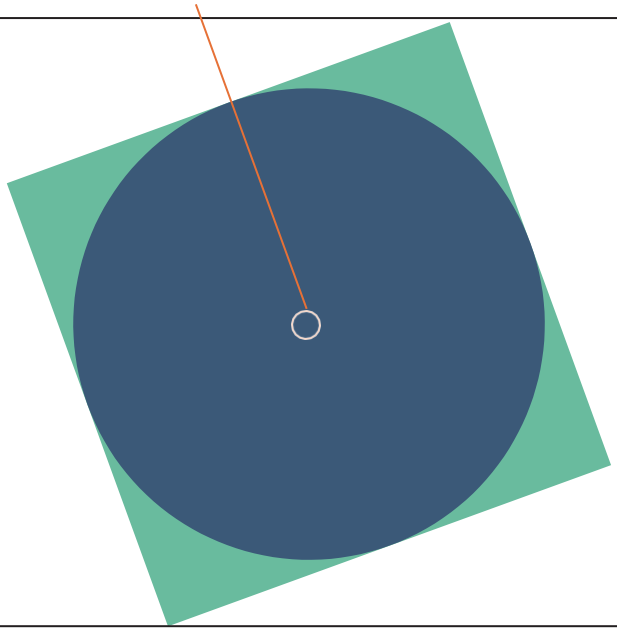
March 2024

Recommendations for Strengthening Research and Evaluation Capacity to Support Sustainable Health Programs



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DATA FOR impact

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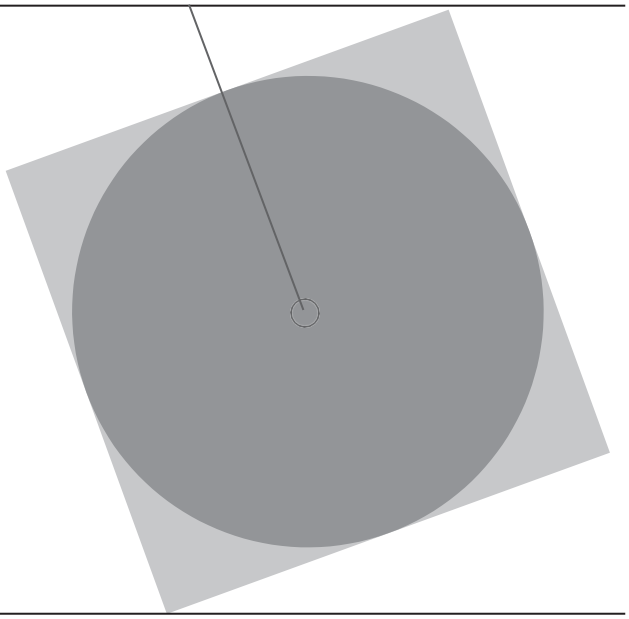

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Abbreviations

AHI	African Health Initiative
CSR	Center for Social Research
D4I	Data for Impact
DFID	Department for International Development
EIR	Embedded Implementation Research
FIC	Fogarty International Center
GEMNet-Health	Global Evaluation & Monitoring Network for Health
HIC	higher income countries
icddr,b	International Centre for Diarrheal Disease Research, Bangladesh
LCS	Local Capacity Strengthening
LMIC	low- and middle-income country
MOU	memorandum of understanding
M&E	monitoring and evaluation
NCD	noncommunicable diseases
PEER	Partnerships for Enhanced Engagement in Research
RECAP	Research, Evaluation, and Costing Action Plan
SHERA	Sustainable Higher Education Research Alliances
TWG	technical working group
USAID	United States Agency for International Development
WHO	World Health Organization

Introduction

There is growing interest, particularly among health program funders, in assessing and measuring the sustainability of country-level health programs. However, recent initiatives to promote sustainability have primarily focused on programmatic needs. This has led to research and evaluation that is part of programming receiving less attention. Further insights are needed on research and evaluation needs to support strong health programs. Since sustainable health programming requires continual assessment and realignment to meet evolving needs, it is important to have corresponding research and evaluation capabilities. Drawing on peer-reviewed and grey literature alongside interviews with a range of stakeholders both at the United States Agency for International Development (USAID) and in research organizations based in low- and middle-income countries (LMICs), this document summarizes the main findings and presents key recommendations to support sustainable research and evaluation capacity for health programs.

This activity was conducted under the Data for Impact (D4I) project. D4I, through a cooperative agreement, continues its long legacy of building evidence to improve health systems and programs. D4I supports countries to generate and use high-quality data to improve their programs, policies, and—ultimately—health outcomes. The project works in low-resource settings, applying innovative analytic methods that use existing and new data for policy and programmatic decision making.

USAID requested that D4I conduct an activity examining how to support sustainable research and evaluation capacity. Thus, this document was drafted with USAID as the primary audience. Additionally, it offers valuable insights and recommendations for USAID collaborators, including governments and research organizations, to enhance their strategies for evidence-based research capacity interventions. Since its inception in 1961, USAID has emphasized the importance of the long-term and lasting impacts of its investments. Throughout its history, terminology, initiatives, and policies have shifted to emphasize distinct aspects of sustainability. In recent years, there has been an increased focus on localization, including locally led development. In November 2021, USAID announced two targets:

1. Provide at least a quarter of their program funds directly to local partners by the end of Fiscal Year 2025.
2. For 50% of their programming to place local communities in the lead to set priorities, codesign projects, drive implementation, or evaluate the impact of their programs by 2030.

In this light, USAID notes the central role of governments toward advancing development objectives and aims to improve the tracking of project-based assistance and subawards for local actors. Thus, the recommendations presented in this document can help support USAID in achieving these targets.

Methodology

This guidance document is based on a review of published literature and key informant interviews. The identification of both peer-reviewed literature and grey literature, along with engagement with key informants, followed an iterative and snowball process.

Initial inclusion criteria for the literature included having been published between 2010–2022, being in the English language, and topical relevance (specifically, capacity strengthening in research and evaluation in global health). Following subsequent reviews, some recent publications were included in the document

review. Google Scholar and PubMed, which were our chosen databases, were searched by using key phrases and words[1]. From the pool of articles retrieved from the databases, a total of 35 peer-reviewed literature items were included in the review. Additionally, grey literature was explored to gain insights from more practical, field-oriented perspectives. For this, we utilized platforms like USAID websites, the Development Experience Clearinghouse (DEC), and general Google searches. The grey literature was divided into three categories, including reports from USAID funded projects, USAID policy documents for external audiences, and independently authored commentaries on USAID policies and approaches. A total of 53 documents and reports were identified for review, including 31 USAID project reports, 9 USAID policy documents, and 13 commentaries. Annex 1 provides full citations for each of the 88 documents reviewed.

