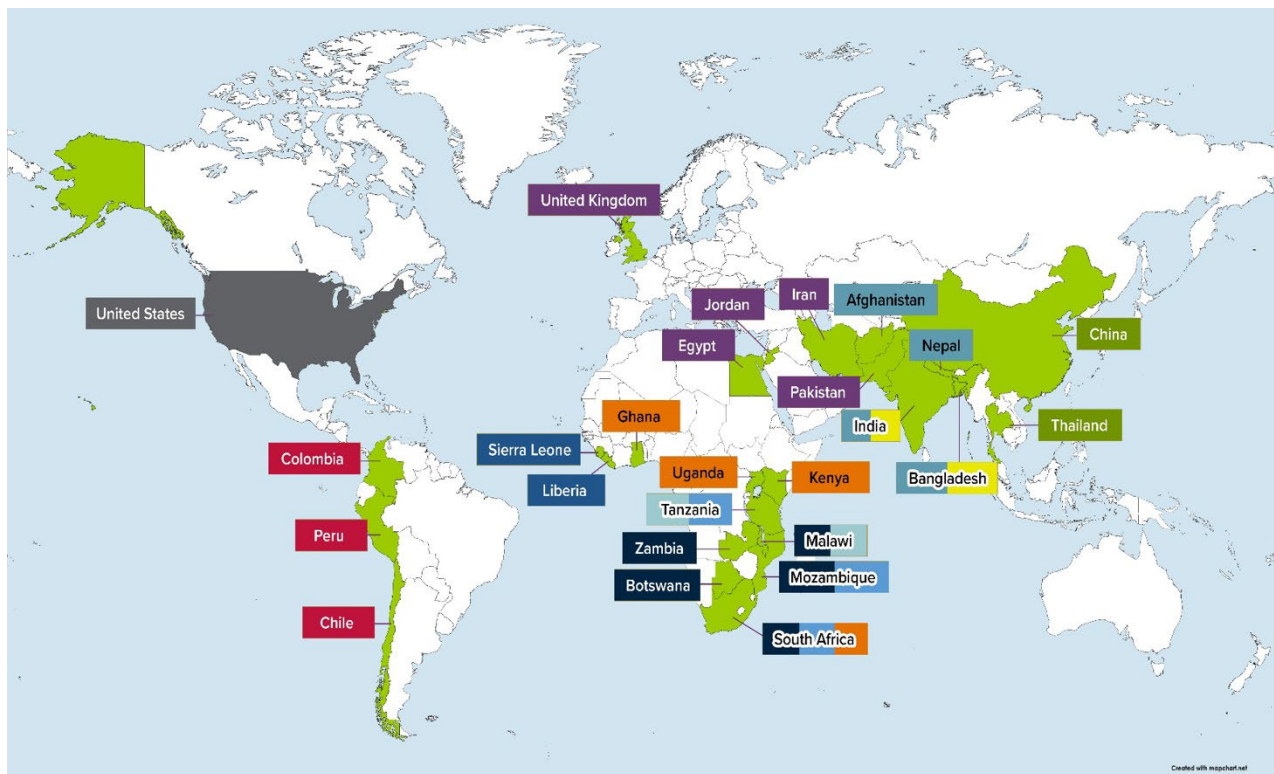


Scale-up Hubs:
Conversations and Lessons Learned
May 11-13, 2022

Summary of Proceedings

National Institute of Mental Health
Center for Global Mental Health Research



Scale-Up Hubs Map Key

- Detection and Integrated Care for Depression and Alcohol Use (Project DIADA)
- Enabling Translation of Science to Service to Enhance Depression Care (ESSENCE)
- Partnerships in Research to Implement and Disseminate Sustainable and Scalable Evidence Based Practices in sub-Saharan Africa (PRIDE SSA)
- Partnership in Implementation Science for Geriatric Mental Health (PRISM)
- Sub-Saharan Africa Regional Partnership for Mental Health Capacity Building (SHARP)
- School Health Implementation Network (SHINE)
- Strengthening Mental Health and Research Training (SMART Africa)
- Southern African Research Consortium for Mental Health Integration (S-MhINT)
- Suicide Prevention and Implementation Research Initiative (SPIRIT)
- Youth Functioning and Organizational Success for West African Regional Development (Youth FORWARD)

