

Zero Leprosy Best Practices

Best Practice: *Research Capacity Building for Leprosy Healthcare Staff—Nepal*

Subtheme(s)

- Operational capacity
 - Healthcare workforce

Target Audience(s)

- Policy leaders
- Program managers
- Trainers
- Health staff
- Persons affected by leprosy
- Donors

Contributors

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Key Messages

Health staff involved in leprosy care have a wealth of knowledge and experience that often goes untapped because they lack the skills to document, analyze, and share what they observe on an almost daily basis. Systematic and ongoing research capacity building for hands-on health workers in leprosy-endemic areas through true research partnerships is an efficient and effective way of generating new knowledge and best practices in leprosy treatment and morbidity/disability management, thus ensuring sustainability of leprosy expertise that has contextual relevance for people in a country/region.

Key Informant / Date Submitted

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Description of the Best Practice

Introduction

Lalgadh Leprosy & Health Services Centre (LLHSC) is the only government-recognized Tertiary Leprosy Referral Hospital in Nepal's high endemic Province 2, which accounts for more than one-third of Nepal's new leprosy cases.

LLHSC conducts around 12,000 leprosy consultations annually along with many community projects supporting people affected by leprosy. The centre has 108 staff who provide quality preventive,

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curative, and rehabilitative care aimed at eliminating leprosy and facilitating community development and human rights.

In 2017, staff told LLHSC's partner organization, American Leprosy Missions (ALM), that researchers from developed countries would take their data and publish papers, while LLHSC staff never had an opportunity to attend any conferences. Staff wanted to learn research so they could understand and learn from their own work and be able to present it as well.

In response, ALM initiated two research methodology workshops in 2018 at LLHSC for clinical, paramedical, epidemiological, and community development staff to enable development of research projects addressing critical issues in leprosy.

Objectives and Methodology

1st Research Methodology Workshop

The purpose of the first workshop, held for 5 days in June 2018, was to demystify research and enable a learning culture and spirit of enquiry and innovation at LLHSC.

Objectives were to

- sensitize staff on the principles of research
- build capacity to identify opportunities for research and learning
- enable staff to seek answers to their leprosy questions through simple research

The methodology was hands-on and participatory; practical sessions used data from hospital records and interviews with patients and others in the community.

2nd Research Methodology Workshop

The purpose of the second workshop, held for 3 days in August 2018, was to strengthen the research culture at LLHSC and develop research projects.

Objectives were to

- refine the research proposals
- apply appropriate statistical tools and data analysis methods
- discuss budgetary and other requirements

The methodology was hands-on and participatory. Participants worked on improving their proposals based on input from the resource persons.

Implementation of Practice

The 1st Research Methodology Workshop focused on a curriculum that appropriately oriented 15 trainees to basic research concepts and methods (*see Annexure*).

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The 2nd Research Methodology Workshop focused on working with 12 participants to improve study designs, use appropriate data collection tools, and estimate sample sizes.

Logistics, Infrastructure, and Costs of the Workshops

Workshops were held at LLHSC, using its training hall and accommodation. Field work was organized by LLHSC.

The cost of the workshops was approximately USD 4,500 for a 3-5-day workshop with 12-15 participants and 2-3 resource persons.

Results—Outputs and Outcomes

1st Research Methodology Workshop

Deliverables from the first workshop were that participants would

- Understand that research is not an exotic activity done in isolation by a select few but something that diligent and thoughtful workers can engage with as part of their daily work to solve problems or learn more about a situation
- Understand the basic principles of research
- Identify opportunities for research in their area of work and develop relevant research questions
- understand data collection tools and their application
- develop concepts using available secondary data/collecting primary data, and aiming for submission to the International Leprosy Congress (ILC) 2019

Feedback indicated participants understood research principles and recognized LLHSC's programme as a resource for learning and possibilities for research in their own fields. All scored higher in the post-test than in the pre-test; most showed remarkable improvement.

For outcomes, as a result of the workshop, 12 research concepts were developed:

1. An assessment of women's empowerment in mixed NTD self-help groups (SHGs) in Nepal
2. Barriers to completing multidrug therapy (MDT) among women in rural areas in Nepal endemic for leprosy
3. A study on the burden of leprosy stigma among educated people in Nepal
4. A study of issues faced by adolescent leprosy patients
5. A study of children affected by leprosy reporting for the first time at LLHSC
6. Time trends in multibacillary/paucibacillary ratio among leprosy patients registering at a referral centre in a high endemic district in Nepal
7. Impact of commercial footwear vs. micro-cellular rubber (MCR) footwear in preventing first ulcers in a foot (feet) without sensation
8. First symptoms to MDT—path to diagnosis and treatment
9. Nutritional status of adult leprosy patients

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10. An exploration about knowledge of leprosy among newly diagnosed leprosy patients and their contacts. Do we need a new awareness campaign?
11. Nutritional status of leprosy affected children
12. Impact of SHGs in reducing recurrent leprosy ulcers

2nd Research Methodology Workshop

Deliverables from the second workshop were that

- participants develop the concepts into proposals
- study designs be improved, and appropriate research tools included
- budgets and ethical approvals be discussed

Outcomes included the following:

- All 12 projects were approved by Institutional Review & Ethical Review committees of Nepal and were funded by ALM
- For the first time, staff have 12 research projects underway
- 9 studies were accepted for presentation at ILC 2019

Lessons Learned

What worked really well; what facilitated this?