Key informant interviews were conducted virtually among USAID staff and country-based organizations using a semi-structured approach. USAID Head Office staff involved in related projects, metrics, and partnership approaches were purposively selected to collect information about relevant resources and best practices related to health research capacity strengthening. Ten semi-structured interviews were conducted with USAID staff, which included:

- Center for Education (N=1)
- Global Health, Office of Health Systems (N=2)
- Global Health, Office of Population & Reproductive Health (N=4)
- Global Health, Office of Maternal and Child Health and Nutrition (N=1)
- Local, Faith, and Transformative Partnerships Hub (N=2)

Country-based organizations implementing research and evaluation activities were purposively selected through a snowball approach to gain insights about their experience working in research and evaluation and perspectives about key needs for sustainable research in their country. Thirteen interviews were conducted with country-based research and evaluation experts, largely based in sub-Saharan Africa and one in southeast Asia, which included:

- CSK Research Solutions- Tanzania (N=2)
- Center for Social Research (CSR), University of Malawi (N=2)
- Centre de Recherche en Reproduction Humaine et en Démographie (CERRHUD)- Benin (N=1)
- Data Research and Mapping Consult Ltd (DRMC)- Nigeria (N=5)
- Global Evaluation & Monitoring Network for Health (GEMNet-Health)- Ghana (N=2)
- International Centre for Diarrheal Disease Research, Bangladesh (icddr,b) (N=1)

Among the 23 participants, 14 were women and 9 were men. Materials named by participants during the interviews were included in the narrative review. Notes from the interviews were included in the analyses using the same coding and thematic content analysis approach as the literature.

The literature and interview notes were analyzed using the software Dedoose, which is a cloud-based

[1] Keywords included : “capacity strengthening”; “capacity development”; “capacity building” AND OR “implementation research”; “evaluation”; “operational research”; “implementation science”; “health system strengthening”; “research” AND OR “low-and-middle-income countries”; “LMICs; “global health”; AND OR “self-reliance” ; “localization”; “locally led”; “locally driven”; “local voices”; local engagement”; “local partners” ; “sustainability” ; “local systems”; “USAID”; “ownership”.

application for analyzing qualitative and mixed-methods research. Initial coding was completed using key conceptual terms with subsequent thematic content analysis. Annex 2 presents the codes that were applied across the peer-reviewed literature. Thematic analysis was conducted by reviewing the coded experts. Exploratory analysis was conducted using the analytical tools in Dedoose for code co-occurrence and word clouds.

Webinar

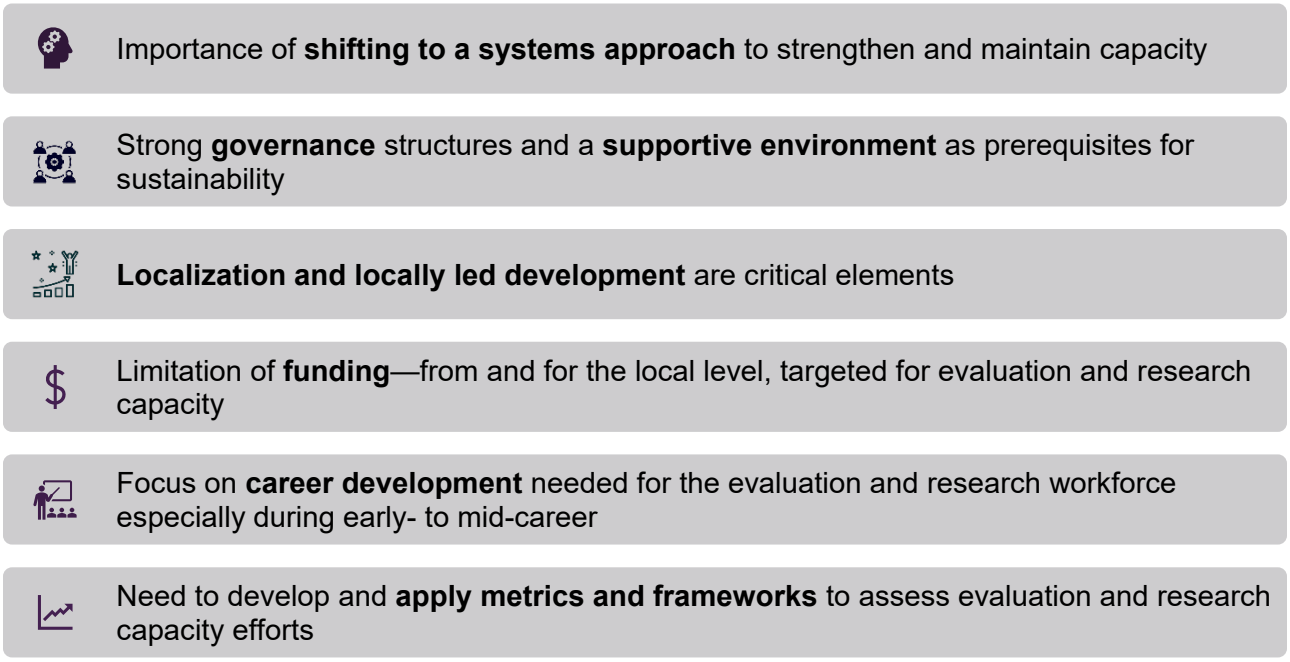
A webinar was conducted to present recommendations based on the findings and solicit additional input and feedback from the audience. Jamboard[2] was used to facilitate the discussion. After a presentation of a set of recommendations, the audience was invited to provide additional insights and reactions. A total of 454 individuals registered for the webinar, and during the 75 minute webinar, the largest number of logged in participants was 167. Attendees represented 53 countries across the Caribbean, Europe, North America, Oceania, South Asia, Southeast Asia, and sub-Saharan and North Africa. During the webinar, 66 participants entered the Jamboard platform. Participants were invited to provide their feedback in either English or French. Responses from the Jamboard are presented in Annex 3. After the webinar, these insights were reviewed and incorporated into the recommendations.

- [2] Jamboard is an online digital whiteboard for remote collaboration

Findings

Several themes emerged across the literature on strengthening sustainable research and evaluation capacity in LMICs. These themes were further corroborated and expounded upon through the key informant interviews. This guidance document presents findings and recommendations in relation to six themes as presented in Figure 1. Gender and equity considerations are explored as a cross-cutting theme and are discussed as part of the concluding remarks.

Figure 1: Themes from the literature review and key informant interviews



We present findings around these themes based on the literature review and key informant interviews. The presentation of findings is not exhaustive but rather highlights key elements that emerged from our work. Drawing on these findings and the feedback from webinar participants, we then present high-level recommendations for stakeholders working to sustain efforts to generate and use evidence in support of health outcomes.

