

HEALTH & MEDICAL RESEARCH FUND (HMRF) 2021 CALL

WRITING A GRANT APPLICATION (REVIEWER'S PERSPECTIVE)

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DECLARATION

- I am a member of the HMRF Grant Review Board
- All content of this presentation is my personal opinion
- I had both successes & failures in HMRF applications



WRITING A
GRANT
APPLICATION

- Scope & thematic priorities
- **Assessment criteria**
- **What do reviewers look for?**
- **Pitfalls**



HMRF
ASSESSMENT
CRITERIA

- Originality
- Relevance to the fund and thematic priorities
- Significance of the research questions
- Quality of scientific content
- Credibility of design and methods
- Applicability to local context
- Translational potential / value



ASSESSMENT
CRITERIA FOR
REVIEWERS

1. Originality & impact
2. Clarity of research question, aims, objectives & hypotheses
3. Subjects & methodology: validity & feasibility
4. Outcomes & data analysis: validity & reliability
5. Research capability (required expertise)
6. Budget justification
7. Ethical & safety consideration

What do reviewers look for ?



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TITLE

- Self-explanatory
 - Research question(s)
 - Study design & method
 - Population, (intervention, comparison) & outcomes

- Keep it short & simple

- Consistent with the investigation plan



STRUCTURED
ABSTRACT

- Originality, relevance & significance of the study
- Study aim & key objective(s) consistent with title
- Hypotheses on answers to research question
- Clear & appropriate study design, subjects, intervention & data collection plan
- Primary outcome & key data analysis
- Applicability & translational potential of results (Impact)



INTRODUCTION

- Justification of the study
 - Describe the situation & problem (significance & relevance)
 - A comprehensive & relevant literature review
 - Previous work/pilot done by your team
 - Highlight the conceptual base & originality
- Statements on research question, aims, objectives & hypotheses
 - Preferably only one aim
 - Objectives (no more than 3) appropriate to the aim
 - Hypotheses on the likely findings



PLAN OF
INVESTIGATION
(I)

- Subjects & methodology: validity & feasibility
 - Sampling frame & method and sample size
 - Study design, setting & site (multi-centre)
 - Data collection/source: frequency & timing, RAMBO
 - Study instruments (bilingual) & intervention protocol (as attachments)
- A study flow diagram & Gantt chart are very helpful
- Check list of information recommended by relevant reporting guidelines, e.g. CONSORT, STROBE, CROEQ, etc.



PLAN OF
INVESTIGATION
(2)

➤ Outcomes & data analysis:
validity & reliability

- Primary outcome with clear case definition
- Secondary outcomes & confounders
- Specific data analysis to achieve each objective & test each hypothesis
- Details on statistical tests for quantitative studies
- Details on data transcription, coding & synthesis for qualitative studies
- Details on costing, model parameters & assumptions in CEA



POTENTIAL
APPLICATION
(IMPACT)

- How the results may specifically inform/change
 - Policy
 - Service planning & development
 - Practice
 - Further research
- How the results will be disseminated & implemented
- Potential for scaling up the impact
- Limitation



RESEARCH
CAPABILITY

- A team of PA & Co-A with required expertise & experience, role of each member
- Pilot study/previous study results
- Access to subjects/specimen/data
- Contingency & back-up plan
- Facilities for data collection, intervention, statistical analysis etc.



BUDGET
JUSTIFICATION

- Staff level & workload are appropriate
- Equipment/ computer/ software needed for the research
- Investigations that are really necessary
- Allowance for subjects
- Cannot pay investigators
- RPg /PDF can be supported provided they are not supported by UGC or other funding



ETHICAL &
SAFETY
CONSIDERATION

- Ethics approval by IRB is essential but may not be sufficient
- Potential physical & emotional risks to subjects
- Ethical dilemma, e.g. delayed treatment x control subjects
- Management of anticipated risks
- Trial certificate for drug trials



PITFALLS –
ORIGINALITY
RELEVANCE &
IMPACT

- Out of scope/ thematic priorities
- Problem not important or very uncommon
- Lack of novelty – first study in HK/ a specific population is insufficient
- Irrelevant/ incomplete literature review
- Lack of information/ understanding of current practice
- Unrelated or high-risk pre-requisite study
- Blue-sky exploratory studies



PITFALLS – SCIENCE

- Incoherent proposal
- Too many aims/objectives/outcomes
- Lack of hypothesis - fishing exercise
- Inappropriate design/research method
- Sample size calculation not based on primary outcome or an important/realistic effect size
- Lack of methodological details
- Data analysis too general/ do not match objectives
- Premature/superficial CEA & qualitative data analysis
- Unclear presentation/ English



WRITING A GRANT APPLICATION

- Read the Guidance Notes & thematic priorities
<https://rfs.fhb.gov.hk/>
- Start early, discuss with stakeholders & colleagues
- Invite & involve relevant co-investigators
- Review the draft critically against the assessment criteria
- Apply for IRB ethics approval/ trial certificate early
- Try your best to carry out a pilot



WISH YOU SUCCESS!