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Executive Summary

Scaling mental health research to meet the complex needs of low- and middle-income countries (LMICs) requires navigating challenging circumstances such as limited resources, administrative and staff changes, public health crises, and difficulties in securing local leadership buy-in. In May 2022, the National Institute of Mental Health (NIMH) Center for Global Mental Health Research (CGMHR) hosted a workshop for its Scale-up Hub research teams to review accomplishments and lessons learned. The discussions were structured to elicit insights that could help CGMHR enhance its investigator support and investment in global mental health research. The discussions centered on five themes:

1. Partner Engagement & Policy Impact
2. Capacity Building
3. Implementation Trials
4. Cross-hub Knowledge Exchange & Collaboration
5. Committee Function & Impact

Five integrated perspectives emerged from the discussion, outlining a set of potential efforts for CGMHR to consider going forward. These were:

Align with Existing Policies and Programs: To develop sustainable changes in low-resource settings, the research community will need to consider the local socio-political environment and integrate their efforts within existing policies and programs. By assessing the needs and resources of local and national governments, researchers can develop or adapt context-specific interventions.

Engage Leadership and Policymakers: Engaging local and national partners early in the research process helps build rapport and trust, facilitating the implementation of sustainable changes. Researchers should understand and incorporate stakeholders' priorities and objectives, involve them in decision-making processes, and maintain consistent communications throughout the project.

Adapt to and Balance Stakeholders' Needs: Local communities and target populations have unique needs and face real-world hurdles, such as limited access to health facilities and insufficient mental health workforces. Researchers should adapt to these needs by involving the community in the decision-making process, modifying interventions as needed, and tailoring training programs in a culturally appropriate way.

Reinforce the Research Ecosystem: Researchers can be challenged by limited staff, financial constraints, insufficient training programs, cultural barriers, and access disparities. Overcoming these barriers requires a multi-pronged effort to streamline administrative processes, increase flexibility in grant mechanisms, fund specific capacity building initiatives, and promote career development.

Incorporate Diverse Expertise: Multidisciplinary teams with diverse skill sets and local expertise can enhance success and foster innovation. Researchers should build teams with experts from various disciplines, engage local partners, and ensure that teams have the necessary training and resources for capacity building.

Promote Cross-Hub Collaboration: Cross-hub collaboration should be promoted through annual and quarterly meetings, regional meetings, site visits, and collaborative tools. Addressing barriers to

participation, such as language and internet limitations, can promote equitable access. Encouraging junior investigators to participate in meetings and collaborations can foster diverse participation.

Introduction

Historical Overview

The National Institute of Mental Health (NIMH) Center for Global Mental Health Research (CGMHR) is committed to enhancing the availability and accessibility of culturally appropriate, affordable, and high-quality mental health services. CGMHR's mission is to leverage the knowledge and experience gained from low- and middle-income countries (LMICs) to address the challenges of mental health service delivery in these regions and beyond.

LMICs often face a lack of qualified mental health service providers, underfunded mental health systems, and inadequate and overburdened infrastructure. Fear of social exclusion, a lack of evidence-based treatments, mental health literacy gaps, and a reluctance among policymakers to prioritize mental health can often result in delayed mental health diagnosis and treatment. These challenges can be exacerbated by humanitarian and public health crises, which disproportionately affect LMICs, further straining an already limited mental health system. To overcome these complex barriers, adequate research capacity and implementation science strategies are crucial for scaling evidence-based mental health practices in areas with limited resources.

Launched in 2015, Scale-up Hubs supported the expansion of evidence-based mental health practices through policy and programs, implementation studies, and research capacity-building efforts. The Scale-up Hubs were strengthened by the inclusion of transdisciplinary junior-, mid-, and senior-level investigators who work together to share knowledge, tools, and strategies that help build research capacity and ensure that mental health services are implemented with fidelity and sustainability. The Scale-up Hubs also established partnerships with local and national governmental and nongovernmental organizations to promote the expansion and sustainable implementation of mental health services.

