

# Assessing the Outputs and Outcomes of Alberta's Health Research Fund

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## Abstract

The Health Research Fund (HRF) has been administered by the Alberta Heritage Foundation for Medical Research (AHFMR) on behalf of Alberta's Ministry of Health and Wellness since November 1995. At the time of this study, the HRF provided two-year operating grants of up to \$50,000 per year for Alberta-based teams comprised of researchers and decision-makers/users of health research information. The Fund supports investigation into three areas: health services research; health technology assessment research; and population health research. In 2003, a consultant was engaged by AHFMR to assess the outputs (i.e., products or services stemming from the activities of the HRF) and outcomes (i.e., significant and external consequences attributable to HRF activities) of HRF research projects that were funded between 1996 and 2000. A survey of 110 HRF investigators was conducted in Fall 2003 and 52 surveys were returned. Survey results were supplemented with a small number of interviews of decision-makers who had been involved in HRF research teams. Significant outputs resulting from HRF projects were identified, including: presentations at local, national, and international venues to a wide range of audiences; publications; and training opportunities for health researchers (students, community members, and health professionals). Outcomes of HRF projects have included further research; influence on policy and practice; and other health system benefits. These descriptive results suggest that the HRF provides a platform for both the development of knowledge and its transfer and use by the health system.

## 1. Background

The purpose of the project was to develop an estimate of the outputs and outcomes of HRF research projects that were funded between 1996 and 2000. Outputs were defined as the products or services stemming from the activities of the HRF; outcomes as significant and external consequences attributable to HRF activities. Because HRF project outputs and outcomes are not systematically identified in HRF final reports to AHFMR, the information was gathered through a survey of primary investigators of the HRF projects funded during these years, and interviews with decision-makers and/or users of health research information who had been involved in HRF projects during the same period.

## 2. The Survey

The survey (based on the Buxton-Hanney model of payback<sup>1</sup> and a data collection matrix developed by the consultant and AHFMR) consisted of five main sections:

1. Project information;
2. HRF research products;
3. HRF project outcomes;
4. Ways to maximize the outcomes from HRF research; and
5. Closing comments.

The survey was sent by mail and email to 110 primary investigators. Seven investigators could not be located or did not complete the survey for other reasons (e.g., project not completed). The response rate was 52 out of 103 surveys (50%). Three interviews were conducted with decision-makers who had been part of HRF projects.

<sup>1</sup> Buxton, M., Hanney, S., Packwood, T., Roberts, S. & Youll, P. (March, 1999). Assessing the benefits from North Thames research and development: HERG Research Report No 25. Brunel University, Middlesex, UK: Health Economics Research Group.

## 3. Outputs

### Presentations

Investigators reported the following mean numbers of presentations: 2.7 presentations at local/regional events (n=38), 1.9 presentations at Canadian events (n=30), 3.3 presentations at international events (n=31), and 2.2 presentations at other events (n=16).

### Publications

| Type of Publication              | #          | Type of Publication                  | #          |
|----------------------------------|------------|--------------------------------------|------------|
| Article in peer-reviewed journal | 2.1 (n=27) | Public education material            | 2.7 (n=3)  |
| Reports                          | 1.5 (n=7)  | Article in non-peer-reviewed journal | 2.3 (n=3)  |
| Book chapters                    | 2.2 (n=5)  | Reviews                              | 3.0 (n=2)  |
| Editorials                       | 1.3 (n=4)  | Books                                | 1.0 (n=1)  |
| Professional education materials | 1.5 (n=4)  | Other                                | 3.1 (n=10) |

### Training

Investigators reported training a range of other individuals as part of their HRF projects including a mean of 2.7 students (n=32), 2.4 health professionals (n=28), 2.4 community members (n=7), and 1.9 other individuals (n=9). Nineteen (38%) respondents reported that participation in HRF research had led to (or was expected to lead to) additional qualifications for members of their HRF project team (e.g., students in graduate or medical school, graduate degrees, post-graduate work).

## 4. Outcomes

85% of the respondents (n=44) reported that their HRF project led to at least one of the outcome areas identified in the survey:

### Further Discovery/Knowledge Generation Activities

| Activities   | n (%)   |
|--|---------|
| Other research conducted by your team which builds on your HRF project                                   | 29 (58) |
| Research not conducted by your team which builds on your HRF project                                     | 14 (28) |
| Leveraging of additional funding to conduct research   | 14 (28) |
| Your project findings highlighted in the media   | 14 (28) |
| Journal citations of your work   | 12 (24) |
| Your project findings summarized in a source such as online medical resources, clinical newsletters etc. | 9 (18)  |
| Other  | 4 (8)   |
| No such activities occurred  | 10 (20) |

### Influences on Policy

| Policy influence   | n (%)   |
|--|---------|
| Impact on clinical practice (e.g., clinical guidelines)                                    | 13 (28) |
| Statements by national/regional/local policy makers  | 11 (23) |
| Improved information for political and executive directors                                 | 5 (11)  |
| Impact on policy documents/business plans  | 3 (6)   |
| Establishment of a working group to examine finding policy implications and implementation | 1 (2)   |
| Other  | 4 (9)   |
| No such activities occurred  | 24 (51) |

### Influences on Practice

| Behaviour change  | n (%)  | Sample Comments  |
|---|--------|--|
| Changes in practice or delivery (policy or procedure)     | 9 (43) | Gives a wider range of therapeutic options for admitting physicians and this has increased capacity for acute care in hospitals. Admitting practices have been influenced in considering this as a useful treatment option. (Health Services Research Project) |
| Changes in the level of awareness of health professionals | 6 (29) | Comfort level of physician checking with this difficult patient population is improved. (Health Services Research Project)   |
| Changes in prevention or screening activities             | 3 (14) | Newborn hearing screening more widespread and using health technologies we identified as cost-effective. (Health Technologies Assessment Project)  |
| Changes in technologies used                              | 3 (14) | Priority care physicians refer patients for tests using our technology. (Health Technology Assessment Project)   |

### Health System Benefits

| Health sector benefit       | N (%)   |
|-----------------------------|---------|
| Improved health             | 8 (17)  |
| Improved service delivery   | 6 (13)  |
| Cost savings                | 6 (13)  |
| New/improved treatments     | 6 (13)  |
| Other                       | 4 (9)   |
| No such activities occurred | 19 (40) |

## 5. Discussion

Funding from AHFMR appeared to be key to supporting this Alberta-based health research: 90% of respondents indicated that their project would not have proceeded without HRF funding. Most projects (95%) resulted in some form of output (i.e., publication, presentation, training). Most investigators (85%) reported at least one attributable outcome from their research, most commonly further research building on their HRF-supported study.

The study concluded that HRF funding was critical and important in: (a) contributing to the development of increased research capacity (e.g., training, additional qualifications); (b) projects contributing to knowledge generation/transfer (e.g., presentations, publications, further discovery/knowledge generation); (c) having an impact on evidence-based decision making (e.g., policy influences, decision makers) in Alberta; and (d) ultimately in having contributed to improved health (e.g., changes in the behaviour of practitioners, and health sector benefits).

There was also some evidence from the study, albeit preliminary and tentative, that research teams that included decision-makers were more successful than other teams at achieving outcomes related to knowledge generation, additional professional qualifications, and influencing health policy and practice.