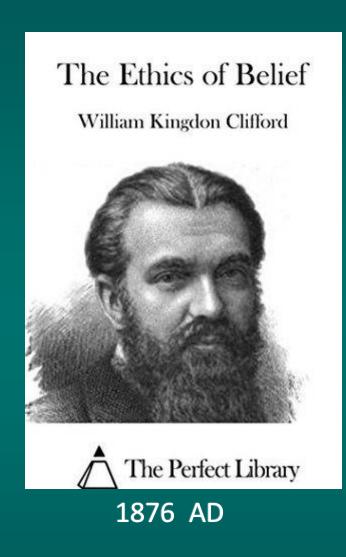




# Randomized Controlled Trial Governance in Nepal

Mohan R. Sharma, MD
Professor and Head of Neurosurgery
Institute of Medicine
Kathmandu, Nepal



"It is wrong always, everywhere, and for anyone, to believe anything upon insufficient evidence."

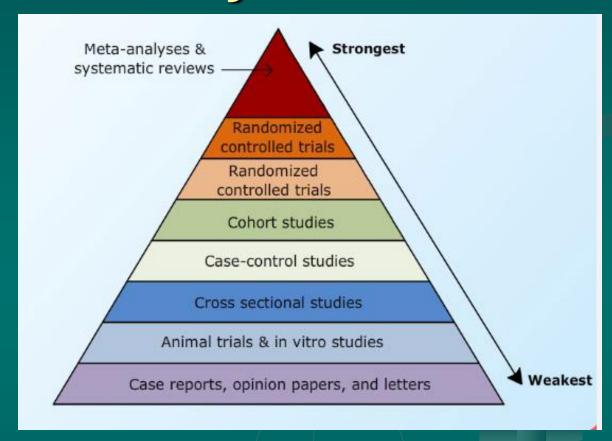
# Reasons for Generating New Evidence

## Most scientific method to:

- Understand the epidemiology of the disease
- Determine the utility and applicability of diagnostic tests
- Select best treatment modalities
- Develop new tools and methodologies to measure and promote health equity

Commission on Health Research for Development. Health research: essential link to equity in development. Oxford University Press; 1990

## **Hierarchy of Evidence**



'Supreme court' of evidence!

## World

#### BRITISH MEDICAL JOURNAL

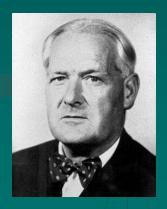
LONDON SATURDAY OCTOBER 30 1948

STREPTOMYCIN TREATMENT OF PULMONARY TUBERCULOSIS
A MEDICAL RESEARCH COUNCIL INVESTIGATION

The following gives the short-term results of a controlled investigation into the effects of streptomycin on one

#### The Control Scheme

Determination of whether a patient would be treated by streptomycin and bed-rest (S case) or by bed-rest alone (C case) was made by reference to a statistical series based on random sampling numbers drawn up for each sex at cach centre by Professor Bradford Hill; the details of the series were unknown to any of the investigators or to the co-ordinator and were contained in a set of sealed envelopes, each bearing on the outside only the name of the hospital and a number. After acceptance of a patient by the panel, and before admission to the streptomycin centre, the appropriate numbered envelope was opened at the central office; the card inside told if the patient was to be an S or a C case, and this information was then given to the medical officer of the centre.



Sir Bradford Hill (1897-1991)





ACADEMI

RESEARCH

PRACTICE

C AD



**CENTER FOR HUMAN NUTRITION** 

Nepal Nutrition Intervention Project - Sarlahi (NNIPS)

## THE LANCET

Vol 338

Saturday 13 July 1991

No 8759



Efficacy of vitamin A in reducing preschool child mortality in Nepal

KEITH P. WEST, JR R. P. POKHREL JOANNE KATZ STEVEN C. LECLERQ SUBARNA K. KHATRY SHARADA R. SHRESTHA ELIZABETH K. PRADHAN JAMES M. TIELSCH M. R. PANDEY ALFRED SOMMER Est in 1989 as a collaboration between the Johns Hopkins University & Nepal Netra Jyoti Sangh

A randomized, double-blind, placebo-controlled community trial of 28,630 children aged 6-72 months

Demonstrated a 30% reduction in child mortality, leading to substantial changes in both Nepali and other government's Vitamin A programs.

