



# Research Capacity Strengthening

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Management and Quality of Medical  
Information, 10-13 March 2020

- Research Management Workshop DMR, Yangon (10<sup>th</sup> -13<sup>th</sup> March 2020)

# What is Research Capacity Strengthening?

- Process by which individuals, institutions and societies develop abilities-individually and collectively- to perform **research effectively, efficiently and in a sustainable manner**
- Various approaches including improving the capacity of individual researchers through **training courses, supporting partnerships and developing leadership skills**

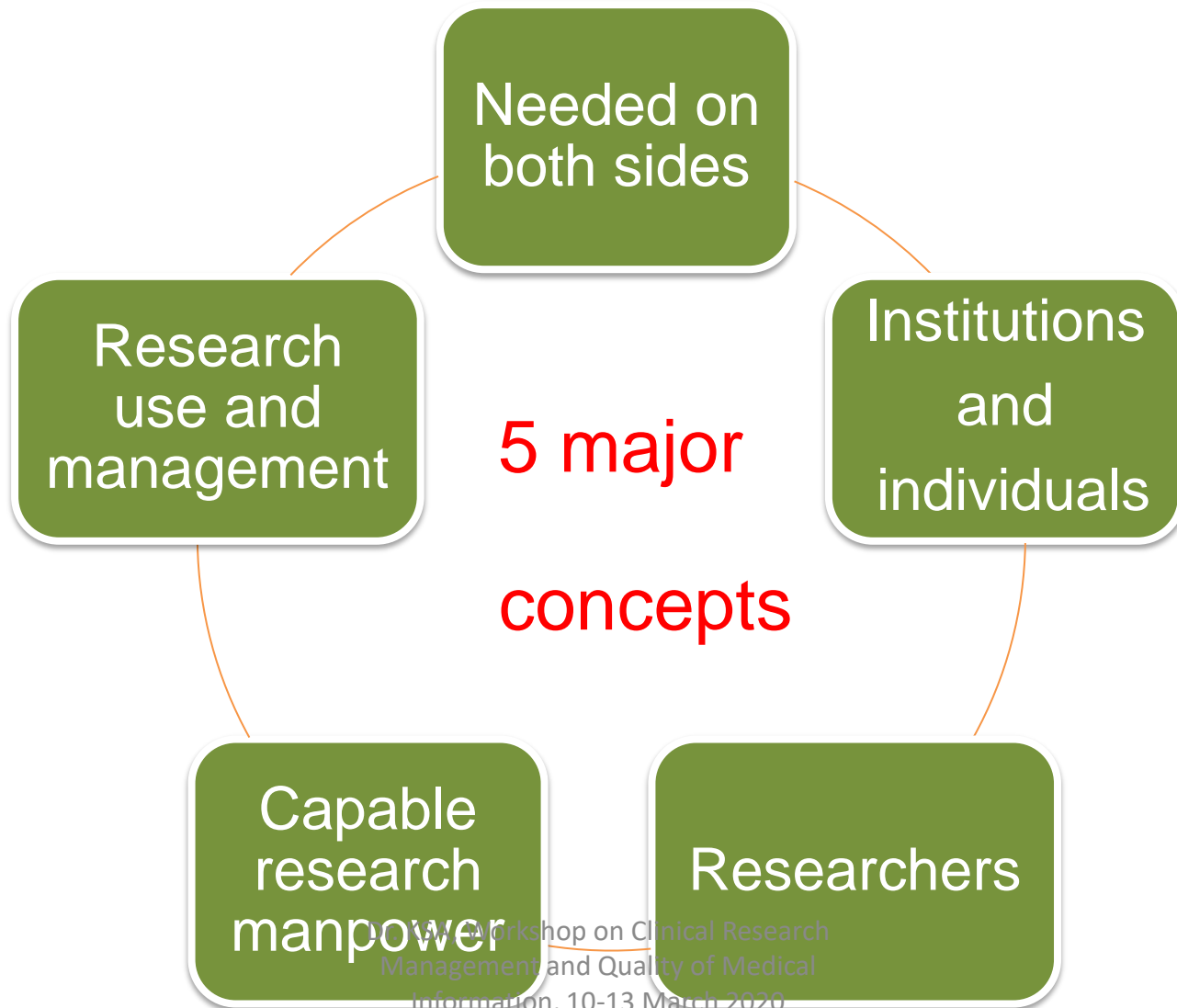


# What is Research Capacity Strengthening?

- Researchers in low- and middle-income countries (LMICs) are best placed
- To identify and address the health challenges of their own nations
- To provide local and national policy-makers with a broad range of high-quality, relevant evidence to inform decision-making