Shifting to a Systems Approach

Findings from the literature review and key informant interviews suggest that having a *systems approach* is critical to fostering the sustainability of research and evaluation capacity needs. This aligns with USAID's Framework for Supporting Sustained Development, which emphasizes that sustaining any development outcome depends on the contributions of multiple and interconnected actors (USAID, 2014). Further inclusivity, which is necessary for effective and long-term sustainability, recognizes that all parts of society can make important contributions to sustain development outcomes, such as research and evaluation capacity (USAID, 2014). Additionally, USAID's capacity strengthening practices are grounded in a systems thinking approach; as highlighted in the Local Capacity Strengthening Policy, the first principle for effective programming of local capacity strengthening is to start with the local system (USAID, 2023a). However, in our review of the literature, there was limited evidence of how to strengthen research and evaluation capacity in the context of the local system. Applying a systems approach necessitates the recognition that capacity strengthening needs to take place at all levels (macro, institutional/organizational, and individual) (Franzen, Chandler, & Lang, 2017). Further, a systems approach yields more dynamic capacity development and facilitates organic change and local ownership. An example of an initiative that uses a systems level approach is the ESSENCE on Health Research, hosted at the Special Program for Research and Training in Tropical Diseases[3]. It is an initiative that allows donors and funders to identify synergies, establish coherence, and increase the value of resources and action for health research. One of its recent publications, titled *Effective Research Capacity Strengthening: A Quick Guide for Funders,* aims to "encourage research funders and their partners to use and improve on evidence-informed approaches to accelerating research capacity improvements among individuals and institutions within and across national and international boundaries"(ESSENCE on Health Research and CCR, 2023).

Figure 2: Approach to research capacity building using a systems lens

Adapted from Lansang, M.A. & Dennis R. (2004) Building capacity in health research in the developing world. Bulletin of the World Health Organization. 82(10):764-70.

Using a systems approach also considers actors across social levels within the system (e.g., individual, household, organizational, community, networks representing the government, civil society, private sector, universities and research institutes, and other entities entire system) and geographic scales (e.g., subnational, national, regional, global). It posits that the predominant actor and/or geographic scale is variable depending on the action. A systems approach inherently incorporates multiple stakeholders in a collaborative manner (e.g., researchers [academic and nonacademic; cross-disciplinary], program

[3] https://www.fic.nih.gov/About/center-global-health-studies/Pages/essence-on-health-research.aspx

implementers, policy makers at all levels of government community, subnational, and national). This comprehensive perspective is crucial because it recognizes that the effectiveness of research and evaluation efforts is not solely dependent on a single factor or actor. Instead, it is the result of the dynamic interactions among multiple stakeholders, each contributing from their position within the social and geographic hierarchy. Encouraging collaboration among stakeholders from various social levels and disciplines promotes the integration of diverse perspectives and expertise. This inclusivity enriches the research capacity process, leading to more innovative solutions and comprehensive capacity strengthening.

When a systems approach is not implemented, the tendency may be to focus on individual skill building, including over-investing in high-performing individuals rather than strengthening the capacity of local institutions to develop researchers over time. It is important to acknowledge that investment at the individual level is often easier to implement and measure and is thus more common. However, the focus on the individual results in further challenges when those individuals leave the system, resulting in a knowledge and information gap. Individuals may leave due to a lack of opportunity to use their new skills and grow given the low resources available for research and evaluation activities in country institutions, or due to a lack of training opportunities (Younker, 2013).

The lack of a systems approach and the overall fragmentation of capacity strengthening approaches result in a shortage of national bodies that have the responsibility for coordinating priorities, developing policy, and translating evidence into action (Brinkerhoff, 2012). Approaches to capacity strengthening should emphasize systems thinking, which is the use of participatory approaches to understand context specific local needs, goals, and strengthening collective capacity across a range of local actors to influence change (USAID, 2021).

Recommendations

The recommendations in this theme are high level, and they center on strengthening capacity across all levels of the system, cross-learning, and collaboration. They offer valuable insights for USAID, other donors, implementing partners, and government agencies involved in research and evaluation programs in LMICs. Specific recommendations for implementing and fostering a systems approach include:

- **Involve all actors—including government, health service providers, scientists, and communities.** An inclusive approach is essential to achieving sustainable health systems' research. Routine communication and engagement across actors and a range of institutions (e.g., think tanks, health policy and planning units, advocacy groups, universities, intergovernmental organizations, nongovernmental organizations, and the media) is crucial. For example, forums such as science and policy exchanges can drive informed policy making and an aligned research agenda.
- **Conduct implementation research to build a body of empirical research** on the benefits of systems approaches. While the importance of implementing a systems approach is well documented, more research is needed to understand the implementation experience.
- **Invest in systems and institutional-level approaches to strengthen research capacity**. Having a strategy in place at the country level that emphasizes the importance of having a system approach and delineates how to ensure that local priorities are emphasized when implementing research and evaluation activities is critical.

- **Facilitate the cultivation and promotion of a culture that emphasizes research and evaluation capacity**. It is important that in this promotion there is a shared responsibility across all levels of the health system and that efforts toward capacity strengthening incorporate long-term planning across a group of stakeholders to foster a strong research and evaluation workforce.
- **Incorporate training and capacity strengthening efforts into existing pre-service and in-service training programs**. Linkages to higher education are needed for long-term sustainability. It is important to tie higher education into strengthening capacity for sustainability and supporting locally led solutions. Additionally, the health systems need to establish stronger linkages with academic institutions and vice versa to address the gap in research and evaluation within the health systems and a lack of practical experience in the academic institutions.
- **Strengthen networking for better collaboration**. Networks can facilitate knowledge adaptations, lead to collaboration and identification of new opportunities, and help build intellectual and social capital which enhances the ability to do research. Strategies for developing networks include national researcher registries (with online access), networking events, and increasing accessibility to scientific conferences, seminars, workshops, and public forums.
- **Emphasize the importance of having a culture of research and evaluation within the health system for routine data**. Advocate for the recognition of research and evaluation and work to strengthen research and evaluation units within the health department at the district level, as this will reduce the burden of clinical staff who are also responsible for research and evaluation efforts at this level.

Governance and a Supportive Environment

Complex power relations and bureaucracy were found to limit both health research capacity strengthening efforts and the use of existing local capacity (USAID, 2014). Research and evaluation capacity that is sustainable requires government support, and based on the literature review and insights from key informants, there are several attributes that help to facilitate this (Box 1). Governance and management structures are also helpful in establishing a national health research system. Elements and tools required to implement and sustain such a system include priority setting, establishing and reinforcing ethical standards, conducting research and evaluations, and deepening a culture of evidence-based decision making.

