



**Tropical Health
Solutions**



Day 2

**Atoifi-TDR Research Workshop 2:
Writing a Successful Grant Application
Background, Significance, Reviewing the literature**



Aims for day 2

- Clarify points from Day 1
- Complete Day 1 (if we failed to do so)
- Discuss Background and Significance
- Discuss reviewing the literature

Evaluation of Day 1

- Stones:

	Morning		Night	
	Number	%	Number	%
Bad	0	0.0%	0	0.0%
OK	7	30.4%	1	9.1%
Very Good	16	69.6%	10	90.9%
	23	100.0%	11	100.0%

- One Minute Reflections

- [Morning](#)
- [Night](#)



Structure of a Funding Application

- Title
- Investigators
- Institutions
- Date
- Summary
- Amount
- Background
- Significance
- Research Question
- Aims and Objectives
- Methods
- Timeline
- Monitoring and Evaluation
- Ethical considerations
- Budget
- Budget Justification
- Track record of investigators
- Literature Cited
- Letters of support

Funders: *Is it important?*

- **Background**

- Concisely describe what is known about the topic
- Based on a review of the literature
- If you have publications on this topic, cite them!

- **Significance**

- Why the topic is important
- Why your project is important
- The improvements or advances that your project will make

Background / Problem statement

- Background is the explanation of why you want to do the research
- Explains what is known about the topic
- You have to demonstrate that you have a good understanding of the important issues
- Used to highlight where evidence is missing
- Builds a case for what you want to research
- Justifies your own aims and SMART objectives

Significance / Rationale

- Describes why your research project is important
- Highlights that your results will provide valuable evidence that fills in a knowledge gap
- Must explain clearly your research question
- Must support your aims

LF in Shortland Islands Proposal

Significance and innovation

The findings from this project will assist Solomon Islands in demonstrating freedom from LF, a disabling Neglected Tropical Disease, targeted for global elimination. As part of the Pacific Programme for the Elimination of LF Solomon Islands was declared non-endemic for LF in 2010 (Anonymous 2010). The evidence for this was not strictly epidemiological but based on the opinion of a panel of experts (Anonymous 2010). When a country is declared LF-free, it has the responsibility for monitoring to detect any new cases of LF (WHO 2011). How this is to be done has not yet been clearly set out. A survey protocol has been determined, but not how the population to be surveyed should be selected. Systematic surveys of the rural population of Solomon Islands is difficult since village populations are

Example: Our application to study LF in the Shortland Islands....

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11. Body of Proposal / Free-form text (4 pages)*

Aims and background

1. To trial rumour verification as a tool for the Global Elimination Programme for Lymphatic Filariasis (LF).
2. To determine whether the rumours that lymphatic filariasis is still present in the Outer Shortland Islands, Solomon Islands is supported by evidence that would justify a population survey to confirm that the causative parasite (*Wuchereria bancrofti*) is present.
3. To raise awareness of LF, including its life cycle, clinical effects, management and control in the community and health care providers in the Outer Shortland Islands.
4. To build capacity of research colleagues based at Atoifi Adventist Hospital, Solomon Islands, to respond to rumours of the occurrence of LF and other infectious diseases.

In collaboration with colleagues at Atoifi Adventist Hospital, a team from JCU investigated a new case of elephantiasis in East Kwaio, Malaita, Solomon Islands in 2011. The aim was to determine if the disease LF was still actively being transmitted in this remote area. This was an important study since Solomon Islands had been declared free of LF in 2010 by the World Health Organization (WHO 2010). The Pacific Programme to Eliminate Lymphatic Filariasis (PacELF) is a major part of the global push to rid the world of this disease. We found that although there was no evidence of transmission, one individual (an 18 year old male) was infected with the causative nematode parasite (*W. bancrofti*). The publication

describing the investigation (Henderson et al 2012) set out an algorithm for responding to such cases in

Example: Our application to improve treatment of TB....

Australian Respiratory Council Project Funding application

Project: East Kwaio, Solomon Islands: Community based stories for TB education and evaluation.

Applying organisation: Atoifi Adventist Hospital, Malaita, Solomon Islands.