# Research capacity building in health research



# Research capacity building in health research

1. Needed  
on both  
sides

Capacity building is needed both on

## Supply side

Researchers

## Demand side

Research users

- General public
- Civil societies
- Policy makers
- Health programmers

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# Research capacity building in health research

## 2. Institutions and individuals

There is a need to develop capacity of both institutions as well as individuals of **both the supply side and the demand side**.

- These should include the **building up and maintenance of the infrastructure facilities** necessary to support research.



# Research capacity building in health research

## 3. Researchers

Researchers include a range of persons,  
from

➤ highly trained professional researchers

to

➤ community health workers





# Research capacity building in health research

## 4. Capable Research Manpower

4. There is a need to look beyond the production of capable research manpower.

- It is necessary to pay **attention to the maintenance and continuous improvement and utilization of this capable manpower** by providing an enabling environment, career development, rewards and incentives, and avoiding brain drain, both internal and external.



# Research capacity building in health research

## 5. Research use and management

Capacity building includes

- Development of capability for research
- Research use
- Research management



# National point of view

- A more comprehensive approach to capacity building is required.
- It is necessary to build a research culture among the policy makers, administrators, the scientific community and among the civil society (community at large), making them appreciate the value and usefulness of research and its benefits to society.
- This will assist in eliciting their support.
- This aspect of national capacity building in appreciation of research has been neglected, hence needs attention.



# Different types of capacity

- Need to be developed in different groups besides the capability to conduct research.
- The use of the **media to bring the outcome of research to the people**, especially in developing countries shows room for improvement.
- It is also important to build up capacity among different groups of **potential research users so that they can make use of relevant research information and findings**.
- This includes the capability to do **evidence based policy analysis** and **formulation** (policy analysts working with policy makers), and **critical appraisal** of publicly available health information (for general public).