Box 1: Attributes of strong governance and supportive environment

- Stable leadership
- Frequent engagement and internal assessment through processes such as a Strengths, Weaknesses, Opportunities, Threats (SWOT)
- Planning and needs assessments, including techniques such as joint actions plan
- Collaboration with a range of actors and partners
- Structured mentor-mentee relationships
- Mechanisms for increased transparency and accountability

Management should also be attentive to setting up structures within organizations and communities that foster a supportive environment. Sharing information within country and across programs can reduce redundancies and leverage effective use of resources. Although there is often a focus on building the technical skills needed to conduct research and carry out evaluations, there should also be an emphasis on other skills, such as project management. When projects are implemented, it is important to try to embed management and administrative functions permanently in the organizations rather than temporarily with the project (USAID, 2019). Ensuring a partnership mentality is also critical to having a supportive environment. The USAID Local Capacity Strengthening policy outlines four principles for equitable partnerships in local capacity strengthening; these include aligning capacity strengthening with local priorities, appreciating and building on existing capacities, being mindful of and mitigating the unintended consequences of support for local capacity strengthening, and practicing mutuality with local partners (USAID, n/d).

Further, a culture of evaluation is often not integrated within health systems. Since many government-supported programs in LMICs do not have adequately staffed or funded evaluation components, there is heavy reliance on outside donors to fund external evaluations. Several challenges toward fostering strong governance and a supportive environment were discussed through the literature review and from discussions with key informants. These challenges included: limited investment in research and evaluation, which is reflected in a poor data use culture where routine data are often not utilized to inform program decisions; the lack of research and evaluation personnel to support data usage within the public sector; and the view of evaluations as burdensome exercises that result in limited value add. While government and other stakeholders have an interest in sustaining the programs, funding remains a major challenge. Thus, country-led investments that support the establishment of sustainable research and evaluation capacity are critical (Lansang et al., 2004).

Knowledge translation involves moving beyond the dissemination of knowledge to the use of knowledge

(Straus et al., 2009). Knowledge translation is a key component of facilitating evidence-informed decision making, including the use of research findings for program improvement. A critical input for knowledge translation is timely and relevant data and research findings. Thus, having local research and evaluation capacity is a necessary prerequisite. Training researchers, evaluators, and other knowledge disseminators, such as the media, on not only how to conduct the research, but present, disseminate, and translate it in a way that facilitates knowledge translation and its use for decision making is essential.

In strengthening research and evaluation capacity, inclusion in knowledge translation is critical and is currently an area in need of improvement (Ghoshal & BonTempo, 2014). In their review of published evidence on the knowledge translation capacity of researchers in LMICs, Murunga et al. identified three key areas for improvement: the need for more high-quality research, the need for multifaceted interventions that address both institutional and individual knowledge translation capacity gaps, and the need to better design studies that evaluate innervations to enhance researcher knowledge translation capacity (Murunga et al., 2020). There is also a need for more evidence-informed decision making and evidence-informed health policy for evaluation and research capacity, specifically ensuring that interventions are aligned with the country's priorities. For example, the World Health Organization's (WHO) evidence-informed policy network (EVIPNet) is a mechanism introduced to reduce the research-to-policy gap. EVIPNet embraces cutting-edge approaches to knowledge translation for better health policy making; this includes leveraging the best available, actionable evidence to deliver policies that seek to sustainably strengthen national health systems[4].

Policies and frameworks for improving knowledge translation for decision making should include setting regular priorities for research for health, establishing a functional knowledge-sharing mechanism, and developing mechanisms for knowledge synthesis and exchange to inform policy and practice. Involvement of groups such as civil society organizations has been documented as being a crucial element of forming policy dialogue (Ingram, 2022). Further, capacity strengthening efforts should focus on ensuring that individuals can synthesize existing research outputs and apply existing knowledge toward interventions and performance of health systems (Baguios et al., 2021) There should also be a focus on impactful dissemination; this can include publications, conferences, workshop presentations, and direct engagement with policy makers (Franzen, 2017).

Recommendations

Strong governance structures and a supportive environment are critical to supporting the actualization of efforts to strengthen research and evaluation by local actors, donors, and international organizations. Most of the recommendations under this theme will be implemented by local governments, with USAID assuming advocacy and facilitation roles to support their execution. Recommendations to facilitate strong governance and a supportive environment for local research and evaluation capacity include the following:

- **Facilitate the formation of technical working groups (TWGs) made up of country-level stakeholders** who will engage in framing research questions; interpreting cultural context and language; and discussing how best to use findings for policy change, advocacy, and program strengthening.
- Donors and implementers should **consider governance and management aspects in programming**

[4] https://www.who.int/initiatives/evidence-informed-policy-network

and study design, with a specific focus on how efforts can strengthen local capacity and how activities contribute to overall sustainability.

- **Support partnerships and collaboration between national health programs and local universities**. This will help to ensure that research addresses national health priorities, policies support research, and research findings influence policy. Our findings showed that successful institutions benefited from strong links to policy makers. The benefit was two-fold as it affected institutions' ability to influence policy and also supported research capacity.
- **Reallocate budgetary resources toward health research and work on increasing and diversifying funding inputs beyond the government's annual budget.** Countries that make a clear commitment to enhancing their national health research systems must also make sufficient investments in developing their human resources, establishing infrastructure, and strengthening the research environment.
- **Establish a partnership mentality**. This includes establishing mutual trust, shared decision making, and respect for cultural differences; having clear communication; ensuring national ownership and having clear roles and responsibilities; adherence to local ethics committees or institution review board procedures for research; implementing early planning for translation of research findings; and developing national research capacity.
- **Strengthen government project managers' research skills and capacity to use findings for program improvement.** Although monitoring and evaluation (M&E) structures exist within government systems, many of them are not fully functional. Donors supporting some health sector programs within the system mandate that grantees incorporate monitoring components during program design. However, these systems often exist on paper without a fully internalized process and agreement about the importance of M&E.
- Prioritize **early and frequent engagement with policy makers** focused on research and evaluation goals and findings to help foster sustained political commitment and long-term investment.

Locally Led Development

Locally led development is a key focus for USAID and is often discussed in USAID-specific documents and by key informants. Locally led development is also a focus of one of the questions on the 2022-2026 Agency Learning Agenda, which specifically asks, “How can USAID more equitably engage local knowledge, assets, and practices and align programming with local priorities and metrics for success?” (USAID, 2022). Central to locally led development is ownership by country actors and incorporating local voices, priorities, and contributions at all levels in USAID’s development process. It is also critical to leverage and strengthen existing local capacity, for example, by looking to local organizations for contributions, examining what has already been done, and building upon those accomplishments (Ombonyo & Scanion, 2018).

