



Strengthening clinical research capacity in low- and middle-income countries

Executive Summary

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Key Context

A wide range of skilled individuals is essential for the development of clinical research and the translation of this knowledge into improving health. Despite the World Health Organization's (WHO) declaration in 2004 that 'well planned health research is fundamental to the improvement of health in all countries'¹, the reality remains that the vast majority of clinical research continues to be designed by and conducted on a small minority of the world's population living in high-income countries.² In order to strengthen clinical research in any country or geographic region, an important starting point is to understand the existing capacity of trained and active clinical researchers within that area. Such information can help develop policies and interventions to strengthen clinical research capacities.

Medical and health research councils in low- and middle-income countries (LMICs) have recognised a lack of expertise in health economics, epidemiology, anthropology and health policies coupled with a shortage of staff with statistical, analytical and managerial skills. These limited capacities pose a serious challenge for the effective translation of clinical research questions, the development and implementation of comprehensive research proposals and the ability to oversee complex clinical research projects.

In the discussions and regional breakout sessions of this workshop held at the Academy of Medical Sciences in London, participants discussed key gaps and barriers to clinical research, notable successes, opportunities to address the gaps and barriers, and finally collaborations to improve clinical research in LMICs. Using the outcomes from these discussions, participants identified several key themes that could contribute to progress in this important field.

Gaps and barriers

Workshop participants identified a number of key gaps and barriers in clinical research capacity across the different regions of the world:

- It was noted that there is a wide variation in funding commitments and sustainability from different countries which makes planning more challenging.
- The allocation of funds and setting of research priorities in many LMICs was deemed disjointed with poor decision-making.
- The appraisal of research by policymakers and public awareness of these activities are not sufficient to strengthen clinical research capacity in many countries.
- Workshop participants also noted a lack of resources and capacity, including role models, key skills, grant governance, education, clear career paths and early recognition and nurturing of promising young scientists.
- Language skills and workload capacities were other key gaps and barriers which participants felt were currently hindering clinical research capacity across different regions.

Successes

Despite these challenges, workshop participants were able to identify a number of examples of successes and high-quality clinical research in LMICs:

- There have been a significant number of networks established between and within countries, with regional networks having particular success.

- In certain countries, governments have committed and delivered a high portion of their gross domestic product (GDP) into research and development, bringing substantial benefits to the research community.
- Some world-renowned scientists have had a positive impact in encouraging young people to enter the field of clinical research and in demonstrating its benefits to society.
- Participants also noted examples of substantial funding for, and initiatives designed to, strengthen clinical research across different regions.

Opportunities

There are many opportunities to further strengthen clinical research in LMICs and to address some of the gaps and barriers identified by workshop participants:

- Career pathways in clinical research could be formalised, and incentives could be created to reduce the likelihood of the best scientists emigrating.
- Participants felt that recognising the potential of young scientists, and promoting the practice of clinical research early on in the course of professional training could help to attract good students into research.
- They also recognised that more should be done to introduce young scientists to the many stakeholders who have an interest or involvement in clinical research, and stressed the importance of maintaining strong communication with those sectors and with the public.

Collaborations and the role of national academies

The workshop concluded with discussions on opportunities for further collaboration between institutions and individuals:

- This included utilising the organisational structures of centres of excellence in LMICs.
- Mentorships, internships and institutional twinning were seen as key opportunities to effectively collaborate and strengthen clinical research across regions.
- Academies may be able to help by identifying regional funding opportunities, and by promoting networks through which local stakeholders could become increasingly engaged with clinical research.

Conclusions

Workshop participants quoted several examples of ways in which LMICs have successfully managed to promote and support their clinical research workforce. These complemented the discussions and highlighted key points and strategies that are needed for developing strong clinical research capacity in LMICs, including:

- 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.
- 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.

In order to make this possible, funding should be made available to map clinical research capacity and its environment, rather than simply determining the current state of research capacity. This would allow investigations into existing programmes and reveal where the gaps lie so that investment can be directed into delivering the correct solutions.

1. World Health Organization (2004), Geneva. World report on knowledge for better health: strengthening health systems.
2. Thiers FA, Sinsky AJ & Berndt ER (2008). Trends in the globalization of clinical trials. *Nature Reviews Drug Discovery* **7**, 13–14.

Opinions expressed in this report do not necessarily represent the views of all participants at the event, the Academy of Medical Sciences, and partner organisation (to be updated depending on partner) or its Fellows.



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