Director of Nursing: Rowena Asugeni rowenaasugeni@gmail.com

PO Box 930, Honiara, Solomon Islands Phone: +762 482 481; Fax: +762 482 479

Project concept:

This project will develop and trial a series of video-based education resources about community-based TB treatment and completion in East Malaita, Solomon Islands. The project will work closely with health workers and community leaders and use a traditional Solomon Islands oral story telling model of education and communication.

Purpose of the project and background information:

The TB team at Atoifi Adventist Hospital (AAH) have demonstrated that they have the skills, drive and

What general lessons could you take from these example that might be relevant to your application?

Reviewing the literature

- The “literature” = the information published in print or as documents in electronic format; e.g., on the web
- Classification:
 - Peer-reviewed literature (most journal articles, some books)
 - Non-peer reviewed (journal articles, monographs)
 - “Grey” literature = not in scientific literature (reports, web pages, newspapers, popular journals, other documents)

Peer-reviewed?

- Before a paper is published in a scientific journal, detailed comments are made about its quality
- The people making the comments are “reviewers”
- They are usually chosen because they have published papers on the same topic as the submitted manuscript = “peers” to the authors

Peer review process

- The editor of the journal takes notice of the reviewers' comments
- Has three options:
 - Reject
 - Accept
 - Resubmit

Example: Persistence pays off

- Humpress, Peter, a colleague from USA and I wrote a manuscript about head lice in the Pacific Island Countries and Territories (PICTs)
- It was a systematic literature review
- We submitted it to *New Zealand Medical Journal*

A systematic literature review of pediculosis due to head lice in Pacific Island Countries and Territories: What country specific research on head lice is needed?

Rick Speare^{1,2§}, Humpress Harrington³, Deon Canyon⁴, Peter D. Massey⁵

Rejected!

- But it had been sent to reviewers
- They said it was OK, but asked “*so what?*”
- We changed the “angle” and submitted it to the *Bulletin of the World Health Organization*
- Rejected by editor!
- We submitted it to *BMC Dermatology*
- Asked to revise
- Accepted after revision!

Speare R, Harrington H, Canyon D, Massey PD. A systematic literature review of pediculosis due to head lice in Pacific Island Countries and Territories: What country specific research on head lice is needed? *BMC Dermatology* (in press)

What did reviewers' say?

Reviewer 1

Reviewer's report:

Accept without revision

Level of interest:An article whose findings are important to those with closely related research interests

Quality of written English:Acceptable

Reviewer 2

Reviewer's report:

1. As a first general comment there are some typographical errors that require correction, e.g.

- in the list of authors Peter D Massey is given the superscript identifier "5" but his affiliation is listed as "6" further down the page;
- in the Abstract, Background, you refer to "Pacific Countries and Territories (PICTs)" rather than "Pacific Islands Countries and Territories (PICTs)"
- in the main text Methods, line 123, you list databases as "PubMed, CIINAL, Web of Science..." which should be corrected to "PubMed, CINAHL, Web of Science..."

No doubt there are other typographical errors in the text that are less obvious, and I have not checked your bibliography for correct citations. Please check

Grant applications are reviewed too

- Either by members of the selection panel
- Some are sent to external reviewers first
- Make sure that the Background and Significance is of good quality
- Don't make typographical and grammatical errors
- When reviewers see typographical errors, they are more likely to think that there will be errors in the science
- Get a person with good English writing skills to edit the proposal

Why conduct a literature review?

- Improves the quality of your Background and Significance and your Methods
- Helps you answer the question: “Have similar studies been done in the past?”

No: Is a very good justification for your study!

Yes: Is an answer to your question known?

What problems have been identified?

