover some of the costs initially intended to be borne by the MSFHR award. Several stakeholders commented on the value of flexibility without micro-management by MSFHR. While flexibility and responsiveness are seen as strengths of the MSFHR, inflexibility over some changes is still seen as impeding the development of research and the use of the resources from the infrastructure programs. This highlights the need to be clear on where flexibility is allowed and where it is not. Mini-grants are a case in point because these were used by several awardees in several programs as a way of stimulating research. The panel was not convinced that these awards are the best way to stimulate research. Operationally, we strongly support the fact that the MSFHR should be centrally and appropriately directive in the use of its infrastructure funds for mini-granting purpose. (Recommendation 3)

Recommendation 3. MSFHR should establish a set of guidelines with regard to flexibility on the use of funds, and in particular should set limits on the amount of money that can be used for mini-grants and on the eligibility criteria for mini-granting activities.

Impact. With regard to measurement of impact in terms of research outcomes, everyone agreed that this was a real challenge, in part because of the short time that the MSFHR has been in existence, but also because return on investment (ROI) in health research is notoriously difficult to measure. The panel suggests that it might be easier to measure this at the level of the MSFHR Program as a whole (including salary awards, infrastructure awards, and new opportunities/partnership awards) rather than at the level of the individual infrastructure programs or individual grants.

To this end it might be worth considering reports from awardees that focus on short term accountability, but with the opportunity to comment on significant outcomes (e.g. hiring of a grants facilitator resulting in one or more successful grant applications that would not have been submitted without the services of the facilitator). At this level the reporting should focus on outcomes that are clearly attributable, in whole or in part, to the MSFHR awards. Such anecdotes can form part of a comprehensive report to government from the MSFHR once enough of them have been documented. (see Recommendation 1)

In addition to these reports the MSFHR might consider establishing a group to design and execute a project to capture ROI for the province. The panel was impressed with the chart showing CHIR grants coming to BC pre- and post-MSFHR, strongly suggesting that the MSFHR has had a tangible impact in bringing more federal health research dollars to the province. More global analysis of this kind will be helpful in making MSFHR accountable to government and to the people of the province. Part of the ROI project should also attempt to capture economic benefit such as licensing agreements and spin off companies, as well as health care benefits such as new products and services, redesigned health care services, and reduction in costly procedures of dubious value.

These outcomes are not easy to measure and will require investment of a portion of MSFHR funds to support the ROI Project. In some of the stakeholder discussions it was suggested that expertise exists in the province to assist in this project and that clinical epidemiologists and health economists, for example, might be willing to work with MSFHR staff to develop the project. Since this issue is being faced by every province and by the whole country, the BC attempt to capture ROI should be part of a larger national and inter-provincial initiative. (Recommendation 4)

Recommendation 4. MSFHR should establish a group to design and execute a project to capture ROI for the province. This should be done in collaboration with other provincial and federal health research authorities.

Evaluation of Current Award Programs

Overall the panel is impressed with the achievements to date in the Infrastructure Program. Some of the initiatives were rolled out very soon after establishing the MSFHR and are already having a significant impact on research infrastructure in the province. Other programs are more recent and significant impact is not yet apparent. Perhaps the most important point is that the MSFHR is the only source of funding for infrastructure that “greases the wheels” of the research enterprise and this is already having a major impact in reducing the frustration of the scientific community that characterized the pre-MSFHR era. We heard this from all stakeholders, in voices that were passionate in emphasizing the huge difference that these funds have made.

The panel concludes therefore that the MSFHR Infrastructure Program has been enormously effective in doing what it intended to do, which is to provide infrastructure that assists the health research community to achieve its objectives of more and better health research in the province. How and to what extent this translates into economic or health benefit for the province is too soon to evaluate. Recommendation 4 deals with this objective.