CGMHR currently supports a network of 10 Scale-up Hubs. These are (in alphabetical order):

1. Detection and Integrated Care for Depression and Alcohol Use ([Project DIADA](#)), in Latin America
2. Enabling Translation of Science to Service to Enhance Depression Care ([ESSENCE](#)) in South Asia, Middle East, and North Africa
3. Partnerships in Research to Implement and Disseminate Sustainable and Scalable Evidence Based Practices in sub-Saharan Africa ([PRIDE SSA](#))
4. Partnership in Implementation Science for Geriatric Mental Health ([PRISM](#)) in South Asia
5. Sub-Saharan Africa Regional Partnership for Mental Health Capacity Building ([SHARP](#))
6. School Health Implementation Network ([SHINE](#)) in the Eastern Mediterranean Region
7. Strengthening Mental Health and Research Training ([SMART AFRICA](#)) Africa Project in sub-Saharan Africa, West Africa and South Africa
8. Southern African Research Consortium for Mental Health Integration ([S-MhINT](#))
9. Suicide Prevention and Implementation Research Initiative ([SPIRIT](#)) in South Asia
10. Youth Functioning and Organizational Success for West African Regional Development ([Youth FORWARD](#)) in West Africa

Workshop Objectives and Methods

On May 11-13, 2022, CGMHR hosted a workshop for the 10 Scale-up Hub research teams. The workshop was designed to facilitate knowledge and experience sharing across five themes:

1. Partner Engagement & Policy Impact
2. Capacity Building
3. Implementation Trials
4. Cross-hub Knowledge Exchange & Collaboration
5. Committee Function & Impact

Through a series of small group conversations and facilitated panel discussions, workshop participants provided insights and perspectives to improve and enhance NIMH's investment in global mental health research. Workshop participants also shared their accomplishments and lessons learned, outlining strategies to strengthen the impact of Scale-up Hubs in LMICs.

The following sections provide key insights from each of the five themes and a synthesis of these perspectives to inform potential efforts going forward.

1. Partner Engagement & Policy Impact

Overview

Researchers may face structural barriers that hinder their ability to integrate, implement, scale, and sustain mental health programs in LMICs. Cultivating and sustaining partnerships between researchers and key stakeholders can help overcome these barriers, but researchers must navigate evolving policies and priorities, high staff turnover, and governmental changes. The lack of stable infrastructure, such as policies that support sustainable funding and a trained workforce to maintain a program, can also hinder long-term impact on the community. Workshop participants talked about the ways their teams adapted to and persevered through these shifts. They shared both barriers and success stories when engaging with multiple partners and working towards long-term policy impact. Three trends emerged from their discussions: 1) the importance of identifying relevant priorities and policymakers early in the process, 2) challenges in and solutions to building and sustaining stakeholder relationships, and 3) factors that affect long-term impact to communities.

Identifying Relevant Priorities and Policymakers

One common lesson learned was the need to understand the local and national policies and priorities of communities and countries of interest, as well as the relevant government stakeholders prior to initiating a research program. Specifically, workshop participants recommended that researchers:

- Seek to understand the larger picture of the country's national priorities and policies, government hierarchies, and existing infrastructures early in the research process;
- Identify key stakeholders at every level of government and understand their potential roles in the research and implementation processes;
- Align research priorities with national priorities. The research proposal can then be framed as mutually beneficial, therefore enabling or accelerating implementation.

Building and Sustaining Relationships

Workshop participants agreed that cultivating relationships with policymakers, government administrators, and local programs could be a lengthy, time-consuming process that often requires starting over each time there are governmental changes or staff turnovers. Workshop participants recommended several approaches to overcoming this challenge, such as:

- Start stakeholder engagement early in the research process and broaden engagement to multiple stakeholders across both local and national agencies and organizations. If possible, leverage existing relationships between researchers and stakeholders.
- Understand the power dynamics across local, regional, and national governments and ensure that communication lines are appropriate and sensitive to those dynamics.
- Ensure continuity of communication across local, regional, and national settings by meeting regularly with stakeholders, inviting stakeholders to research team meetings, and providing regular updates on research successes and barriers.
- Cultivate buy-in and a sense of ownership by inviting policymakers and partners to co-create methods, materials, communications, and policies.

