6.3 How to write a successful grant application for a research study

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6.3.1 Learning objectives

To understand the general components of a grant proposal, by outlining some key principles and tips for success, including:

1. Components typically required in a grant proposal.
2. Process by which granting decisions are made.
3. Tips to increase the chances of success and avoid common mistakes.

6.3.2 Introduction

A grant is a monetary award given from a funding body; a grant application contains the details of a proposed project, and is used by the funding body to decide whether to award a grant. Grants are an important financial resource to support research, to enable training and to facilitate sharing of the latest evidence from research.

This chapter provides an overview of the steps for preparing and designing a grant application suitable for submission to a funding agency, with particular emphasis on research projects relevant to health emergency and disaster risk management (Health EDRM). The chapter discusses the components of a grant proposal, how to choose the most appropriate funding body to apply to, how the grant application will be processed and tips to increase the chances of success.

Before applying for a grant, some of the first steps to take are to:

- Recognize a service need or research gap, or have an idea.
- Identify the outcomes that the research study might have and work backwards to design a plan for how to achieve these.
- Generate several ideas and narrow these down, based on what is appropriate and feasible.
- Look for funding opportunities to identify grants that would be suitable for the project and for which the project would be eligible.

- Secure partners to establish a working team, which might include members of the public from the populations that will participate in the research.
- Prepare the grant proposal, and address the items as listed.

There are many guides to help new researchers to prepare a grant application, some of which are signposted in the Further Reading section at the end of this chapter.

6.3.3 Grant Proposal

A grant application usually includes a research proposal, which summarizes how the proposed project will be planned, implemented, monitored and reported. The exact content of the proposal will vary depending on the type of grant and the funder's requirements. For example, a grant application might seek funding for academic research on a health emergency or a scholarship to support postgraduate learning, or might be smaller in nature – in order to support attendance at a training event or conference, for example. Sometimes, funds might be sought as seed money for a pilot study or as matching funds to be combined with other sources of funding. Although there is wide variation in proposal formats, Table 6.3.1 shows the components commonly found in grant applications for research studies.

Table 6.3.1 Common components of grant proposals for research

Item	Content
Title	Short project title.
Summary	Summary of the proposed study (usually 200 to 400 words).
Introduction and Background	Background and rationale for the study to show its importance. Description of the current problem and the new study's research questions. Review of existing body of knowledge. Details of the intended participants.
Methods	Justification for the choice of methods. Description of the methods, including: - study design; - sample size and sampling method; - implementation procedures (for recruitment and follow-up for example); - plan for data collection, analysis and interpretation.
Discussion	Plan for reporting and dissemination of findings. Expected outcomes and impact of the study.
Limitations	Limitations of the methods, and risks to the project. Mitigation plans to overcome any difficulties.

Item	Content
Timeline	Time needed for each part of the project (perhaps as a Gantt chart).
Budget	Budget and justification for separate items. Details of any other funding for the study.
Ethics consideration	Ethical issues and process for obtaining ethics approval.
Research team	Information about each member of the research team.

A key aim for a grant proposal should be to present an exciting idea for a research study, that has been transformed into achievable actions and that will provide evidence to fill an important gap in knowledge. The gap can relate to uncertainties in the topic area (for example, to measure a health problem in an emergency and its impact on the population, or to identify the effects of an intervention) or knowledge mobilization (for example, moving available knowledge from research into practice). The existence and importance of the gap might be supported, for example, by a systematic or scoping review of existing research (Chapters 2.6 and 3.6), statements from experts in the field, data from previous research, examples of similar research, a prioritization exercise (Chapter 2.7), or community-based research and asset mapping (Chapter 3.1). In the proposal, it is necessary to demonstrate the applicants' knowledge of current developments in the field and the ability of the research team to deliver the study and uphold the standard of good quality scientific evidence.

Application requirements vary considerably across funding agencies. For example, some funding bodies encourage collaboration between different organizations, others prefer a simple but clear plan without the complications of project dependencies. For research studies with multiple partners and locations, the grant proposal will require clear identification of the qualifications, experience and roles of each research team member. It will also need a justification for their involvement and the costs of doing so.