At the same time we heard from many stakeholders that their major concern was sustainability. Largely these concerns were in regard to the sustainability of MSFHR itself under the current funding mechanism which relies on periodic end-of-year funding rather than being built into the base budget. A model for sustainability needs to be developed with government to assure the scientific community that this important funding mechanism will not be short lived. (Recommendation 5 - below)

Sustainability was also discussed at the level of the individual programs. We heard from at least one institution and one health authority that the infrastructure funding was so important that if MSFHR funding was lost they would feel compelled to find funds from elsewhere in their budgets to support this activity. In fact, one health authority stated that it was budgeting to take over the research infrastructure costs currently funded by MSFHR, and use future MSFHR funding to expand the research infrastructure beyond the current level. The panel was impressed by this and considered that it showed real commitment to using research to inform the delivery of health care. In fact, the panel wonders if this should be adopted as an expectation for all health authorities once the value of the infrastructure has been verified. (Recommendation 5)

Recommendation 5. MSFHR should develop a sustainability plan with two components – a plan endorsed by government for sustainability of the MSFHR itself, and a plan to ensure that key elements of the infrastructure program, once established, become enshrined in the base budgets of the funded health authorities and institutions.

Opportunities and risks for greater integration

The panel heard consistently that there was little integration between the various infrastructure programs. Institutions receiving awards were not integrating with the health authorities to which they belong nor were they integrating with the research units or teams within their institutions. Similarly the health authorities were not fully aware of the units and teams within their authority, and not taking advantage of these other awards. Networks were by definition integrated across the province but not with the Institutions and or health authorities to which their members belong. While the panel understands that these are early days for MSFHR, it does appear that the time is right for a major effort to develop a strategic alignment of the various components of the infrastructure program to capitalize on any synergy that can be obtained from such alignment. (Recommendation 6)

Recommendation 6. MSFHR should work with the BC government, the health authorities, the academic institutions and the research community to achieve a greater strategic alignment of infrastructure development between the various stakeholders involved in health research in the province.

At the same time the panel repeatedly heard that the MSFHR is having a significant driving effect on the research enterprise in BC and that this alone places it in a leadership role in the province. Therefore the panel believes that the effort to develop a strategic alignment of the various research organizations in the province will be welcomed by the research community as a logical outgrowth of MSFHR activities.

In addition to this general approach to develop integration and alignment, the panel notes that certain pairs of infrastructure programs might benefit from a more detailed integration of their programs, perhaps even a full merger of the programs. These pairs include:

1. Integration of Institution Program with Health Authority Capacity Building Program
2. Integration of Research Units and Teams with Health Authority Investigative Teams

A more detailed assessment of the potential for integration is found in the next section on the individual programs.

Gaps or opportunities missed

The Panel notes that MSFHR has recently initiated a new program to expand provincial networking through the development of technology/methodology platforms. The Panel considers this to be an important investment in provincial infrastructure but is concerned that the amount of money available for it is insufficient to meet the needs of the program. We therefore support the MSFHR in its intent to seek additional funds from government to expand this program. A recommendation to this effect is found in the section below dealing with this resource.

Part B. Individual Infrastructure Programs

1. Institutional Infrastructure Awards Program

The Current Award Program

The Institutional Infrastructure Award is one of several initiatives within the Michael Smith Foundation's portfolio of Infrastructure Program that aims to help create a vibrant and sustainable health research environment in BC. Like the other Infrastructure programs, it aims to support the research enterprise in the province so that it is recognized for its excellence, is responsive to BC's health needs, and contributes to BC's economy.

A single review/competition process was held to define the levels of support to be offered to institutions. In 2002, BC's four major universities and four major teaching hospitals were invited to submit funding proposals for research infrastructure. These were the following organizations and they all received funding (albeit to different levels):

- British Columbia Cancer Agency
- Children's and Women's Health Centre of British Columbia
- St Paul's Hospital/Providence Health Care
- Simon Fraser University
- University of British Columbia
- University of Northern British Columbia
- University of Victoria
- Vancouver Coastal Health Research Institute

Following a formative review by an external panel, each institution was awarded a four-year MSFHR Institutional Infrastructure Award commencing July 1, 2003. The award amounts varied across institutions, depending on several factors including the magnitude and excellence of existing and planned health research as determined by the formative review panel.

In general the panel is satisfied that the Institutional Program is well described, the funding is adequate for the first phase and the value to the funded institutions is abundantly clear. There are some issues related to the reporting mechanism to assess accountability and impact as outlined below.