USAID is deepening its localization agenda, targeting to direct at least a quarter of its program funds to local partners by Fiscal Year 2025, and aiming for local leadership in at least 50% of its programming by 2030 (USAID, 2023a). To monitor these goals, USAID has introduced the Locally Led Programs indicator, which assesses the extent of USAID-funded activities incorporating at least two good practices in local leadership across multiple categories, including leveraging and strengthening local capacity, engaging communities directly, working directly with local partners, and creating effective local partnerships (USAID, n.d.). These practices for locally led development, which are integral during the phases of priority setting, design, implementation, or M&E, are designed to ensure that local communities and partners are at the forefront of development efforts.

Understanding the local context is critical; for example, decentralization can have either positive or negative impacts on governance—although decentralization can improve representation of marginalized, geographically concentrated groups, it can also result in weakened administrative capacity (Jonathan & Erik, 2016). To facilitate locally led development research, programs should be designed to center on country actors. The involvement of the private sector, civil society, and public engagement are important to develop and implement locally led solutions (USAID, 2021a). Local researchers possess the best understanding of their communities' diverse culture and contexts, making them well-positioned to tackle local health challenges. Investing in these institutions' training and scientific proficiency not only cultivates a research culture and strengthens local ownership of research, but also guarantees the development of the most fitting solutions, which enhances sustainability over time (Majdzadeh et al., 2022; Malekzadeh, Michels, Wolfman, Anand, & Sturke, 2020)

The literature noted the important role of civil society in strengthening capacity. To facilitate sustainable research and evaluation capacity and the resources needed at the local level, civil society has a role in building local alliances and mobilizing local assets to conduct work. They can be a key player in building alliances, capabilities, and resources. One example of this is the Yetu Initiative (Box 2).

Box 2: Yetu Initiative as an example of civil society engagement in sustainable research and evaluation capacity

USAID, in partnership with the Aga Khan Foundation, launched the Yetu Initiative in October 2014. Fully embracing a collaborative, iterative approach, Yetu's work is rooted in enabling meaningful partnerships between civil society, the private sector, government, and ordinary citizens to create local solutions to problems affecting communities across the country. The Yetu Initiative posits that development outcomes are best achieved when citizens lead in addressing their own needs and mobilizing their own resources—financial, civic, social, human, political, and intellectual. This practice of "community philanthropy" enhances local ownership and empowerment, strengthens connections between communities and organizations that represent them, reduces donor dependency, and creates greater impact.

Collaboration and knowledge exchanges through cross-learning experiences facilitate building research and evaluation capabilities. There should be dialogue between scientists and non-scientists and non-health sector workers to develop and sustain health research capacity. Leveraging regional partnerships for sustained research and evaluation capacity can help to overcome some limitations in health research capacity, especially in areas where there are limited resources. However, to build local ownership, it is important to move beyond shifting work from developed settings to LMICs without changing the ways that implementation is carried out, since making the shift without examining what other fundamental changes are needed can limit or hinder success (Ditcher, 2014). USAID's approach to measuring locally led development included the USAID Locally Led Programs indicator, which "measures the percentage of active USAID-funded development and humanitarian programs that demonstrate the use of at least two good practices for local leadership across at least two categories in a given fiscal year." One of the aims of this indicator is to encourage USAID staff to promote local leadership and elevate local voices in their programming efforts (USAID, 2023a).

Additionally, centers for collaborative research can be used to facilitate the involvement of underrepresented groups or individuals in the research process. For example, USAID's Sustainable Higher Education Research Alliances (SHERA) is based on a model of robust grant oversight and continuous monitoring, research, and learning over the life of the program. SHERA was successful in producing remarkable results in research capacity of Indonesian higher education institutions in science and technology research, building capacity for future work across a range of institutions, and facilitating the long-term enhancement of Indonesia's higher education research capacity more generally (Institute of International Education, 2018). Another example is the Partnerships for Enhanced Engagement in Research (PEER) program (Box 3). The objectives are to build capacity, encourage collaboration between researchers in the Global South

Box 3: PEER Program as an example of a program that facilitates locally led development

PEER is an international grants program that funds scientists and engineers in USAID partner countries who collaborate with U.S. Government-funded researchers to address global development challenges. Since its launch in 2011, the PEER program has supported global research partnerships that achieve advancements across the full spectrum of discovery, from building new knowledge to piloting and scaling game-changing breakthroughs. Lead researchers for PEER are based in USAID partner countries and work in tandem with U.S. government-funded researchers.

and donor-based research, and support scientific research to address development challenges. There are several projects with this model including Feed the Future Innovation Labs, the UK Newton Fund, and the Netherlands Organization for Scientific Research-WOTRO Science for Global Development. Across these projects, elements of success include having longevity or a long history to establish long-term relationships with partners and stakeholders in both countries and with participating agencies.

Recommendations

Locally led development is foundational to sustainable research and evaluation capacity to support health programs in LMICs. Recommendations to facilitate locally led development include:

- **Ensure that funding opportunities are disseminated to local research partners** and increase awards to researchers in LMIC institutions and locally based research organizations.
- **Invest in training and supporting local organizations on compliance and management aspects for USAID program implementation.** Although some organizations are better suited to implement the programmatic aspects, compliance is also needed for successful fund management and to meet donor requirements. Thus, there is a need for training and capacity strengthening in this aspect, but also room for donors to **revisit systems and processes and modify them in a way that facilitates localization**.
- **Incorporate locally led development practices** into research and evaluation capacity measures to ensure local communities and partners are central in defining, implementing, and assessing research capacity efforts, aligning with USAID's broader commitment to localization.
- Ensure there is an **equitable distribution of labor and that partnerships are country-led,** especially when it comes to developed and developing countries' collaborations. Foster ways to overcome inequalities by creating opportunities for LMIC partners to have the role of the primary or principal recipient, ensuring that inputs from international partners are well defined and **facilitate cross-learning and research and evaluation capacity strengthening**.
- Prioritize local expectations and needs, with research and evaluation initiatives **co-created and led by local stakeholders** to align with their priorities.
- Engage in an extensive conversation with potential partners prior to agreeing to the partnership or signing a memorandum of understanding (MOU). **Dedicate the necessary time to develop a common understanding of research and evaluation needs** and establish a system for working, including one that delineates the benefits for each of the partners involved. This includes having transparent and candid conversations about cultural and contextual differences.
- **Invest in increasing opportunities for collaboration and cross-learning and establish policies that support local ownership;** ensure involvement of partners in the design, preparation, collection, and analysis phases and facilitate opportunities for learning across other institutions; for example, through visiting scholar programs or mentorship opportunities.
- **Embed capacity strengthening into research studies**, specifically to support early- and mid-career professionals to gain applied experience and grow their careers.
- Ensure that **publications include equitable authorship opportunities** and recognition of local research partner contributions. Facilitate ways for local research partners to be **present and lead conference presentations**. This might include budgeting for attendance and taking into consideration visa requirements prior to submitting applications or abstracts for conferences.