Use to modify your Methods

Modify your research question

Modify your research hypothesis

Finding relevant literature

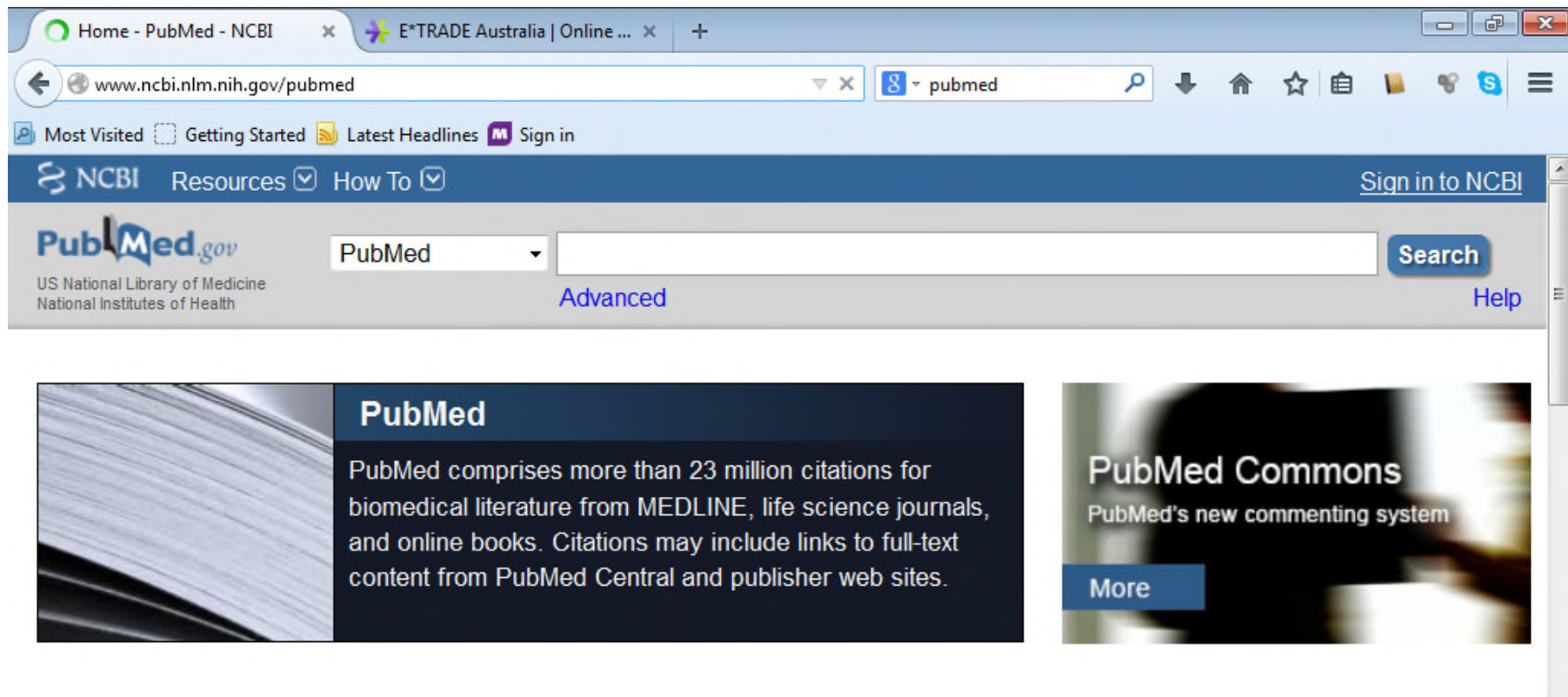
- No internet access:
 - Difficult!
 - Find a recent relevant publication, read it carefully, and look at references that it cites
 - Try to get these
 - Ask colleagues working on the topic
 - Collaborate with someone who does have access to internet

Finding relevant literature: Internet access

- Use electronic databases
- PubMed to search peer-reviewed journals
 - Free
 - Get open access articles
- WHO HINARI site to get access to journals
- Can use Google Scholar
- Results must be manageable
 - If get 100s of papers, the search may be too wide

PubMed

- <http://www.ncbi.nlm.nih.gov/pubmed>



The screenshot shows a web browser window with the URL www.ncbi.nlm.nih.gov/pubmed. The page features the NCBI logo and navigation links for Resources and How To. A search bar is prominently displayed with the text "PubMed" and a "Search" button. Below the search bar, there are two promotional banners. The left banner, titled "PubMed", states: "PubMed comprises more than 23 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites." The right banner, titled "PubMed Commons", describes it as "PubMed's new commenting system" and includes a "More" button.