Supporting Long-Term Impact

Some workshop participants shared success stories about the long-term impact their research program had on the community; others shared ongoing challenges that prevented sustainable change. Some participants expressed concerns about funding structures and requirements as barriers to long-term

impact of the studies. Workshop participants discussed multiple ways to promote long-term impact. Common recommendations included:

- Seek to understand community needs and priorities, then align intervention and implementation approaches to directly respond to those needs.
- Ensure that materials are culturally appropriate and translated into common languages of the region.
- Develop standards of practice, data collection tools, evaluation metrics, and certification programs that support the integration of interventions into existing programs and practices.
- Work with NIMH to identify elements needed to support PIs and institutions when faced with funding and administrative requirements uncommon to LMICs, short grant timelines, and funding specifically for sustained implementation.
- Promote a robust pipeline of mental health researchers with training in policy and partnerships.

2. Capacity Building

Overview

Capacity building is challenged by multiple inequalities, with varying regional access to resources such as funding, technology, and partnerships, and individuals demonstrating diverse skill sets, research literacy, and language proficiencies. Additionally, service delivery staff often have limited availability for training activities and may not be able to prioritize capacity building efforts. Structural barriers also impede capacity building efforts.

Workshop participants shared their experiences with structural barriers and their successes in addressing some of these challenges. Three trends emerged from their discussions: 1) the need to involve local leadership and policymakers in capacity building efforts; 2) challenges managing limited and disparate resources across different regions and groups; and 3) the importance of tailoring training efforts to community needs, interests, and abilities.

Involving Leadership in Capacity Building

Internal hierarchies, communication constraints, and preconceived ideas about research and mental health among stakeholders and policymakers can often impede progress. The ability of stakeholders, such as policymakers, to engage in capacity building may be adversely impacted by internal hierarchies, communication constraints, and preconceived ideas about research and mental health. Workshop participants shared specific strategies to encourage engagement, such as:

- Demonstrate how research can be helpful for policymakers to solve their challenges (The power of demonstrations). Engage policymakers in capacity training to demonstrate how research can inform policy. Evaluate and address the policymakers' readiness for change.
- Create a portfolio of successful examples that demonstrate how critical the involvement of government leaders is to ensuring research that aligns with national strategies on mental health care.
- Demonstrate the value of capacity building by developing specific roles, responsibilities, and metrics of success (e.g., number of grant applications, career advancement, policy, or social changes).
- Collaborate with leadership to identify feasible long-term projects and sustainable funding solutions to maintain efforts after the funding and timeline for initial research is complete.

Managing Limited and Disparate Resources

Workshop participants talked about how differences in the availability of time, technology, funds, and skills created inequalities across communities, regions, and hubs. Workshop participants discussed several approaches to overcoming inequalities and providing equitable access to training opportunities, such as:

- Recognize that highly sought after investigators have competing priorities and identify strategies that enable them to prioritize capacity building.
- Provide flexible and adaptable training schedules for capacity building activities to incentivize all staff to participate.
- Ensure that individuals have institutional support for engaging in research.
- Assess the feasibility of technologies, such as virtual platforms or WhatsApp, to encourage participation. Recognize that some groups have limited access to those technologies and develop alternative approaches for participation.
- Create partnerships with institutions and neighboring countries with different levels of resources and infrastructure to share knowledge and resources.

Increasing Engagement and Interest

Targeted training programs can often be more effective than broad, centralized effort. Understanding individual needs and interests encourages strong community relationships, cultivates buy-in, and evidences the value of capacity building. Workshop members shared their lessons learned in understanding and meeting the needs of individuals and communities, for instance:

- Identify individuals who would benefit most from support and focused training efforts on their specific needs (e.g., mental health gaps, manuscript writing, proposal development, data management, research methodology).
- Assess the landscape of research literacy and tailor training to meet different levels of literacy and skill (e.g., basic statistics, how to read a research article, how to write a research article).
- Adjust training frequency and intensity to balance between staff schedules and capacity needs.
- Use training approaches that resonate with and engage the specific individuals and communities such as short courses, internships, global fellowships, journal clubs, mentorships, matched peers, newsletters, and small research grants.
- Recognize that virtual and in-person events have different qualities and choose the format that best serves the needs of individuals and communities.
- Translate courses into the community's primary language and address the role of English in terms of reading and writing publications.