6.3.4 Grant writing

Grant proposals should be written in a way that will allow peer reviewers from unrelated disciplines to understand the problem to be researched, the methods to be used and the importance of the project. Some of the people that the funder will ask to assess the application may be non-experts, so it is important for the proposal to be understandable to a range of audiences and to avoid jargon. It is helpful to use short and clear examples of what is being studied and why, to provide the assessors with a visual picture of the overall plan.

It is common for funders to ask for a cover letter to accompany the grant proposal and this is an additional way to stress the importance of the study. It is an opportunity to state the need for the project clearly and explicitly, and to show how the proposal meets the eligibility criteria for the grant. The request should clearly state and quantify on what and how the grant will be used, and the benefits to both the researcher and the funder of it being awarded. It is best to use the active voice to emphasize the plan of action. In

addition, if there is sufficient space and it is acceptable to include diagrams and infographics, these can be used to illustrate complex concepts. As with the final report of the study (Chapter 6.7), it is important to check the application carefully for spelling and grammar before it is submitted, and it may be useful to employ an editor or ask a friend to proofread it.

Case study 6.3.1
Example of a research grant on Health EDRM *(1)*

Project title: Optimizing a community-based model for case identification, monitoring, and prevention of hypertension and diabetes among Syrian refugees in the Hashemite Kingdom of Jordan

Funder: Elrha's Research for Health in Humanitarian Crises (R2HC) Programme. R2HC is funded by the United Kingdom's Department for International Development (DFID), Wellcome, and the United Kingdom's National Institute for Health Research (NIHR).

Funder requirements	Project characteristics that match the requirement
Scope: research that will strengthen evidence-based practice around a public health intervention in humanitarian crises.	Research to investigate and improve a community health worker based model for noncommunicable disease care in a humanitarian emergency among Syrian refugees in Jordan.
Impact: demonstrate the potential scale and impact of the proposed research.	The outcomes of this project will be replicable in other contexts (for example, non-refugee emergencies) and will provide a strong case for addressing continuity of care for urban refugees through community health workers.
Methodology: robust innovative methodologies of a standard publishable in peer-reviewed academic journals.	Qualitative and quantitative methods (population-based survey) will be used, including a cost-efficiency analysis. Citing previous work of the research team in the topic area will highlight their experience with the chosen methods.
Partnerships: applicants must have a research team including both a research institution and an operational humanitarian organization	University of Southern California, International Rescue Committee, Jordanian University of Science and Technology, and Brigham and Women's Hospital.
Duration: 36 months.	September 2018 to August 2021.

6.3.5 Funder requirements and suitability

The funder for a research study might be a (federal or state) government agency, a public or private foundation, or a corporation. The funder will have requirements as to the applicant's legal authority to apply for a grant,

whether the applicant is an organization or individual. For example, there are grants specifically aimed at funding partnerships between voluntary and governmental organizations, and grants targeted at people holding an academic position or belonging to certain resident groups. It may be helpful to look at previous grants made by the funder to explore the type of research that they are likely to fund and the content of successful applications.

Grant opportunities might be identified by searching online sources, through the research offices of academic institutions, or by identifying potential funding agencies. Other resources include checking the grant histories of individuals who have similar research interests or asking colleagues with a similar level of expertise. Subscription-based websites, such as Foundation Directory Online and GrantWatch have extensive information in their donor databases.

The National Institutes of Health in the USA, Canadian Institutes of Health Research and the United Kingdom's Wellcome Trust are the top three funding agencies, with the highest number of grants among 12 major funders for health research *(2)*. However, a limitation of all three is that they mainly support academic research at universities in their own countries *(2)*.

The largest source of research and development funding for health is from the business sector, followed by the public sector, and then other sources (including private NGOs) *(3)*. The private sector can be a good source for funding and, although many of these grants support clinical trials on diseases such as cancer, it is worth exploring any that would be a good fit for a project in Health EDRM. Table 6.3.2 lists some websites that contain information for private foundations and corporations that award grants for health research.