Evaluation of Current Award Program

Based on what we heard from the institutional representatives with whom we met, the panel's evaluation may be summarized as follows:

- The Institutional Infrastructure Program is of high value to all institutions who receive support. It is evident from the discussion that institutions which have used the resources from this grant would prioritize the activities supported/developed from the institutional grant ahead of other (even direct research) activities.
- Mostly MSFHR funding seems to be used as broad support for the institutional research environment (indirect research costs, mostly people who support the

research enterprise) rather than targeted towards specific initiatives, although there is variation in the use and some organizations have used the funds for recruitment and direct seed funding.

- All institutions are concerned about their ability to sustain the infrastructure should MSFHR withdraw or modify its support, although some institutions have put in place some cost recovery mechanisms which may play a role in long term sustainability of the institutional infrastructure derived activity. (see Recommendation 5)
- All institutions recognized the need for accountability so that MSFHR can demonstrate “measurable” impact; however the timelines and the details expected in reports are felt to be unrealistic and overly burdensome. There appears to be confusion between what is expected in terms of financial and operational accountability and reporting on outcomes measures or milestones for assessment of the overall objectives of the program. (see Recommendations 1 and 4)
- Institutions appreciate flexibility in the guidelines so that they can decide locally how best to use the resources provided, but expressed some concerns about the need to make specific requests to MSFHR when they want to make changes to the spending lines. (see Recommendation 3)

Opportunities and risks for greater integration

Stakeholders discussed the fact there is an absence of obvious relationship between the Institutional Infrastructure program and the majority of the other infrastructure programs. This lack of integration was at several levels.

- Institutions indicated a lack of integration between the Institutional Infrastructure grant they held and the Research Units/Teams or the Emerging or Planning grants held by members of the Institution. It will be important therefore for Institutions to work more closely with their research staff to integrate all the infrastructure grants into a comprehensive program of infrastructure support for the organization.
- This integration is particularly important across a family of institutions receiving Institutional Infrastructure Awards. A good example is the UBC family of teaching hospitals, in which there appeared to be little interaction between the parent and the members of the family. Indeed UBC was very vocal in expressing concern about the University having to compete with its affiliated research hospitals for infrastructure funding, and requested consideration for a more integrated approach by MSFHR.

The panel has some sympathy for the notion of coordination of the infrastructure grants across a large and complex organization like a University with multiple semi-independent research institutes or research-intensive hospitals. MSFHR might facilitate a coordinated approach by encouraging the University and their affiliated Hospitals/Institutes to submit a bundled set of proposals with integrated business plans for use of the infrastructure awards. To be clear, the panel is not advocating a single award to be administered by the University, but rather a set of awards in which the size of each award is based on the size of the health research enterprise (on a sliding scale), the need for capacity building and on the soundness of the business plan. (Recommendation 7)

Recommendation 7. For the Institutional Infrastructure Program, MSFHR should facilitate collaboration between universities and hospitals by encouraging a bundled set of applications from related institutions, and provide funding to each component based on the number of full time health research staff, the need for capacity building and the quality of the business plan for use of the infrastructure award.

- Several institutional directors with whom we met expressed concern about the next competition for funds and particularly whether or not additional institutions would be invited to seek funding. The panel agrees that this is an important issue and suggests that it needs to be addressed soon, in anticipation of the next round of funding. (Recommendation 8)

Recommendation 8. As MSFHR goes forward with new Institutional Infrastructure competitions there will be demand from institutions other than the eight selected for funding in round 1. It will be important for MSFHR to be very clear in its definition of what constitutes an eligible institution, in view of, or in anticipation of, the expansion of health research activities in colleges and other health research organizations.

- Major research hospitals with institutional infrastructure awards indicated a lack of integration between themselves and the Health Authorities to which they belonged. This was also commented on by the Health Authorities, some of whom were completely unaware of major infrastructure awards to hospitals within their jurisdiction, and a recommendation is included in the section on Health Authorities.

2. Research Units / Team Start-up and Team Planning Awards Program

The Current Award Programs

Research Units: The first competitions for Research Unit infrastructure grants were held in 2003 and 2004 allowing 2-3 years of follow up. Groups could apply for up to \$150,000 annually for three years (Category A: 3-10 qualified health researchers) or \$250,000 annually (Category B: >10 qualified health researchers). Letters of intent were reviewed by an external panel and successful ones were invited to submit full scale proposals.