The screenshot shows a web browser window with the address bar displaying www.who.int/hinari/en/. The page features a yellow header with the HINARI logo and navigation links in Arabic, Chinese, English, French, Russian, and Spanish. A search bar is located below the header. The main content area is titled "HINARI Access to Research in Health Programme" and includes a descriptive paragraph about the program's mission and resources. A sidebar on the left lists various navigation options, and a right sidebar contains links to a Portuguese website and other sister programs.

WHO | HINARI Access to Rese...

www.who.int/hinari/en/

Most Visited Getting Started Latest Headlines Sign in

عربي 中文 English Français Русский Español

HINARI
Research in Health

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HINARI

About HINARI

Access the content

Eligibility

Partners

Training materials

Promoting HINARI

Contributions

HINARI Access to Research in Health Programme

HINARI Programme set up by WHO together with major publishers, enables low- and middle- income countries to gain access to one of the world's largest collections of biomedical and health literature. Up to 13,000 journals (in 30 different languages), up to 28,800 e-books, up to 70 other information resources are now available to health institutions in more than 100 countries, areas and territories benefiting many thousands of health workers and researchers, and in turn, contributing to improve world health.

Map of country breakdown 2014
png, 121kb

Give to HINARI
You can make a difference

Portuguese HINARI website
HINARI site in portuguese

Other Sister Programmes with

<http://www.who.int/hinari/en/>

Decide on a search strategy

- Research question – decide on key words
- **Search terms** to find publications on the topic
- Write these down!
- Number of publications (**hits**) must be recorded
- Always keep a record of database searched, search terms, number of hits

Decide on a search strategy

Example

- For papers on diabetes in Tonga, search terms
 - *diabetes AND Tonga*
- Hits = 19
- [Page of hits](#)
- [Hit 6 – Gestational diabetes](#)
- [Hit 3 - Obesity](#)
- Read the title and the abstract of each hit
- Decide “*Is it relevant to your question or topic?*”

Exclude hits that are not relevant

- Exclude duplicates (record the number)
- Decide if the hit is relevant by reading title and abstract
- Use exclusion criteria to exclude hits that are not relevant: (record the number)
 - No English title or abstract
 - Not on topic (eg, diabetes in Tonga)
- Get full copies of the included papers to read

Use these to write the Background and Significance

- What the problem is
- What is known
- What is not known
- What difference your study will make
- Why this is important

Search strategy can get complicated

- For papers on diabetes in Solomon Islands
- If *diabetes AND Solomon Islands* is searched the computer may read it as *diabetes AND Solomon AND Islands*
- PubMed hits = 136
- [Page of hits](#)
- Search as *diabetes AND “Solomon Islands”*
- PubMed hits = 11

Example: Head lice in Pacific Island Countries and Territories

- Started as a question “*What has been published on head lice in Solomon Islands?*”
- What search terms did we use?
 - (Head lice) AND (Solomon Islands)
 - Pediculosis AND (Solomon Islands)
- We could have used ((Head lice) OR pediculosis) AND (Solomon Islands)
- PubMed – number of hits = 2
- Excluded 1 (not SI but PNG)

Example: Head lice in Solomon Islands

Eason RJ, Tasman-Jones T: Resurgent yaws and other skin diseases in the Western Province of the Solomon Islands. *P N G Med J* 1985, 28:247-250.

- Decided to change the question “*What has been published on head lice in the Pacific Island Countries and Territories (PICTs)?*”
- What search terms did we use?
 - ((Head lice) OR pediculosis) AND each of the 22 PICTs



Reviewing the publications

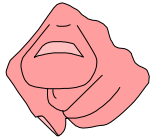
Organize the publications that are included

- Write comprehensive summaries of each
- Sort by topics
- Put into a table
- Write literature review
- Write the list of references immediately

Literature Review



is not: a list



but: an organized classification and evaluation

The objective is:

to demonstrate your intellectual ability to recognize relevant information

to classify and synthesize this information

to evaluate and organize it according to the guiding concept (i.e. research hypothesis / question / aims)

Lit review can be “used” several times

- In the grant application
- To inform
 - Research Question
 - Aims
 - Objectives
 - Methods
- As a publication
- In the report to funders

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