Table 6.3.2. Websites for identifying research funders

Funder or organization	Website
Foundation Directory Online	fconline.foundationcenter.org
GrantWatch "Disaster Relief Grants"	www.grantwatch.com/cat/48/disaster-relief-grants.html
WHO Centre for Health Development	extranet.who.int/kobe_centre/en/calls-tors

6.3.6 Allocation of grant funding in different phases of the disaster cycle

There are four phases of the disaster cycle: prevention, preparedness, response and recovery. Research has shown that investing in disaster risk reduction (DRR) measures before a disaster is several times more cost effective than funding the response to disaster *(4–5)*; however, prevention and preparedness are a low priority for attracting funding in comparison to the response and recovery phases. Donors are quick and generous in giving immediately after a major disaster, but donations trail off within a short period. Therefore, finding a way to place prevention and preparedness within response and recovery may increase the chances of

success for a grant proposal, as well as providing the stability required for widespread implementation in Health EDRM.

International aid for disasters from 1991 to 2010 was spent mainly on emergency response (US $69.9 billion, 65.5%) or reconstruction and rehabilitation (US $23.3 billion, 21.8%). A smaller proportion of the funding went to DRR (US $13.5 billion, 12.7%) *(6)*. In 2016, foundations and public charities allocated their global disaster-related funding as follows: 42% for response and relief efforts, 17% for reconstruction and recovery, 8% for resilience and 5% for disaster preparedness *(7)*. Furthermore, more than two thirds of private giving stops within two months of a sudden disaster, and all giving peaks by five or six months *(8)*.

6.3.7 Developing a grant budget

A vital part of planning the research study that is also vital for the grant application is identifying, well ahead of time, where to get assistance and who is needed beyond the immediate team. This will have an impact on the project's budget; an advisor or programme officer may help to determine what expenses will be regarded as reasonable. For example, funders are unlikely to pay for new computers for all members of the research team or for holding research meetings in expensive locations. What is important is that the funding will be sufficient to complete the research, which means that it is critical to request the correct amount of funding.

An effective proposal budget is an accurate assessment of all expenses, provides justification for each item of spending and explains how the costs were arrived at. The timeline for the project needs to be taken into account, as well as the items for which funding will be requested. It is also important to consider the length of time that might be needed by the host organization for the grant in order to approve the proposed budget (if necessary), as well as how to respond if the costs are challenged.

Typically, a research study's budget will include direct costs and indirect costs. Direct costs are project personnel salaries and employee benefits, equipment, supplies, services and travel. Indirect costs are those incurred in the project which cannot be identified specifically, and usually include the money needed for the services provided by the host organization (for example, administrative, procurement, accounting and finance, security, library and so on). These costs are often referred to as overheads, overhead costs, or facilities and administrative costs. They are sometimes calculated as a predetermined proportion of the project's direct costs.

Expenses for personnel will include some or all of the salary or wage for each person on the project (depending on what proportion of their time they will devote to it), as well as employee benefits such as pension expenses, social security contributions, statutory and voluntary medical insurance contributions.

6.3.8 Grant review process

Funders wish to choose well-organized and compelling ideas from among the many proposals submitted to them. They will select applicants who they feel are capable of successfully implementing the proposed project, in accordance with the requirements and eligibility criteria for their funds.

