Improving the Canadian Institute for Health Research's (CIHR) grant applications: An analysis of the policies governing the funding process

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Abstract

Objectives: This study seeks to examine the effectiveness of the CIHR policy reforms in obtaining their five objectives: to decrease application workload, to alleviate peer review burden, to improve peer review consistency, to adapt to the needs of scientific community and to reduce program complexity.

Methods: Health researchers in various disciplines were recruited and asked qualitative and quantitative questions via an online questionnaire. The data was analyzed using a SWOT approach and an exploratory policy analysis.

Results: Strengths of the reforms include lightened administrative burdens, clarity of application process, communication of the criteria of application submission. Weaknesses included delayed announcement timelines, outdated information policies and impersonal CCV applications. Opportunities include ….Threats include perceived bias towards researcher status, a perceived reduction in the objectivity of the peer review process, and low rate of successful applications.

Conclusion: The reforms have successfully attained two objectives: reduced administrative burden and complexity of administering funds, however more revisions and inquiries are needed to obtain all the outlined objectives.

Introduction

In 2014, the CIHR started undergoing rapid policy changes to the institutional framework governing grant applications. The CIHR launched two new funding opportunities, Foundation Grant and Project Grant, in an attempt to decrease application workload, improve peer review burden and consistency, adapt to the evolving needs of scientific community and alleviate program complexity. This study seeks to examine the effectiveness of the policy changes in obtaining the aforementioned objectives. The application process and decisional model used by the CIHR for choosing the projects to receive funding will be critically examined, and a set of policy improvements will be provided in order to better obtain the institution's objectives.

Research Question: According to health researchers, has the CIHR been successful in obtaining the objectives of the institutional reforms?

Methodology

An online questionnaire composed of both qualitative and quantitative questions was administered to health researchers in various disciplines. Eligibility criteria included the minimum submission of one grant application to the CIHR in the last five years. Participants were recruited using convenience and snowball sampling. The data was analyzed by identifying the strengths, weaknesses, opportunities and threats of the CIHR grant application and funding process, as perceived by health researchers. An exploratory policy analysis was conducted based on these findings to provide recommendations and areas for policy improvement.

Table 1 (right). Summary table of the strengths, weaknesses, opportunities and threats facing the CIHR grant application process as perceived by health researchers who had applied for a CIHR grant in the last five years (n=17).

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<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
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<td>Ease of submission: use of online CCV portal allows for ease and decreased time consumption in the submission process (n=8).</td>
<td>Fluctuating timelines: inadequate time from announcement date to application deadline is too short.</td>
<td>Researcher-specific grants: creation of grants for researchers at beginning-stages of career and in smaller-provinces (n=2).</td>
<td>Bias towards researcher status: bias towards well-established researchers as opposed to quality of grant applications (n=2).</td>
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<td>Clarity of process: instructions and processes for submitting application forms is simple (n=3).</td>
<td>Dated information policies: not all online journals and medical forum are acknowledged as legitimate sources of information (n=1).</td>
<td>New communication methods: provide online and in-person communication methods between CIHR and health researchers to support technical problems and provide clarification for program requirements (n=1).</td>
<td>Non-expert reviews: applications reviewed by researchers without sufficient knowledge in domain of study (n=2).</td>
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<td>Communication of expectations: detailed peer reviews are returned to applicants after rejection or acceptance into a grant program (n=1).</td>
<td>Standardization of the CCV system: standardisation does not allow researchers to highlight strengths of team and portfolio (n=2).</td>
<td>Lightened administrative burden: less recurrent budget applications and applications for renewing funds (n=1).</td>
<td>Inconsistency in peer reviews: new online peer review system jeopardizing quality and consistency of peer reviews (n=3).</td>
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Analysis

Quantitative and qualitative information collected and analyzed.

Figure 1. Diagram of study methodology and design.

Policy Recommendations

1. Increase the amount of time between the project announcement date and the application deadline in order to provide ample time for researchers to assemble and submit high quality applications.

2. Creation of new funding programs and professional development opportunities for researchers in smaller provinces and in early-stages of career. New opportunities are needed beyond simply having identifiers on Project Grant and Foundation Grant applications. Programs such as the Early-investigator pilot (ECI) program and New Investigator Salary awards need to be expanded to prevent the “halo effect”, whereby early-career investigators are dependent on co-authorship with well-established researchers to receive funds.

3. Update peer-review policy infrastructure to maintain quality assurance of peer-reviews with new online peer-review system.

Discussion

Findings:

- There was no significant relationship between age, gender, number of years of post-doctoral research experience, success with grant applications, domain of research and satisfaction with the grant application process.

Limitations:

- The sample size was too small to have enough power to detect trends and to generalize to the population.

- The use of convenience and snowball sampling may have generated response bias.

Contextualization:

The research study was conducted after the CIHR started a series of reforms in 2014. Many concerns were raised among health professionals regarding the reforms, so the goal in conducting this study is to provide a preliminary analysis of the most pressing concerns amongst health researchers to pinpoint specific areas of future research.

Future Research:

- The most recurrent threat and concern among health researchers was with regards to the peer review process, with 47% of researchers highlighting it as their greatest challenge in applying for a grant from the CIHR. This calls for a more exhaustive qualitative analysis into the bias generated through the process, the quality of the process and the effectiveness of the new online platform in obtaining these objectives.

Conclusion

The reforms have successfully attained two objectives: reduced administrative burden and complexity of administering funds, however more revisions are to reduce bias and conflict of interest in the peer review process, to improve quality of projects selected, to communicate project deadlines and ultimately, to meet the needs of the evolving scientific community.

References