SPECIALTIES ✓ TOPICS ✓ MULTIMEDIA ✓ CURRENT ISSUE ✓ LEARNING/CME ✓ AUTHOR CENTER PUBLICATIONS ✓

ORIGINAL ARTICLE



## Safety and Efficacy of a Recombinant Hepatitis E Vaccine

Authors: Mrigendra Prasad Shrestha, M.B., B.S., Robert McNair Scott, M.D., Durga Man Joshi, M.D., Mammen P. Mammen, Jr., M.D., Gyan Bahadur Thapa, M.B., B.S., Narbada Thapa, Ph.D., Khin Saw Aye Myint, M.B., B.S., and Bruce L. Innis, M.D. Author Info & Affiliations

Published March 1, 2007 | N Engl J Med 2007;356:895-903 | DOI: 10.1056/NEJMoa061847 | VOL. 356 NO. 9

A collaboration between U.S. Army and Royal Nepal Army sponsored by GlaxoSmithKline from July 2001 to January 2004

A phase 2 randomized, double-blind, placebocontrolled trial of rHEV vaccine to evaluate safety & efficacy in 1794 subjects Vaccine efficacy - 95.5%



Contents lists available at ScienceDirect

#### Contemporary Clinical Trials Communications

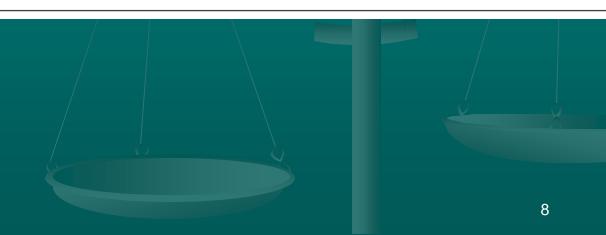
journal homepage: www.elsevier.com/locate/conctc



Revisiting the clinical trial history and regulatory mechanisms in Nepal in the context of COVID-19 pandemic

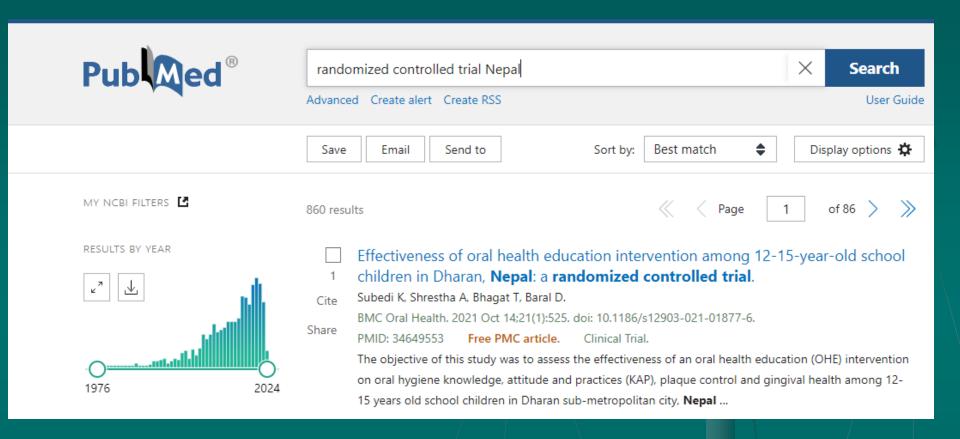
Suman Sharma Paudel <sup>a,\*</sup>, Yunima Sapkota <sup>a</sup>, Pradip Gyanwali <sup>a</sup>, Meghnath Dhimal <sup>a</sup>, Namita Ghimire <sup>a</sup>, Suman Pant <sup>a</sup>, Dinesh Bhandari <sup>a,c</sup>, Shrawan Kumar Mandal <sup>b</sup>