- A pre-test assessed participants' familiarity with research concepts and the facilitator began at a very basic level. Explanations in local language helped overcome a few participants' language barriers.
- Written feedback at each day's end helped modify the next day's content to the needs of participants
- Emphasis was on understanding the research process and developing a working level of practical skills, rather than theoretical knowledge
- A second workshop held within few months of the first helped in progress and indicated ALM's and LLHSC's commitment to building research capacity
- It was anticipated that support would be required to complete, write, and present projects successfully. This is being provided by resource persons through Skype/emails. A **follow-up workshop is scheduled August 2019** for data analysis, publication development for submission to identified journals, and preparation for ILC.
- The timing of workshops, a year before ILC, gave impetus to the participants

What did not work; why did it not work?

15 participants attended the first workshop, but only 12 who developed research studies attended the second. Not everyone can commit to research.

Replicability and Scalability

Has the practice been implemented in more than one setting? No.

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What long term effects can be achieved if the practice is sustained over time? Retention of leprosy expertise where it is needed most—at the point of care.

What are the requirements to sustain the practice over time considering contextual factors, institutional support, and human resources?

- Institutional commitment to support research by staff
- Financial resources to run trainings, to send staff to conferences for presentations, and for publication
- Selection of the right people for training and releasing them from work for training
- Permitting time for research during the workday—maybe a few hours a week. Healthcare staff will be hard pressed to work on their research after a busy workday.
- Mentoring of new researchers to develop high quality research

Conclusions

How have the results benefited the population?

The target population was healthcare staff: 15 were trained, and 12 developed research projects of which 9 were selected for presentation at ILC 2019. This is a remarkable achievement for a first exposure to research. With sustained commitment, research could develop as a major part of LLHSC's work and contribute much to leprosy knowledge.

Why may that intervention be considered a “best practice”?

LLHSC's data are a great strength for research. To date, these data have been tapped by academic, non-local researchers and not in true research partnership with LLHSC.

Research capacity building for healthcare staff is a **relevant** best practice, as it enables staff to address issues faced at their level through research using their own data sources. Because of this ownership, the research can be **efficiently and effectively** translated into immediate action at the point of maximum impact. The practice is easily **replicable and sustainable** as it fuels more research and builds leprosy expertise where it is needed most.

What recommendations can be made for those intending to adopt the documented “best practice,” or how can it help people working on the same issue(s)?

- Make research part of the work culture
- Start building research capacity of healthcare staff in high endemic areas, through regular workshops, good follow-up, and “hand-holding” / mentoring
- Multi-centre studies on similar issues will have contextual relevance for people in a country/region
- Develop true research partnerships, where the research is not for the advancement of a few
- Commitment by all involved will multiply the return of investment many times over

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ANNEXURE: Curriculum 1st Research Methodology Workshop

#	SUBJECT	TOPICS COVERED	OBJECTIVE	METHOD
1.	<i>Orientation to research</i>	What is research? Why is research necessary? Different approaches to research	To demystify research and encourage staff to engage in research	Discussion, Groupwork
2.	<i>Qualitative and quantitative research. Different types of research</i>	Difference between the two and different tools used for both. Other categories of research—terms and what they mean	To understand basic tools and terms used in research	Lecture
3.	<i>Selection of a topic</i>	How to choose a useful, appropriate and relevant topic	To develop a topic for their own concept/proposal	Demonstration Practical
4.	<i>Literature review</i>	Examples of similar studies, repetition, the need to know what has been done before. Search Engines: PubMed/Medline, Google Scholar	Sensitization	PowerPoint Demonstration
5.	<i>Developing a research question</i>	How to develop a research question	To develop a research question for their own concept/proposal	Demonstration Practical
6.	<i>Data types, data collection methods and tools, software</i>	Effective and appropriate methods of data collection	To develop their own data collection tools and plans	Discussion and practical field work
7.	<i>Statistics and software</i>	Basic tests and software	Sensitization	Lecture
8.	<i>Sampling</i>	Sampling methods	Sensitization	Lecture
9.	<i>Ethics</i>	Ethical issues surrounding bio-medical research	Sensitization	Lecture
10.	<i>Writing a concept note, developing a proposal</i>	Sections of a concept note and proposal	Sensitization	Practical work
11.	<i>Different ways of sharing findings</i>	PowerPoint presentation, poster presentation, articles for publication in scientific journals	Sensitization	Demonstration
12.	<i>Develop a concept note/proposal, with timelines</i>	Developing individual proposals with timeline	To start their own research projects	Practical work

The topics in the shaded boxes were covered more extensively during the 2nd workshop when projects were underway.