Funding

Achieving sustainable research and evaluation capacity strengthening requires significant investments in training, mentorship, and infrastructure development, amongst other resources. Unfortunately, funding for capacity strengthening that is specific to research and evaluation is often limited, posing challenges for organizations and individuals seeking to strengthen their skills. Research institutions receive funding from various sources, including government agencies, funding streams from local and international donor organizations, foundations, and rolling out paid short courses. However, available funding varies significantly depending on the region, sector, and focus of the research and evaluation. For example, in LMICs, funding for research capacity strengthening is often limited, with many organizations relying on short-term grants and contracts (Bennet, 2012). In contrast, high-income countries tend to have more established funding mechanisms, such as government grants and private foundations (Cooke, 2005). For example, in the United Kingdom, the National Coordinating Centre for Research Capacity Development has funded several Research and Development Support Units based in universities whose purpose is to support new and established researchers (Cooke, 2005). However, for countries that rely heavily on foreign external financing, there is a tendency for external actors to play a significant role in shaping their health research agendas (Tugwell et al., 2006). Further, many research institutes in LMICs rely on donor funding and frequently close when the funding/project ends. For example, in Uganda, the Health Policy Analysis Unit institute had limited success in attracting additional funding after World Bank funding expired, and government funding was insufficient to keep the institute operational. Similarly, when Department for International Development (DFID) funding ended, the Health Economics Institute in Bangladesh was still heavily reliant on it and was unable to sustain itself from other sources (Bennet, 2012). Through the key informant interviews, it was also evident that experiences with funding are varied (Box 4).

Box 4: The funding experience of icddr,b

The organization icddr,b has a unique history and experience with funding. They take on the prime role for projects, but also are sub for multicountry level grants with a Higher Income Country (HIC) institution as the prime. HIC institutions are generally the prime for multicountry projects. Icddr, b has unrestricted core funding from four co-donors including the Bangladeshi government, Swedish International Development Cooperation Agency, DFID, and Global Affairs Canada. They have two affiliated hospitals that provide free services to diarrhea patients, linked to the organization's role developing oral rehydration solution. The hospital is also funded using the unrestricted funds. The core unrestricted funds have supported the organizations work to strengthen staff skills from early to mid-career professionals.

Funders should recognize that effective and ongoing management, essential for enhancing monitoring indicators and collecting evidence, demands substantial human and financial resources. Therefore, it is important for funders to mandate that grant implementers plan definitive resources needed for these activities and provide information (Bates et al., 2006).

Collaboration with foreign groups was seen as a necessity in countries like Cameroon and Ethiopia, where local resources and funding were limited because foreign collaborations provided finances, access to material resources and human expertise, logistical and administrative assistance, and grant proposal support (Franzen et al., 2017). Further, funders can also allocate a portion of international funds to local research teams (Adam et al., 2011). As a case study, USAID is endorsing practices that involve collaborating

with local partners as direct funding recipients, involving local expertise within evaluation teams, and facilitating local subawards and subcontracts (USAID n/d). Under the new Locally Led Programs indicator, it is considered a "good practice" when non-local primary organizations intend to allocate a minimum of 50% of their subawarded funds to local partners (USAID, 2023a). Beyond funding availability, there is also the need to increase financial competencies, facilitate national ownership, and inform better national policy (Grepin et al., 2017).

Recommendations

Funding is a critical aspect of establishing and sustaining research and evaluation capacity. Although significant financial resources are spent on this effort, there is room to improve the financial systems and processes to facilitate lasting impacts. Recommendations include:

- **Facilitate the establishment of reliable and sustainable funding sources**. These may include allocating funding for research from the central government's training budgets, contributions from project participants toward the cost of courses, income from selling consultancy services, and externally funded research grants**.**
- **Having strong networks** that believe in the research conducted by institutions such as the icddr,b in Bangladesh has improved the likelihood of securing research grants.
- **Change the way international funds are distributed to LMICs,** to facilitate boosting the amount of domestic funds designated for research. Donors should consider increasing the proportion of their funds dedicated to health and policy research to expand the evidence base on how to build more robust health systems.
- Use funding to **strengthen national researcher capacity and to sensitize decision makers to the value of health and policy systems research**.
- Strengthen capacity around the development of **financial plans, establishment of fundraising strategies, diversification of funding sources, and access to longer-term program grants.**
- **Increase local investment in research and evaluation**; for example, implement small-scale grants targeted toward capacity strengthening which is aimed at meeting local priorities. There is also a need to evaluate whether external investments in research and capacity strengthening align with national priorities.
- **Integrate capacity strengthening into research implementation partnerships.** Adopt an integrated approach, such as combining training with small funding for research studies and providing access to a mentor or facilitator during the research process. This approach can effectively enhance research competency by supporting individuals involved in research activities.
- **Learn from and incorporate novel strategies** to finance national health research systems and capacity strengthening initiatives. For instance, some countries have implemented taxation and other financial mechanisms to generate funds for health research.
- Establish and provide more opportunities for **local organizations to be the prime implementor** or lead on research and evaluation projects and activities, increasing the proportion of subawards and subcontracts that go to local research partners.

Career Development

An emphasis on career development is one way to build and maintain research and evaluation capacity. One effective strategy to encourage and retain researchers in LMICs is to improve the in-country career structures. This can be achieved by providing career development opportunities that include access to courses aimed at teaching essential research skills. Career development opportunities require developing the appropriate skills and confidence that can help establish sustainable career paths and employment opportunities for researchers, which in turn helps to retain talent and support continued growth and advancement. Supporting the career progression of LMIC researchers to the status of independent investigators is a crucial aspect of nurturing a skilled and adaptable research workforce capable of tackling local health issues (Malekzadeh et al., 2020). Research competencies entail having the necessary skills and capabilities to conduct research and evaluation to inform health programs and health program strengthening. The identification of existing gaps and putting in place mitigation plans is the first step to being able to conduct technically sound research and evaluations. Empirical evidence suggests that developing research skills can produce a workforce that is better equipped to design and implement high-quality studies, analyze data, communicate findings effectively, and create positive attitudes toward conducting and collaborating in research (Cooke, 2005).