# Institutions and Infrastructure

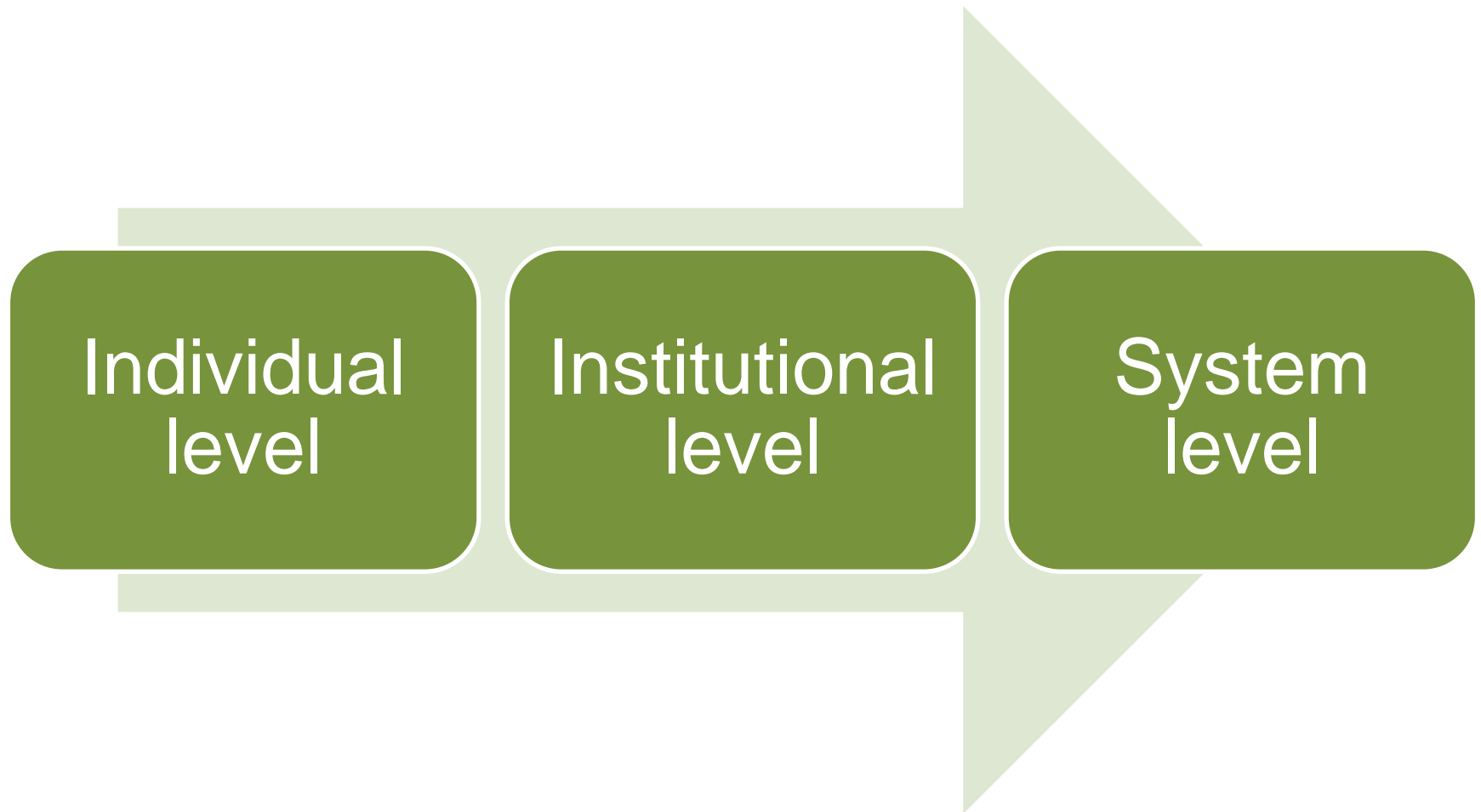
- This implies the need to carefully plan for infrastructure necessary to support present and projected needs for research activities.
- It is to be noted that in most developing countries, there is an under-usage of capital equipment.
- Mandatory schemes for equipment sharing may be needed specially, those items that are of high cost.
- This may require 'pooling' of the use of capital items, with the responsibility taken away from departmental heads that stake a personal claim to them.



# Existing and available researchers

- Besides producing more capable researchers, it is important to **pay attention to the maintenance and effective use of existing and available researchers.**
- Appropriate plans to use the **trained personnel are crucial for sustainable capacity development.** The training should be relevant to the present and projected needs.
- The relevant institutions should have specific plans and support to make **proper use of those who have received the training.**
- Continuing professional development activities have to be instituted to make all staff to keep abreast of developments in their respective fields.

# Capacity Strengthening at different levels





# Individual level

- A critical mass of researchers competent in

- Basic,
- Clinical,
- Epidemiological,
- Biostatistical,
- Health systems and policy and
- Social sciences

performing quality research of national relevance and of scientific importance, has to be

- built,
- maintained
- retained.







# Individual level

Capacity building strategies include

- graduate and postgraduate programmes,
- learning by doing approaches in the form of **development or seed grants**
- **hands-on training** in ongoing research programmes
- **institutional partnerships** between developing and developed and/or developing countries





# Individual level

- Capacity strengthening at individual level has focused in the past exclusively on the procedures of research, i.e. researchers
- Recently, this focus has been enlarged to include other **stakeholders** such as:
  - decision-makers and managers
  - health workers at the various levels of the health system
  - research managers
  - community members



# Individual level

- While **technical competence** (in protocol development and data analysis) is obviously a key element in capacity strengthening, there is a growing recognition that other aspects of the research process have to be included as well, such as
  - priority setting,
  - networking and leadership,
  - communication,
  - translation and dissemination,
  - advocacy,
  - promotion and negotiation, and
  - partnership development



# Institutional level

- Identifying and training the proper balance of individuals with expertise in generating (and using) knowledge is only a very first step in capacity building.
- In order to maintain the interest and commitment of researchers, the research environment has to be enhanced.