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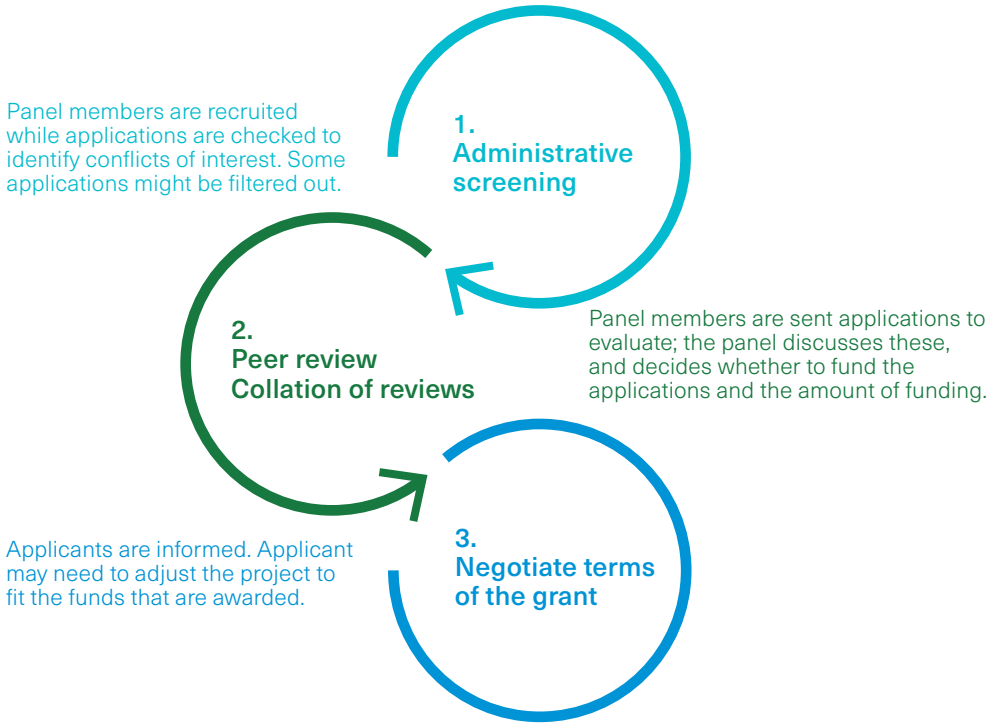
The funder's guidelines for the application are usually accompanied by information on the objectives of their grants and criteria for evaluation. To increase the chances of success, it is important that the applicant strictly follows the proper format for the application and submits all the required materials.

After a grant application is received, the funder's administrative staff will usually check its completeness and eligibility for the grant before assigning it to peer reviewers, a specific panel or both. Most decisions on research funding are made by a panel of experts who assess the applications and might interview the applicants. The panel assesses the proposal against a set of criteria. A summary of the assessment and any peer review is usually sent to the applicants, sometimes with an opportunity for them to respond before the funding decision is made. The funder would then either offer the grant to the applicant, decline to do so or, occasionally, offer a smaller amount of funding than that requested. Negotiation with the funder may then be possible, as well as adjustments to the project goals, objectives and timelines to match the reduced funding. The whole process from submission of an application to the decision usually takes at least three to six months and can sometimes take more than a year (Figure 6.3.1).

Figure 6.3.1 Grant review process



6.3.9 Managing a grant

Obtaining a funded grant is an achievement and indicates the proposal's appeal to the funder. Implementing a new grant requires good project management and administration. If the grant is for an organization, the relevant department would set up a grant budget account and oversee logistics of monitoring expenditures. Collaboration may also be needed with the human resources department to hire new personnel. A key next step after the grant is awarded may be an application for ethics approval (Chapter 6.4) and it is important to do this as early as possible, because the process can take several months and the study will not be able to start without the necessary level of approval.

6.3.10 Conclusions

There are many resources available that provide advice on preparing grant applications – this chapter outlines how to get started. To be successful, a grant proposal must be persuasive, realistic and written in a way that will appeal to the funder. In the end, success is likely to be a mixture of skill and luck; and the following tips may help:

- Address the objectives of the grant first, and explain how the objectives of the project will complement the grant.
- Identify service and knowledge gaps, and explain how the research will fill this gap.
- Show preliminary data related to the funding call, including records from previous work, feasibility research or pilot projects to demonstrate the proficiency of the research team.
- Show the track record of the research team, including listing related work and bring necessary expertise into the team where this is lacking.
- Choose and be prepared to train responsive collaborators who will complement the initial team and who will help to complete the project, problem-solve, be flexible and maintain a positive transparent outlook.
- Quantify the potential impact of the research.
- Be clear and easy to understand, illustrate with figures, infographics and photographs.
- Support the application with scientific evidence and relevant references.

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6.3.11 Key messages

- **A grant proposal summarizes the idea and components of a research study.**
- **Connections with reliable people with similar research interests and exploration of funding sources in the applicant's area of expertise will help to ensure that there is a good fit between the application and the funder.**
- **The eligibility criteria for grants and the requirements of funders vary widely, making it important to check grant criteria carefully.**
- **Previous grants made by the funder may provide a good guide to the type of research they are likely to fund and the content of successful applications.**

6.3.12 Further reading

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