3. Implementation Trials

Overview

Implementation science in mental health should be viewed through a systems lens which involves an interdisciplinary, multi-level approach that acknowledges constant changes, tightly linked components, and non-linearity of changes. Participants emphasized the need to engage communities in the research process to incorporate the cultural context and apply system thinking to ensure that real-world benefits are reflected in interventions and implementation approaches. Intervention research can identify effectiveness as well as the minimal “dose” of the intervention. Follow-on implementation research can help identify factors that promote scaling an intervention in low resource settings. Workshop

participants reviewed outcomes from their implementation pilots and programs—which were largely successful, even when adapting to major shifts caused by crises or emergencies such as the COVID-19 pandemic. They suggested several ways that NIMH could enhance implementation research, such as developing a learning network for addressing real world developments, supporting the development of robust adaptation processes, embedding provisions for specialized expertise, and extending funding to measure long-term outcomes. Three trends emerged from their discussions: 1) the importance of aligning efforts with existing policies and programs; 2) the need to identify critical components, or mechanisms, of interventions; and 3) the benefits of measuring quality and fidelity over the long-term.

Aligning with Existing Policies and Programs

Understanding national priorities and strategic plans early in the planning stage helps researchers implement their interventions within existing policies and programs. Harnessing national priorities that arise from public health events, such as pandemics, natural disasters, or insurgencies, can raise the visibility of mental health needs and accelerate the implementation and scale-up of mental health services. For instance, workshop participants quickly worked to scale interventions during the COVID-19 pandemic in response to the increased need for mental health services. Participants recommended:

- Leverage existing relationships with payer organizations, advocacy groups, and Ministries of Health to facilitate the integration and expansion of mental health programs.
- Determine how a new program or policy could be integrated into existing clinical workflows.
- Demonstrate an intervention’s value across different contexts (e.g., how an investment in mental health can improve economic outcomes).
- Assess shifts in government structures, priorities, protocols, and available resources and be ready to adapt implementation efforts. Capitalize on lessons learned from capacity building to rebuild relationships, renegotiate agreements, or expand into different environments.

Identifying Critical Components

It is important to identify the critical components of an intervention to successfully scale its use in low resource settings. Modifying interventions for the context can also promote more efficient delivery, delivery by trained community or lay providers, and potentially greater uptake. Several workshop participants described the need for understanding the mechanisms of an intervention and the minimum set of components needed for success. They shared their lessons learned such as:

- Seek to understand daily workflows and settings to better assess the potential for scale-up and barriers to implementation.
- Implement interventions in multiple sites to understand practical needs across different populations and settings. Use an iterative approach to identify the components that work in these real-life settings.
- Address the need for cultural adaptations by embedding the participant’s point-of-view and daily routine, then identify which components could be changed without loss of fidelity.
- Utilize qualitative analyses to identify cultural factors important in an intervention and theoretical models to simplify the process of identifying mechanisms.
- Recognize that a critical component of an intervention is its delivery modality (e.g., asynchronous learning platforms, embedded services, provider motivation). Ensure that service delivery is effective within real life settings and provides equitable access.
- Engage, if possible, the intervention’s developer to help create a minimum viable product.

Ensuring Quality and Fidelity

As interventions are implemented on a broader scale and for a longer term, there is a need to conduct ongoing assessment to ensure quality of care. Measures of success can also increase provider and policymaker confidence, which could promote sustainability and build momentum for future research efforts. Workshop participants talked about the approaches they used to assess the effectiveness of and fidelity to their interventions, such as:

- Collect qualitative data, which are just as (and sometimes more) important than quantitative data in terms of fidelity, generalizability, and impact on daily lives. Qualitative data from providers could also highlight their motivations for testing the intervention.
- Collect economic outcome data to present a compelling case for funding mental health care and process data to demonstrate how policymakers can integrate an intervention into existing programs.
- Employ specialized expertise, such as clinical monitors or medical anthropologists to help assess impact to the community and ensure high quality care.

4. Knowledge Exchange & Collaboration

Overview

Workshop participants recognized the importance of investing time and resources in cross-hub collaboration and highlighted the value of knowledge exchange and strong relationships. They identified the need for a robust research ecosystem to support career development and invest in the future global mental health workforce. Additionally, workshop participants addressed the challenges arising from insufficient research ecosystems and proposed solutions such as increased funding and access to implementation science tools. The major themes of their discussion were 1) fostering collaboration and capacity building through investment and 2) improving the research ecosystem.