# Institutional level

Success of RCS was found to be associated with

- capable and committed **scientific leadership**,
- continuity of **funding** of research,
- ability to attract a **core of dedicated young scientists**,
- adequate and appropriate **infrastructure** for research (building and premises),
- adequate **equipment and supplies** including modern communication facilities and scientific literature,
- scientific **linkage** to another institution
- stable conditions of **service with adequate payment**



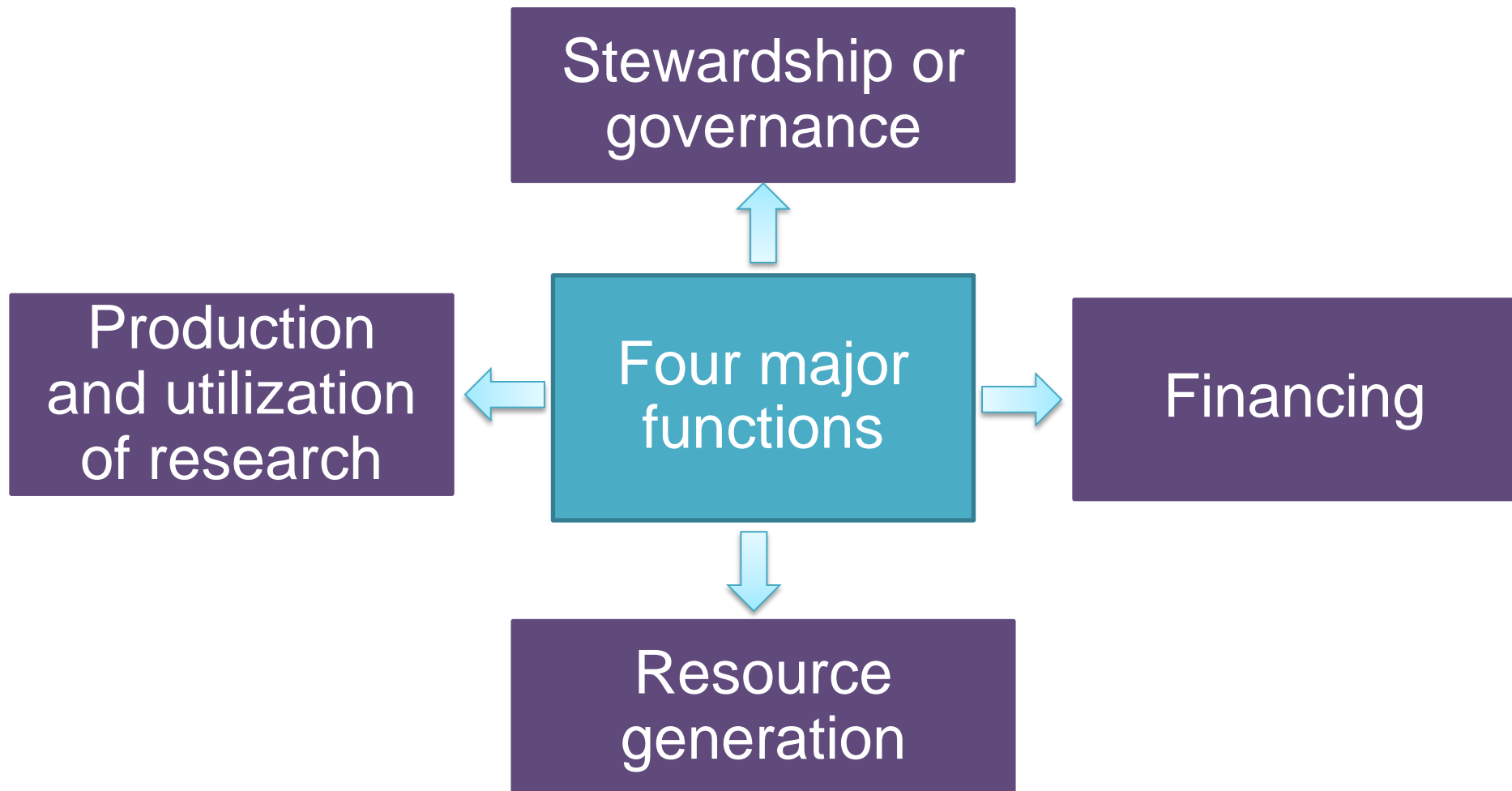
# The macro or system level (the health research system)

Identified the following system characteristics, creating an enabling environment for researchers:

- range and breadth of researchers
- transparency of the funding process
- quality of the workspace and facilities
- encouragement of collaboration with others
- opportunities to present, discuss and publish results
- relevance of health research activities
- remuneration of health researchers
- nurturing of careers
- training and continuing education
- access and sharing of information.