Seven large and 18 small units were funded, most in the UBC orbit, for a total of 25 over the first two competitions. Most units supported research activities that spanned more than one CIHR pillar: eight of these units could be categorized as conducting health services research and of these, half indicated that they also conducted population-related research. Twelve focused on biomedical research or biomedical and clinical research (3 units), or biomedical and population health research (3 units). Overall, the results of the Research Unit program have been very successful, judging by the annual reports submitted by the units and the results of site visits by the MSFHR. The results from the telephone survey conducted by Ipsos Reid were also very positive. However, a number of issues were raised by these reviews which will be discussed in the next sections.

Team Start-up and Team Planning Awards: These are new programs in 2005. Team Start-up Awards provide funds of \$75,000 per year for three years to allow researchers

from different disciplines to form a research group focused on a particular theme. The competition is intended to support emerging teams to launch research initiatives, to build a supportive research environment, plan and initiate collaborative activities, increase their productivity and leverage funds from other sources. The Team Planning Award is a one year, one-time award of \$25,000 (with additional \$12,500 if matched by home institution) to enable groups of researchers to plan and develop a research team proposal.

Evaluation of Current Award Program: Research Units

The Panel met with 11 members of research units (including start up or planning award groups) and discussed their views of the strengths of the grants program, any issues they had with the initiative and their recommendations for improving it. Their comments and issues were put forward in a constructive manner and include:

- Feedback from participants was overall extremely positive. Many expressed how critical it was to have flexible infrastructure support. This support was not available from any other source and they did not know how they could manage without it.
- Key people, such as grant facilitators, technicians and statisticians, were hired and made the units more productive. The program helped to bring people together, and their funding as a unit gave them credibility and raised profiles with administrators.
- While there was some concern expressed by MSFHR staff that the amount of funding provided to the units may not have been enough, no complaints about inadequate funds were voiced by any of the representatives of the units with whom we met.
- The participants repeated that the MSHRF was very interested in them and was listening to their concerns.

Thus, the overall effectiveness of the program in supporting research teams is clear. However, a number of issues were raised including:

- It is difficult to measure the impact of the funding to date because of inconsistent and unclear metrics, problems with attribution and short time frame. Participants did not have a clear or consistent idea about what metrics would be best, but they were unanimous that this problem needed to be addressed and they were keen to participate in solving it. (see Recommendations 1 and 4)
- Annual Reports are burdensome, the second annual report being different in format from the first and more difficult to complete. A consistent template would facilitate completion and provide better year to year comparison. (see Recommendation 1)
- Virtually all units reported difficulty in hiring staff with the requisite skills within the short time frame expected. This was exacerbated by delays experienced by many units in having research accounts established and funds accessible to the researchers. (see Recommendation 2)
- There were concerns about inflexibility in the use of funds. Some people suggested that needs often change once the program is underway and that they needed to be able to change funding priorities readily. (see Recommendation 3).

- There is insufficient Knowledge Translation being undertaken by the units. There was little understanding of what constituted relevant KT and no consistent approach to measure it has. Consideration of what constitutes appropriate and effective knowledge translation from research units can be dealt with in Recommendation 4.
- Staff raised the issue of whether the saturation point had been reached in the number of research units that should be funded? This is difficult to answer but our impression is no: there is still room for more units.
- All units are seeking information regarding sustainability and whether they may apply for renewal. The lack of alternative sources of funds raises concern about the future of the units. While appreciating that MSF operates in the same sphere of uncertainty, they are anxious to have information as soon as possible. (see Recommendation 5)
- The need for funds to buy-out teaching or clinical service time varied considerably. This was more important for units that focused on clinical, health services and population health research, rather than units focused on biomedical science. The units that use funds to purchase research time value this opportunity greatly. Some members of the Panel were not convinced that this is an appropriate use of infrastructure funds, and further examination of the practise is recommended.

Recommendation 9. MSFHR should convene a group to examine to what extent and under what circumstances infrastructure funds are used for release time from teaching and service. Continued use of infrastructure funds for this purpose should be re-evaluated in light of the findings.