Fostering Collaboration and Capacity Building

Workshop participants emphasized the importance of south-to-south collaboration, cross-hub conferences, and information sharing to build relationships and enhance capacity building. They also stressed the importance of investing in junior staff, who could use training opportunities and cross-hub onsite visits to expand their roles and responsibilities, thus cultivating a new generation of global mental health researchers. They agreed that early career investigators did not lack motivation, but rather opportunities for intense focus and learning. Specifically, their recommendations were to:

- Provide early career investigators with opportunities to present their research, network with established investigators, and collaborate on joint projects such as publications or grant applications.
- Promote structured collaborative agreements and onsite visits between hubs. This would allow junior staff to learn from their peers in different settings and gain the exposure necessary to extend their careers.

Improving Research Ecosystems

Workshop participants agreed that investment in junior staff and inter-hub collaboration only worked if there was a sufficient research ecosystem to sustain the effort. They reviewed several challenges related to the lack of a research ecosystem, such as limited exposure to international settings, inadequate career development opportunities, and insufficient skill development for critical research activities such as grant writing. These challenges could undermine a junior staff member's confidence and jeopardize

their commitment to the field. Workshop participants suggested that the research ecosystem could be enhanced by NIMH initiatives to:

- Provide additional funding to foster collaboration and capacity building.
- Develop and disseminate tools to support the translation of research to policy and practice.

5. Committee Function & Impact

Overview

In addition to the annual cross-hub meetings, participants generally viewed regular Hub steering committee meetings as a good opportunity for networking and information sharing. However, sometimes meeting topics did not resonate with all investigators. Workshop participants talked about approaches to overcoming equity barriers and ensuring that meetings were relevant, objective-centered, and convenient to attend. They also talked about opportunities for collaboration and productivity outside of committee meetings. The trends that emerged from their discussions included: 1) promoting equitable access to meetings, 2) identifying priority topics and targeted outcomes, and 3) ensuring that the timing and location of meetings was optimized for full participation.

Promoting Equitable Access

The workshop participants reflected on the structure of the steering committee meetings and looked for opportunities for participation of all researchers and to elevate involvement by junior researchers. Workshop participants agreed that steering committee meetings should be strategically planned to reach underrepresented participants, such as those with language barriers, those outside of meeting time zones, and those with limited internet access. In addition, meeting planners should proactively engage junior investigators in discussions by better understanding their needs, interests, and value of their contributions. Specifically:

- Leverage virtual platforms, such as Zoom, to increase participation. Use Zoom's language translation tool to overcome language barriers. Address time zone barriers by staggering virtual meeting times according to region.
- Encourage participation from junior investigators using breakout groups, incorporating their topics of interest, and providing clear communication about the value of their engagement.
- Develop a repository of online resources (e.g., videos, models, and tools) and alternative informational resources (e.g., newsletters, regional checkpoints, and asynchronous content) to increase access to information. Evaluate engagement with these tools to determine their value and to target future efforts.

Identifying Priorities and Desired Outcomes

Occasionally an investigator could generate momentum for specific meetings and deliverables, but their topic of interest was not always relevant across all Scale-up Hubs. Understanding common needs could ensure that generalizable topics (e.g., implementation science, data sharing) were addressed by larger efforts, such as the annual committee meeting. Specific meetings or collaboratives could provide opportunities for motivated individuals or groups to focus on a region-specific priority. Workshop participants generally agreed that meetings structured toward a specific goal would be more likely to have tangible, useful outcomes. Common recommendations for improved meetings included:

- Coordinate Scale-up Hubs with common interests and sponsor or support joint meetings with specific objectives.

- Rotate the spotlight on different Scale-up Hubs so that each has an opportunity to highlight their activities, successes, and lessons learned. For instance, one hub could sponsor a newsletter focus, present on their site-specific activities, or develop products such as posters or papers.
- Structure meetings with clear objectives. Annual meetings might be best as an opportunity for NIMH updates, brief highlights from hubs, broad topics, and networking opportunities. Smaller, more directed meetings could focus on specific deliverables or outcomes. Access to resources, such as meeting facilitators or best practices for objectives-centered meetings, would also promote productivity.