Training and Mentorship

Although evidence for effective approaches to strengthening research capacity in LMICs is limited, incorporating mentoring as a crucial part of short- and long-term training and integrating mentorship programs into preexisting training programs to train a significant number of researchers has proven successful in cultivating sustainable research competencies in various contexts (Adam et al., 2011; Lansang & Dennis, 2004; Busse et al., 2022). Additional strategies include developing short- and long-term formal training programs such as workshops, courses, seminars, fellowships, and higher education (Kellerman et al., 2012). Further, the development of skills for researchers should be set in the context of career development, including practice opportunities. Advocacy for career progression or “careers escalator” and opportunities to apply research skills through funding applications is also important (Cooke, 2005).

Although training and mentorship are effective in improving research and evaluation competencies, they need to be incorporated in existing pre-service and in-service training programs for sustainability. Strengthening institutional capacity for evidence use is complex and needs sustained political commitment and long-term investments (Franzen et al., 2017; Oronje et al., 2019). Institutional support and mentorship can be achieved in different ways, including by providing mentorship and supervision visits by program managers, developing a strong professional network, and seeking commitment from stakeholders (Oronje et al., 2019; Mugabo et al., 2015). Malekzadeh et al. reported that the efficacy of training programs is positively correlated with their comprehensiveness, as evidenced by the number of research projects and resulting publications. Such programs typically extend over a longer period of time and necessitate ongoing mentorship and support. Nevertheless, their implementation entails a considerable investment of both human and financial resources, rendering them more expensive and time-consuming, thus limiting accessibility to many organizations. Considering this, research organizations should invest in cost-effective training programs that cover a wide range of topics and adopt alternative approaches, such as online training programs, peer mentoring, and on-the-job training, which may be more accessible and cost effective. Additionally, regular evaluation of the effectiveness of training

programs is crucial, and necessary adjustments should be made to ensure that the set goals and objectives are being met.

Some structured and unstructured ways of supporting junior and mid-level scientists vary by thematic groups and needs. For example, local research organizations, like icddr,b, offer free training on topics like systematic reviews, data analysis, EndNote, etc. for staff through the different technical units within the organization. Such organizations also engage interns from all over the world, and junior and mid-level scientists are supported to apply for scholarships to study in post-graduate programs abroad.

Comprehensive training programs produce better results regarding the volume of completed research projects and publications that follow. They last longer and frequently require ongoing mentoring and support. Such trainings are more expensive, time-consuming, and difficult for many organizations (especially those receiving short-term contracts) to access due to the demands on both human and financial resources (Mugabo et al., 2015). Funders need to understand that the proactive management that is necessary to continuously improve monitoring indicators and gather evidence requires significant human and financial resources to demonstrate that sustainable capacity strengthening has been accomplished. It is, therefore, important for funders and grant implementers to plan definitive resources needed for these activities (Bates et al., 2006).

Examples of Research Capacity Strengthening Programs

Through our literature review, we identified several examples of research capacity strengthening programs that facilitated career development. Some of these examples are highlighted in the table below.

Table 1. Capacity strengthening programs

Research capacity strengthening program	Program description
The Chronic, Noncommunicable Diseases and Disorders Research Training Program (NCD-Lifespan Program)	The program aims to strengthen the research capacity of LMIC institutions so they can become national, regional, and international centers of expertise in NCD research; support multidisciplinary research training across the research continuum; train a cadre of LMIC scientists in NCD-relevant research that will contribute to scientific advances and changes in clinical practice and public health policy; support training-related research that is directly relevant to the health priorities of LMICs; integrate with existing NCD research and public health programs in LMICs; and strengthen core research support capabilities needed to manage grants at LMIC institutions (Malekzadeh et al., 2020).

Research capacity strengthening program	Program description
Fogarty International Center (FIC)	FIC's research training model has evolved from a focus on training in the United States to training in LMICs led by LMIC scientists. The FIC offers numerous career development programs for individuals in LMICs to strengthen their research capacity, such as the Global Health Program for Fellows and Scholars, which provides opportunities for research training in the United States and abroad (Malekzadeh et al., 2020).
Center for Social Research (CSR)	CSR focuses on offering short-course training to junior staff and thereafter go through the steps needed to fully incorporate them into the team. Trainings are offered on topics such as ethical review, grant management, data cleaning, analysis, and dissemination. However, limited funding does not permit them to include a larger number of staff in the capacity strengthening activities (Excerpts from key informant interview).
The SECURE Health training program	The program aims to enhance the capacity of health professionals and researchers to use research evidence in health policy. The program provides a comprehensive curriculum, including modules on evidence-informed policy making, research synthesis, stakeholder engagement, and communication skills. The program is designed to be flexible and can be delivered in a variety of formats, including face-to-face workshops, online training, and blended learning approaches. An evaluation of the health training program in Kenya and Malawi revealed "strong evidence that the training and mentorship activities had increased participants' awareness, technical knowledge and or skills" (Oronje et al., 2019).
Global Evaluation & Monitoring Network for Health (GEMNet-Health)	The program is dedicated to strengthening member institutions by providing them with access to high-quality training, research opportunities, and comprehensive M&E services. Its network facilitates organizational development, encourages collaboration, and fosters peer-to-peer support among health program evaluators worldwide,

Research capacity strengthening program	Program description
	establishing enduring institutional connections. With a diverse membership boasting a wide array of skills and experiences spanning the globe, GEMNet-Health is positioned to serve as a global hub for delivering technical assistance and capacity-building initiatives across a spectrum of M&E domains.
The African Health Initiative (AHI)	The AHI, funded by the Doris Duke Charitable Foundation, has supported collaborations between ministries of health to integrate research into the implementation of primary healthcare policies. These partnerships involved embedding scientists from local research institutions within primary healthcare systems and working alongside local-level implementation teams. The goal of this partnership structure was to enable projects to use Embedded Implementation Research (EIR) to strengthen the delivery of primary healthcare services. They aimed to demonstrate the value of EIR by not only improving healthcare delivery, but also by enhancing research capacity and promoting knowledge translation during policy implementation (Baynes et al., 2022). The AHI backed partnerships in two phases across six countries: Ghana, Mozambique, Rwanda, Tanzania, and Zambia in phase 1 (2009–2015), and Ethiopia, Ghana, and Mozambique in phase 2 (2016–2022). Importantly, each AHI partnership involved a United States-based university with a track record of supporting health development and building research capacity in sub-Saharan Africa.
The HaSET Maternal and Child Health Research Program	The program is a collaborative effort among esteemed medical and research institutions, including Harvard's T.H. Chan School of Public Health, Boston Children's Hospital, St. Paul's Hospital Millennium Medical College, and the Ethiopian Public Health Institute. A diverse team of epidemiologists, clinicians, public health experts, and policy makers works collectively to investigate the factors driving morbidity and mortality, and this

Research capacity strengthening program	Program description
	research informs the creation of interventions aimed at improving healthcare and health outcomes. Through its Maternal and Child Health Research Fellowship Program, HaSET trains postdoctoral researchers, doctoral. and master's students at Harvard and local collaborative institutions in Ethiopia. This training program includes financial support, technical scientific coaching, and mentorship to advance the health of mothers and children in Ethiopia and across the globe (HaSET, 2022).