Evaluation of Current Award Program: Start-up and Planning Awards

The Team Start-up and Planning Awards are very new and the short time since implementation limited the available feedback. We interviewed 3 recipients and took note of comments in the web survey, Ipsos Reid survey and the site visits. Key points include:

- The feedback was all very positive. The recipients who attended the interview session suggested that these awards help the small and inexperienced groups and thus contribute to a better distribution of awards across the province.
- Some emphasized that it was important to partner with more established groups to learn from them. Some agreed that the use of formative reviews might be helpful.
- There is a concern regarding the Start-up awards that it is difficult to spend the money completely by the end of the one year because of delays in start up. The inexperience of some of these groups might also be a factor.

The panel supports the continuation of this program to broaden the distribution of vibrant multi-disciplinary teams across the Province.

Opportunities and risks for greater integration

There was virtually no relationship between the Institutional Awards and the Research Unit /Start-up/ Planning Awards programs. None of the awardees from the latter

programs had any sense that they benefited from the funding that flowed to their institutions. On the other hand, there is no indication from the way these different competitions were implemented that there was an intention that one should influence the others. The programs on the whole are running well on parallel tracks and at this still early stage of their existence, it is probably wise to maintain them as they are. Having said this, there is no question that both institutions and units will benefit from a greater alignment of research activities as suggested in Recommendation 6.

Another program closely related to the Research Units is the Investigative Teams supported under the Health Authority Infrastructure Program. Some thought might be given to further integration of this program with Research Teams, and this is discussed further in the section on Investigative Teams.

Gaps or opportunities missed

No major gaps or opportunities were identified in relation to the Research Units Program.

3. Networking Program

The Current Award Programs

There are two Networking Programs – the Health of Population Networks (HoPN) and the Technology/Methodology Platforms Program.

Health of Population Networks Program (HoPN): This Program aims at linking researchers across institutions, organizations and regions to build critical mass focusing on populations with specific health needs. Eight HoPNs were launched in January 2005 and each is presently receiving an award of \$250,000/year and have the opportunity to qualify for a “funding lift” of up to \$500,000 per year in year 3-4 based on performance.

The eight areas of focus include (1) child and youth, (2) environmental and occupational health, (3) mental health and addictions, (4) aging populations, (5) rural and remote health, (6) persons with disabilities, (7) aboriginal health and (8) women’s health.

Three of the Networking Programs (Mental Health and Addiction, Aging and Women’s Health) regrouped researchers already working in informal networks and can be considered “mature networks”. The other networks are still at the preliminary stages of establishing the essential links between researchers within their research community, a prerequisite to the planning of meaningful networking activities. Few seem to have focused on strategic and innovative initiatives at this time.

Technology/Methodology Platforms: Phase II of the Networking Program is the development of technology/methodology platforms. A call for expressions of interest in January 2006 elicited 38 responses, considerably more than expected, In May an external panel recommended nine potential platforms derived from 16 applicant teams be considered for funding. Each received \$50,000 to enable the preparation of a detailed business plan and these were submitted for consideration on December 1. These will be evaluated early in 2007 for funding to begin in April 2007.

Evaluation of Current Award Program (HoPN)

The Panel met with seven of the eight HopN Directors. As a group they were not as uniform in their views as some of the other groups interviewed by the Panel, perhaps because of the considerable heterogeneity of the Networks. Nevertheless there were a number of points on which all agreed. Key points include:

- Overall those present were pleased with the Networking Program and felt that the infrastructure grants were of great benefit to the research community and would stimulate an enhanced program of research in their respective areas.
- Networks seemed to appreciate that, due to their “virtual” nature, it is not an easy concept to grasp for many researchers and that the program may be more difficult to establish than more conventional structures such as units and teams. Related to this point, Networks had trouble spending their budget allocation in a timely fashion, in part due to the difficulty in hiring well trained staff. This suggests that staged funding geared to need may be appropriate.
- Some early measures of success for the Networks include recruiting members, establishing communication tools, hosting events, conferences and workshops, and mentoring young researchers and trainees. In addition, networking has started to give researchers accessibility to cutting edge technologies and platforms which should be reinforced by Phase II of the program.
- Attribution of outcomes to Networks is a particular problem for Networks because they are virtual structures which are grounded in institutions, research units and teams. Many of the outcomes will be attributed to these entities. It will be important therefore to ensure that the catalytic role of Networks is captured in their evaluation.