Determining Optimal Timing and Location

Post-pandemic, workshop participants felt there was an opportunity to return to a consistent meeting schedule and structure. In addition to regional barriers, such as internet access and different time zones, Scale-up Hub teams often had several competing work priorities. Although Zoom increased access to committee meetings, workshop participants felt that occasional in-person meetings or site visits were invaluable. Finally, workshop participants generally agreed that, although formal meetings had value, there were also opportunities for informal collaborations. They recommended that NIMH:

- Continue to hold annual committee meetings, but limit any other formal meetings to quarterly check-ins.
- Identify and promote opportunities for organic learning, such as onsite visits, smaller sub-committee meetings, or other ad hoc collaborations.
- Hold in-person meetings, such as at NIMH headquarters, to encourage networking and partnership development.

Accomplishments & Lessons Learned

At the conclusion of their discussions, workshop participants reviewed the approaches that were most helpful to their success, the challenges that stalled or redirected their activities, and strategies that would best support their future work. These perspectives were synthesized into six overarching guidelines for success, supported by lessons learned and recommendations for enhancing NIMH-funded mental health research in LMICs.

Align with Existing Policies and Programs

Understanding the socio-political environment is essential for the successful implementation of mental health interventions. This proactive approach helps navigate complex settings and needs, which supports the development or adaptation of context-specific interventions. Early in the research process, researchers may:

- Identify and navigate relevant policies and programs prior to study initiation to grasp the socio-political landscape of local communities, countries, and regions.
- Comprehend the special circumstances involved with fragile and post-conflict environments, regions with limited resources, and settings with inadequate research infrastructure. Recognize that these settings will often endure shifting socio-political environments, frequent employee, and administration turnover, and overburdened and/or untrained staff.
- Assess the needs, existing resources, and gaps in mental health services across both local and national governments to increase the likelihood of successful and sustained implementation.

Engage Leadership and Policymakers

Workshop participants agreed that early engagement with local and national partners, government leadership, and policymakers was a significant facilitator for success. Early engagement builds trust and rapport, which is especially crucial for sustaining the work after the research is completed. Researchers should:

- Promote early engagement with policymakers and at different stages of the research process to build and sustain trust. This ongoing relationship cannot only promote the integration, adoption, and sustained implementation of mental health interventions, but it can also provide researchers with insights into upcoming administrative or strategic shifts.
- Seek to understand stakeholder strategic priorities and objectives. Ministries of Health and local government officials may have a specific vision that guides their approach to policies, programs, and initiatives. Framing research efforts and outcomes within this context can demonstrate the value of the research program and foster critical buy-in.
- Empower stakeholders from the community with a sense of ownership by involving them in decision-making processes. Provide regular updates to keep them engaged.

Adapt to and Balance the Needs of Different Stakeholders

Local communities and target populations that are directly impacted by mental health services may have unique needs outside of broader governmental priorities. These needs may center around local culture, staff availability, and service affordability or accessibility. Additionally, there may be differences in research literacy and skills, which could result in a mismatch between training programs and actual need. It is important for researchers to quickly adapt to community needs and real-world hurdles. Workshop participants talked about strategies that were successful for overcoming these challenges, suggesting that researchers should:

- Encourage community involvement in agenda-setting and decision-making processes, ensuring that interventions are culturally appropriate, locally relevant, and address the specific needs of the target population. This can involve persons with lived experience.
- Prepare to modify interventions or implementation strategies to accommodate shifting priorities or limited resources. Researchers may have to alter timelines, which can create the need for additional funding to sustain a project beyond its original timeline.
- Reduce provider burden and improve accessibility and affordability of evidence-based interventions for communities.
- Assess skill and knowledge gaps and tailor training programs to different levels of research literacy, training needs, and research interests.
- Foster cross-hub (cross research group) collaboration across projects or regions to identify novel partnership strategies. Sharing insights and lessons learned can help researchers navigate challenges and identify solutions.