<sup>&</sup>lt;sup>c</sup> School of Nursing and Midwifery, Monash University, Australia



<sup>&</sup>lt;sup>a</sup> Nepal Health Research Council (NHRC), Nepal

b Sukraraj Tropical and Infectious Disease Hospital (STIDH), Kathmandu, Nepal



## A highly complex, time-consuming, risky and costly task

## **Clinical Trial Governance**

- A systematic approach to maintaining and improving the <u>quality of clinical</u> trials
- Ensuring that:
  - Research has been done in line with:
    - Established ethical principles
    - Guidelines for responsible research conduct
    - Relevant legislation and regulations
    - Institutional policy

## Objectives

- Reduce trial start up times
- Optimize recruitment and recruitment time frames
- Better engage trial sponsors
- Improve consistency in trial service delivery

## **Specific Objectives**

- Describes the clear role of PI, site PI, coordinator, research officer, pharmacist, etc
- Provides standards against which the performance of the trial will be assessed
- Help develop strategic and operational plans
- Helps with accreditation and training of IRCs, trial centers
- Eliminates duplicates and delays

National Clinical Trials Governance Framework, Australia, 2022

## Elements of Research Governance

- Ethical approval
- Compliance with legislation, regulations, guidelines and codes of practice
- Legal matters, including contracts or insurance frameworks
- Financial management
- Risk assessment & management
- Managing collaborative research
- Monitoring of trials- protocol compliance, SAE, AE, etc
- Ensuring responsible research conduct and managing research misconduct
- Reporting requirements





#### The National Clinical Trials Governance Framework

and user guide for health service organisations conducting clinical trials

February 2022







## Governance in Nepal



- Accreditation of IRCs
- Periodic training of IRC members
- Research promotion training
- Approval and monitoring of trials
- Vaccine trials cabinet

#### Training programs

189

5013

8

Training programs since 1991

**Participants** 

Types of trainings

#### **Nepal Clinical Trials Registry (NCTR)**

NHRC Guideline for CME/CPD Accreditation (For Health Science Professionals)

Entry into force: 15 November 2017

Nepal Health Research Council (NHRC) Continuing Professional Development (CPD) in Health Sciences

NHRC CPD Guidelines for Providing Credit Hours to Participants of Research Trainings and conferences

This guideline is applicable for providing credit hours for health professionals attending research trainings and participating in health research related conferences, summits, workshops, and seminars.

#### NHRC Raw Data Research - Introduction

## NATIONAL GUIDELINE ON CLINICAL TRIALS WITH THE USE OF PHARMACEUTICAL PRODUCTS

#### Editors

Dr. Sachey Kumar Pahari Professor (Dr.) Ramesh Kant Adhikari Dr. Shanker Pratap Singh Dr. Rajendra Kumar BC Ms. Pearl Banmali

#### Assisted by

Ms. Shailee Singh Rathour

Edition: First 2005

Clinical Trial Process for Vaccine (खोपको क्लिनिकल ट्रायलसम्बन्धी प्रक्रिया)

#### National Ethical Guidelines for Health Research in Nepal 2022



Nepal Health Research Council (NHRC) Ram Shah Path, Kathmandu, Nepal January 2022

## National Ethical Guidelines for Health Research in Nepal 2022

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## Department of Drug Administration



औषधि ऐन, २०३४

प्रमाणीकरण र प्रकाशन मिति

२०३५।७८

२०४५।७१०

२०५७।८।१४

#### संशोधन गर्ने ऐन

- ৭. औषधि (पहिलो संशोधन) ऐन, २०४५
- २. औषधि (दोस्रो संशोधन) ऐन, २०५७
- ३. गणतन्त्र सुदृढीकरण तथा केही नेपाल कानुन संशोधन गर्ने ऐन २०६६