In addition, there were a number of areas in which the Panel has some concern for the HoPNs. These include:

- A clearer definition of the Networking Program should be made to better reflect the MSFHR vision of the Program. In future there may be some value in restricting Network status to a “mature community of researchers” with established links and a strategic vision. Less mature research communities might be considered for start-up awards to initiate networking activities before graduating network status.
- Because many HoPN initiatives are rather small (communication, meetings, mini-granting activities) there is a concern that these activities must be ramped up a notch. In the next 2 years, Networking Programs should aim at defining strategic initiatives and put in place the means to realize these.
- The HoPN Program is targeted at populations with specific health needs and requires a multi-disciplinary and even trans-disciplinary approach. This provides a privileged environment for training and mentoring as well as for the transfer and exchange of knowledge. This aspect needs to be reinforced with Networks as they mature.
- There is a tendency for Networks to want to duplicate research infrastructures (research units, teams, *etc.*), so there is a need to emphasize that funding is for the purpose of establishing and maintaining Networking infrastructure, and not for activities that might be undertaken by individual researchers, units or teams already in

existence. Such initiatives should be strategic in nature and targeted at major health concerns in British Columbia.

- Many HoPNs are engaged in mini-granting activities. While mini-grants may be necessary to launch strategic initiatives or to establish the proof of concept for innovative/high risk initiatives, the latter should be aimed at the network's objectives and not at individual researchers. MSFHR identification of specific criteria for mini-granting activities is a part of Recommendation 3.
- Several Networks have co-leaders, and in one case a multiple leadership model. Also there have been a number of leadership changes in the 20 months since the Program began. Multiple leadership and rotating leadership is detrimental to the Program in our view. We recommend that MSFHR insist on a single leader for each Network, and that this person be responsible for the success of the Network. At the same time the Panel recognizes that a strong leader working alone may take the Network in a direction that is not supported by a majority of the members. We suggest that this can be avoided by having a Research Planning Committee, chaired by the leader, with a membership that reflects the diverse interests of the Network. (Recommendation 10)

Recommendation 10. For the Networks Program, MSFHR should insist on a single designated leader who will accept the responsibility for the success of the Network. To ensure and accommodate shared responsibility across the Network, MSFHR should require that Network activities be subject to approval from a Research Planning Committee made up of Network investigators. To assist the process, MSFHR should consider providing a governance template to be developed in collaboration with the Networks.

- Because Networks are new and relatively unfamiliar to the research community, there may be value in having a signed agreement or MOU with each Network to outline expectations, governance structure, membership criteria and other aspects of Network management such as conflict resolution. The federal Networks of Centres of Excellence might provide a model for such agreements. (Recommendation 11)

Recommendation 11. In collaboration with the Networking Program directors MSFHR should establish a template for a MOU (i.e. mission, governance, directorship, membership, advisory committees, policy for conflict resolution, etc.) that would be signed by the Network and by the Institutions that have Network members.

Evaluation of Current Award Program (Technology/Methodology Platforms)

Since this initiative is quite new there was little discussion about them and no basis for a proper evaluation. The only concern to the Panel is the fact that there is relatively little money for this initiative (\$3 million) and yet there is a very large need for high quality technology platforms. With nine applicants selected to go forward there will not be enough money to fund them all at a meaningful level. The panel thinks that this is such an important part of the provincial infrastructure that it should be funded at a level considerably above \$3 million, with initial funding for equipment as required and then a base budget annually for each platform. (Recommendation 12)

Recommendation 12. MSFHR should seek additional funding from the province to support technology platforms at a level where they will begin to have a significant impact on the R and D capacity of the province.

Opportunities and risks for greater integration

- The Networks were not very familiar with the other infrastructure programs but supported the need to connect Networks with the Research Units and Teams. In addition there is little involvement of Health Authority researchers in the Networks. Greater involvement of Health Authorities might facilitate more opportunity for multidisciplinary and translational research and knowledge transfer to the Healthcare System. Strategic alignment (Recommendation 6) may contribute to this integration.