Reinforce the Research Ecosystem

Scaling mental health services in LMICs can be challenged by limited staff, financial constraints, insufficient training programs, inequities in access to resources and technology, and cultural barriers, among others. The lack of a robust research infrastructure can strain researchers' resources and hinder progress. Overcoming these capacity building challenges requires approaches such as streamlining administrative processes, targeting funds for capacity building initiatives, increasing flexibility in grant mechanisms, supporting research focused on long-term outcomes, and promoting junior investigators'

career development. Deploying systems thinking to understand these challenges is imperative. NIMH could improve its investigator support through initiatives to:

- Reduce the administrative burden of grant writing.
- Extend grant duration to account for project delays, reach study goals, and develop succession and sustainment plans.
- Offer larger grants so that researchers are not forced to seek and apply for several small grants.
- Target grant mechanisms for research that evaluates long-term outcomes and impact, sustainable interventions, and scale-up approaches.
- Facilitate mentorship and training opportunities through flexible training grants to support career development of junior investigators.
- Provide continued training to Program Officers to improve the understanding of the unique challenges of GMH Research.
- Develop robust monitoring and evaluation processes to assess the effectiveness and sustainability of interventions. Both quantitative and qualitative data are necessary to demonstrate value and to support the development of policies and practices.
- Invest in workshop-identified priority areas such as:
 - Access to care through child-serving institutions (i.e., schools).
 - Sociopolitical aspects of access to care.
 - Preventive mental health support.
 - Supply and demand of mental health service provision.
 - General education on mental health disorders for communities.
 - Person-centered approaches and horizontal services.
 - Development of alternative evaluation metrics.
 - Task shifting approaches in low-resourced areas.

Incorporate Diverse Expertise

Multidisciplinary teams with diverse skill sets can enhance success and foster innovation by offering different perspectives and problem-solving approaches. Additionally, incorporating local expertise can ensure that context and lived experience is embedded in the intervention, which helps ensure its sustainability and acceptability. Specifically, researchers should:

- Build research teams that include subject matter experts from various disciplines, such as policy, implementation science, economics, training development, software development, and graphic design.
- Engage local partners, community members, and non-academic stakeholders to gain unique insights about the local context and community needs. This would enable researchers to tailor their interventions and ensure they are culturally appropriate.
- Ensure that research teams have the necessary training and resources needed for capacity building. Investing in junior researchers' skills and knowledge will also promote career development and ensures a robust global mental health workforce of the future.

Promote Cross-Hub (inter-group) Collaboration

Cross-hub collaboration among Scale-up Hubs should continue to be promoted through annual committee meetings, quarterly meetings with specific objectives, regional meetings and site visits, and collaborative tools such as resource centers. Addressing barriers to participation, such as language, time

zones, and internet limitations, can promote equitable access. Actively engaging junior investigators can foster diverse participation. Specifically, NIMH should:

- Continue the annual committee meetings and consider an occasional in-person meeting at NIMH headquarters.
- Initiate structured quarterly meetings with concrete objectives.
- Support regional committee meetings and site visits.
- Develop alternative collaborative tools, such as a rotating focus on different hubs and a resource center of best practices.
- Promote equity by ensuring that all can participate or obtain access to information through tools such as Zoom translation and asynchronous learning.
- Proactively encourage junior investigators to participate in meetings, collaborations, training programs, and site visits with other hubs.

Conclusion

By fostering collaboration and knowledge sharing, the Scale-up Hubs workshop provided an opportunity for research teams to leverage their diverse experiences and expertise to identify a comprehensive set of strategies for success.

Appendix A: Participants

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Keng-Yen Huang

Yen Huang

Zill-e- Huma

Reem Jarrar

Tasneem Kathreen

Sue Levkoff

Kate Lovero

Nagendra Luitel

Emmanuel Mac-Boima

Lisa Marsch

Sally McGhee

Mary McKay

Milena Mello

Abby Morrison

Steve Mphonda

Abel Mwebembezi

John Naslund

Fileuka Ngakongwa

Maria A. Oquendo
Deepa Pandit
Sena Park
Vikram Patel
Soumitra Pathare
Brian Pence
Victor Pereira-Sanchez
Inge Petersen
Mary Lou Prince
Menan Rabie
Atif Rahman
Abdul Rahman Shahab
Deepa Rao
Juliana Lynn

Restivo Palmira Santos
Lori Scott-Sheldon
Teri Senn
Siranee Sihapark
Fred Ssewamala
Fernando Suárez-Obando
Zeenat Sultana
Kathleen Thompson
Sirinart Tongsiri
Will Torrey
Miguel Uribe
Milton Wainberg
THA Bussabong Wisetpholchai
Larry Wissow
Chifundo Zimba