# The macro or system level

## (The health research system)



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# The macro or system level (the health research system)

## Stewardship or governance

which encompasses "a range of activities intended to ensure that the health research system demonstrates **quality leadership**, is productive, has **strategic directions** and operates in a **logical manner**"

## Financing

which refers to securing funds, both national and external, and to allocating these funds to institutional or individual providers to deliver research products





# The macro or system level (the health research system)

## Resource generation

or "the production, maintenance, improvement and retention (of capacities) of individuals, institutions and infrastructure, required for the production, utilization and management of health research"

## Production and utilization of research

which includes the production of new research and the synthesis of existing research and the utilization of research in policy, practice and action



# Capacity strengthening in various phases of the research process

Looking at research both in its production and utilization dimension, research can be conceptualized as an iterative and cyclical process, a continuum with **various steps steering the process from knowledge production towards the use of this knowledge into policy, practice and action.**

The following key steps are involved in this process:



- Managing the research agenda

- Producing evidence

- Promoting the use of evidence

- Utilizing evidence in policy, practice and action

# Capacity strengthening in various phases of the research process

## Managing the research agenda

Managing the research agenda includes two sub-components:

- setting priorities for research and
- aligning resources towards research priorities.

## Producing evidence

The production of evidence encompasses two types of activity:

- production of priority research and
- synthesis of research to produce a body of knowledge.



# Capacity strengthening in various phases of the research process

## Promoting the use of evidence

- To maximize the chances that research evidence will be used, it first has to reach potential users, it has to be **disseminated either passively** (e.g. newsletters, websites, mass media) or **more actively** (e.g. workshops, specific meetings with opinion leaders, audit).
- The **challenge of dissemination** is to improve the accessibility of research findings to those one tries to reach.
- This means to **identify clearly who are the intended and potential users of the research**; to ensure the physical availability of research materials to as large as proportion of the target audiences as possible; and to make research findings comprehensible to those who receive them.

# Capacity strengthening in various phases of the research process

## Utilizing evidence in policy, practice and action

- Asking the right questions and allocating resources to address them,
- producing and/or synthesizing high quality research projects and
- promoting the use of the research outcomes

are major phases in a process leading to its ultimate phase: increased **evidence-based policies, practices and actions in the broad field of health and the organization, management and delivery of health services.**



# Clinical Research Capacity Strengthening in LMICs

Highlighted key points and strategies for developing strong clinical research capacity in LMICs

- Improved clinical research mentoring opportunities, both institutionally and individually.
- Academy **networks** that can offer learning and support opportunities.
- Support for LMICs to define their **own clinical research agendas**.
- **Strengthened national and regional networks.**

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# Conclusion for Clinical Research Capacity Strengthening in LMICs

Highlighted key points and strategies for developing strong clinical research capacity in LMICs

- Increased health **research funding** from national governments as well as from international donors.
- **Advocacy** and research diplomacy to demonstrate the impact of clinical research.
- **Improved career pathways** for clinical researchers in LMICs.



# Training Workshops conducted in DMR

## (Oct 2018-Oct 2019)

<b>Sr.</b>	<b>Titles</b>
1	Effective presentation for health data
2	Qualitative Methods in Health Research
3	Responsible Conduct of Research and Research Ethics
4	Research Management and Research Information
5	Good Laboratory Practice and Biosafety
6	Research Methodology
7	Capacity Building Workshop for Institutional Review Board (IRB) members
8	Data Management
9	Short course on Literature Search and Reference Management
10	Research Methodology (for PhD candidates)
11	International Conference on Harmonisation and Good Clinical Practice (ICH-GCP)
12	Essentials of Statistics for Health Research
13	Scientific Writing
14	Translating Research into Policy and Practice
15	Institutional research capacity strengthening in conducting implementation research

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# Conclusion for Clinical Research Capacity Strengthening in LMICs

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3. Thiers FA, Sinskey AJ & Berndt ER (2008). Trends in the globalization of clinical trials. Nature Reviews Drug Discovery 7, 13–14.



# Thank you!



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