Gaps or opportunities missed

No major gaps or opportunities were identified in relation to the Networking Program, except for the need to further develop the Technology/Methodology Platforms.

4. Health Services and Policy Research Support Network

The Current Award Program

This portion of the MSFHR Program is funded with restricted funding from the Ministry of Health to support health system redesign and innovation. There are two award programs in the Health Services and Policy Research Support Network - the Health Authority Capacity Building (HACB) Program and the Investigative Team Awards.

Health Authority Capacity Building (HACB) Program: This Program is one of four programs endorsed by Leadership Council and approved by the MSFHR Board to be offered through the Health Services and Policy Research Support Network (HSPRN). The purpose of the program is to begin developing a basic platform of research resources in all six Health Authorities to facilitate their ability to engage effectively in local, regional and provincial research, evaluation and planning activities.

Health Regions were invited to submit a vision and funding plan to the HSPRN Steering Council. The award amounts varied from \$350,000 to \$563,000 in response to the variation in research capacity. Funding was provided January 2005 for a 36 month term.

The panel was generally satisfied that this program was well defined, the funding is adequate and the value to the individual health authorities was made abundantly clear.

Investigative Team Award: The purpose of HSPRSN Investigative Teams is to support teams of researchers and policy/program decision makers to develop and implement a program that provides for original research as well as capacity building and knowledge translation in one or more of the following categories: Acute Care Redesign; Chronic Disease Management; Health Human Resources; Home and Community Care; Mental Health. Following a letter of intent and request for full proposals, five investigative teams received one time funding in the amount of \$100,000 along with \$50,000 in seed funding - effective October 1st, 2005.

The panel is satisfied that the Investigative Team Award is well described and that the value to these teams is apparent.

Evaluation of the Current Award Program (HABC Program)

We heard from the HSPRN Steering Council, Health Authority Representatives and representatives of academic institutions, and each had a quite different perspective on the success of the Program. Key points may be summarized as follows:

- The HSPRN Steering Council described coming together in a ‘unique’ forum made up of Health Authorities, Government and Academic Institutions for the purpose of research capacity building. The varied perspectives forced participants to think differently. Early meetings were described as a process of trust building, relationship building and figuring out how to interact while deciding how to proceed.
- Health Authority representatives described variation in their research capacity – with some Health Authorities experiencing more significant impact from the HCAB program than others – based upon their starting point. Strategy variations amongst regions reflected this. The key role of MSFHR in pulling together the people responsible in each region for capacity building was acknowledged.
- The Ministry described significant system changes in past years, and Ministry-dedicated resources to evaluate the impact of these changes (to influence course corrections where required). HACB has resulted in improved understanding and alignment of the Ministry, Health Authorities and Academic Institutions. The Ministry acknowledged that the importance of their involvement in the infrastructure programs relates to their interest in increased health services capacity.
- Academic institutions indicated that the goal of integrating research into decision-making, while supported, has not been achieved, and in some cases has been prevented. They described increased separation between research institutions and Health Authorities. Several Health Authorities have moved to models of decision support that are more about number crunching than any significant focus on research support for evidence based decision making. Research institutions further indicated that separate research units have been developed by Health Authorities instead of capitalizing on the considerable research capacity of the academic institutions. (i.e. the original intent of the HACB Program) (see Recommendation 12 below)

On many aspects of the Program there was consensus and many of the concerns were similar to those identified in the Research Units, Institutions and Networks. These include:

- Funding sustainability. The panel heard comments regarding the need for Health Authority participation in funding. Some Health Authorities and Research organizations have made a funding contribution to capacity building above HACB funding – but these amounts are not being tracked by MSFHR. (Recommendation 5).
- Flexibility. Stakeholders discussed an interest in balancing accountability with an appropriate level of flexibility - through clearly articulated plans and a process for course corrections where required. (Recommendation 3).