20551901

३१. नयाँ औषधिको क्लिनिकल ट्रायल गर्न विभागबाट अनुमितिपत्र लिनु पर्ने : कसैले कुनै नयाँ औषधिको क्लिनिकल ट्रायल गर्न चाहेमा सो कामको लागि विभागबाट तोकिए बमोजिम अनुमितिपत्र लिन् पर्नेछ ।

स्पष्टीकरण : यस दफाको प्रयोजनको लागि "क्लिनिकल ट्रायल" भन्नाले कुनै नयाँ औषि प्रयोगमा ल्याउन उचित छ वा छैन भन्ने कुरा यकीन गर्ने उद्देश्यले अनुमितपत्रमा तोकिदिए बमोजिम अस्पताल वा यस्तै अन्य चिकित्सालयमा रोगी वा अन्य व्यक्तिको स्वेच्छानुसार निजलाई सेवत गराई परीक्षण गर्ने कार्य सम्भन् पर्छ।

## Institutions

- Trials/ extramural funded projects handled differently
- Different Uni/institutions may have different regulations but similar in nature

#### त्रिभुवन विश्वविद्यालय अनुसन्धान/शैक्षिक विकास परियोजना व्यवस्थापन कार्यविधी, २०७२

प्रस्तावना:- त्रिभुवन विश्वविद्यालय अन्तरगंतका निकायहरूमा अध्यापन, अनुसन्धान कार्यमा संलग्न शिक्षकहरूले विश्वविद्यालय र देशको शैक्षिक, सामाजिक, आर्थिक, बैज्ञानिक र प्राविधिक उन्नयनका लागि सञ्चालन गर्ने अल्पकालीन र दीर्घकालीन अनुसन्धान/शैक्षिक विकास परियोजनाहरूलाई स्वायत्त ढंगवाट सञ्चालन तथा व्यवस्थापन गर्न गराउनको लागि त्रिभुवन विश्वविद्यालय संगठन तथा शैक्षिक प्रशासन सम्बन्धी नियम, २०५० को नियम १३३ (२) र ३९७ ले दिएको अधिकार प्रयोग गरी त्रि.वि. कार्यकारी परिषद् देहाय वमोजिमको कार्य ब्यवस्थापन प्रणाली वनाई लागु गरेको छ।

## त्रिभुवन विश्वविद्यालय चिकित्साशास्त्र अध्ययन संस्थान अनुसन्धान परियोजना कार्यान्वयन कार्यविधि, २०७७ (संशोधन सहित) संशोधन मिति २०७७२१५

परिच्छेद ४ अनुसन्धान परियोजना संचालन स्थायी समिति गठन

अनुसन्धान परियोजना कार्यान्वयन समितिको गठन

## **Barriers and Solutions**

- Insufficient research capacity
  - Research centers/depts. in major institution a must
- Inadequate research enthusiasm
  - Periodic training
  - > Encouragement & mentorship by the seniors
  - Incentives for researchers (Job opportunities, higher salary, and faster career advancement)

## **Barriers and Solutions...**

### Lack of expertise

- More training courses
- Short-term visits to international research centers or inviting international experts to train the local scientists

#### Lack of funding

- > Increasing awareness among potential researchers
- Lobbying the policy makers
- Collaboration

#### Brain drain

- Developing adequate infrastructure at home
- > Providing "protected" research time
- Ensuring financial security for the researchers

## Miscellaneous Issues

- Trial registry
- Harmonize regulatory, legal and administrative requirements to facilitate pragmatic, efficient and achievable standards in clinical trial
- Promote routine data-sharing systems to prevent unnecessary duplication of trials
- Clear trial governance framework publication
- Availability of Contract Research Organizations (CROs)
- Need of reporting requirement and handling misconduct policies

## Conclusion