- Accountability, including the need for clearly articulated expectations in the form of funding agreements or MOUs. It was acknowledged that measurement of success is difficult to establish with this program because upfront capacity building is largely process and relationship focused. Attribution of overall success to various strategies is a challenge. The panel also heard that the reporting and accountability framework needs to be balanced with funding amount (cost/benefit). (Recommendations 1 and 4)
- Turnover of leadership requires re-orientation of new leaders by MSFHR to their purpose, their programs and progress. The MSFHR website – based upon funding envelopes as opposed to program priorities – was cited as a difficult site to use for learning about MSFHR Programs. This needs to be addressed.
- Participation by decision-makers within the Health Authorities and institutions was not evident following funding approval. They did not appear to play a key and integral role beyond initial program development and making the initial funding request. This was considered a weakness of the Program.
- One Health Authority indicated that the infrastructure funding was of sufficient importance to build into the base budget, thereby ensuring its continuation and creating opportunities for future MSFHR funding to be directed at new initiatives. The panel thought that this might be a model to be adopted by other Health Authorities for key infrastructure elements. (Recommendation 5)

Opportunities and risks for greater integration

- The intent to forge linkages/partnerships and alignment between Health Authorities Research Institutions and the Ministry was considered important. It was suggested that MSFHR might facilitate networking among those working on the capacity-building projects to share successes and lessons learned. It was also suggested that MSFHR might facilitate mechanisms to bring staff from Health Authorities and institutions together for information exchange and training. (Recommendation 13)

Recommendation 13. For the Health Authority Capacity Building Program, MSFHR should develop mechanisms for health authorities to work more closely with the academic institutions that relate to them, to ensure that they derive maximum benefit from the full spectrum of infrastructure funding. The CEO's of the Health Authorities should be engaged in this activity.

Gaps or opportunities missed

There were no gaps or opportunities identified with respect to the HABC Program.

Evaluation of the Current Award Program (Investigative Teams)

- The Panel met with representatives of the Health Services and Policy Research Support Network and representatives of three of the teams. Unlike virtually all the other infrastructure programs, the Panel heard complaints from the HSPRSN about this program. Importantly, these complaints were not about the research teams or the research that was being conducted, but rather about the lack of information about the

program and about the activities of the research teams available to the Health Authorities. The Health Authorities, with the exception of one, seemed to have little knowledge about what, in fact, the Investigative Teams were doing and how it was suppose to contribute to their functioning.

Despite this general disconnect between the Health Authorities and the Investigative Teams there were several points worth highlighting.

- The teams seem good and have made substantial progress in the short time available but it is too early to evaluate their progress properly. A strength of the Investigative Teams from the perspective of the Health Authorities is that it gives them more ties with academia and researchers in their regions. And MSFHR grants allowed the stakeholders to undertake projects that no other granting system allowed them to do.
- The program goals are very broad, as exemplified by the five priority areas. Yet, the funded programs are small and very focused, making it difficult to have much impact upon the broad overall issues.
- The other major limitations are the small amount of funding (\$150,000) and short time frame. These issues make the viability of the overall program questionable.
- There was confusion on the part of the HSPRSN about what this program was intended to contribute: was it new knowledge or knowledge transfer?

Several other points re-iterated concerns that emerged with other groups. These include:

- Sustainability of program funding.
- Accountability needs to be balanced with an appropriate level of flexibility.
- Timelines are too short to obtain the expected outcomes.
- The strategic theme based approach of the Investigative Teams Award Program should be preserved – as an example of strategic alignment and focus that might be relevant for other MSFHR infrastructure programs.

Opportunities and risks for greater integration (Investigative Teams)

- In some Health Authorities, the CEO did not appear to play an integral role beyond initial priority setting, program development and making the initial funding request. It is suggested that investigative teams make every effort to incorporate decision makers/providers into their teams to enhance the prospect of implementation of change and system impact.
- The concept of these teams has merit and the teams selected appear to be good. It is worth preserving the concept and these teams by considering merging this program with the Research Unit program. In fact, several of the current Research Units appear similar to the Investigative Teams. A clear connection between the Investigative Teams Grants and Research Units does not, however, appear to exist. There is an opportunity to bring considerable expertise, insight and experience of the Research Units to the Investigative Teams and the investigative team approach to the Research Units. (Recommendation 13)

Recommendation 14. MSFHR should develop a mechanism to better integrate the Investigative Teams with Research Units. The rationale is to bring the significant experience and expertise of the Research Units to the Investigative Team program and to instil the investigative team approach into the Research Unit program.