Recommendations

Building and keeping a cadre of researchers and evaluators is critical to having the workforce in place to fulfill a country's research and evaluation needs. Investing in the career development of potential evaluators and researchers is integral and includes the following recommendations:

- Facilitate the establishment of policies that **support research and career development, equal access to career development programs** to support underrepresented groups, and sustainable career paths and employment opportunities to retain talent and support growth. This will create a supportive environment that encourages researchers to stay and contribute to the development of their country's research and evaluation capabilities.
- **Integrate training and mentorship programs into existing pre-service and in-service clinical training.** This approach will help strengthen institutional capacity for evidence use. To strengthen the education and training system for research and evaluation, it is essential to continuously assess training courses and revise the curriculum/workshop content.
- **Increase the numbers of qualified mentors and facilitators by** pairing senior and junior facilitators, involving faculty from both HICs and LMICs, creating thematic groups of mentors and mentees, and adopting the train-the-trainer interventions. Organizations can also involve those who have gained skills in previous research capacity strengthening initiatives to mentor and support novice researchers as they become experts.
- **Invest in training and building expertise in specific areas, and identify opportunities for cross-learning and knowledge transfer**. Investments in building expertise in handling big and complex data and statistical and analytical competencies include the ability to clean and analyze data. Increase linkages outside of health sciences (i.e., with anthropology and sociology departments) for qualitative skills.
- Provide **short-course training, internships, and skill development workshops for staff, with a focus on junior staff** where funding is limited. Courses can include topics such as ethical review, grant management, data cleaning, analysis, and dissemination.
- Involve high-level university authorities in **creating sustainable research career pathways** and focus

on including the development of **practical** (i.e., fieldwork and field placement) **and core skills** (i.e., project management and grant writing) into academic training programs.

- Facilitate mentorship and supervision, **including peer-to-peer learning opportunities and continuous learning,** such as keeping up-to-date with new research trends and methodologies around project management, evaluation, proposal, grant writing, and financial management.

Frameworks and Metrics

Frameworks, by nature, are multifaceted and include various functions or components. For example, Pang et al. (2023) discuss a conceptual framework and foundation for health systems research that includes stewardship, financing, creating and sustaining resources, and producing and using research. The process of designing a framework and platform should be inclusive and participatory, fostering ownership, which is likely to result in more utilization. Having a framework can help to determine which practices are more sustainable or can be developed for specific aspects that need strengthening (Oronje, Murunga, & Zulu, 2019). Generally, what is critical is the local context and the identification of a framework that works best in that context. Frameworks and models should always include local government agencies because this is foundational to strengthening health systems.

Contextualized frameworks and implementing a system approach are also critical to fostering sustained research and evaluation capacity. Prior efforts that implemented capacity strengthening through "standard packages" or universal models/frameworks were successful in improving operations and outcomes in the short term, but they did not lead to sustainable outcomes (USAID, 2021b).

The process of capacity strengthening should be deliberate. It is more than just training and should allow for application—any planning should be collaborative, and monitoring should be active with clear benchmarks for achieving goals established (USAID, 2014). Bates et al. used a four-phase framework (awareness, experiential, expansion, and consolidation) to evaluate health research capacity strengthening programs in four African countries using generic indicators that are common across projects and relevant for sustainable capacity strengthening (Bates et al., 2011). Evidence revealed that the indicators derived from case studies became more complex and sophisticated as the projects developed. The study recommended that indicators that are generic to all projects can be combined with those that are unique to individual projects, thereby creating the possibility of developing a tool for monitoring progress in capacity strengthening that could be applied and adapted for projects in different contexts. However, it is important to prospectively test whether these indicators are useful predictors of the ability of programs to achieve sustainable capacity in the long term and whether the indicators are helpful for identifying reasons why programs may not be sustainable.

Metrics are a critical component of evidence-informed programming. They play a key role in building both individual and institutional capacity by supporting a culture of data-driven decision making; enabling the development of skills and expertise in research and evaluation; and equipping institutions with the tools needed to design, implement, and evaluate effective programs, including capacity strengthening efforts. Measuring research and evaluation capacity is an ongoing process that requires regular adaptation to changing organizational needs and priorities (Bates, 2015). In their paper that discusses a systematic approach to organizational capacity strengthening for research in the health sector in Africa, Bates et al. (2015) delineate a five-step pathway for designing and evaluating health research capacity strengthening programs (see Box 5).

Performance metrics are a valuable tool for establishing accountability and transparency in research and evaluation activities, which can help maintain trust with funding agencies and stakeholders. They provide an objective way to measure progress toward specific goals and targets, identify areas for improvement, and guide decision making for future investments and resource allocation.

Additionally, using performance metrics allows organizations to continuously monitor, evaluate, and improve their performance over time. This strategy can help to promote their services and secure support for future initiatives (Bates et al, 2011). The USAID Local Capacity Strengthening (LCS) policy asserts that capacity is only recognizable when utilized, necessitating programs aimed at strengthening local capacity to plan for and measure improved performance—not latent capacity (USAID, 2021a). A thorough understanding of which indicators or metrics are suitable for health research and capacity strengthening and their relevance in different contexts is crucial to monitor program performance, measure achievements, and demonstrate accountability. While funders prefer a few common, reliable indicators to measure research capacity (e.g., indicators on peer reviewed publications, training programs, and workshops conducted for research capacity building and evidence of research being applied in practical settings), they also need to demonstrate the impact of projects in areas where direct attribution is challenging to establish. It is essential to strike a balance between easily measurable indicators and a more comprehensive evaluation of impact to ensure accountability and successful implementation of health research and capacity strengthening programs (Bates, 2015). The USAID Local Capacity Strengthening policy emphasizes that monitoring, evaluating, and learning from local capacity strengthening efforts should concentrate on tangible improvements in actors' and systems' performance, using inclusive, locally-led performance indicators and capacity action planning that adopt a local systems approach, rather than merely counting quantifiable aspects like training attendance or developed plans and procedures (USAID, 2021a).

Box 5: Five-step pathway for designing and evaluating research capacity strengthening programs.

1. Defining the goal of the capacity strengthening effort.
2. Describing the optimal capacity needed to achieve the goal.
3. Determining the existing capacity gaps compared to the optimum.
4. Devising an action plan to fill the gaps and associated indicators of change.
5. Adapting the plan and indicators as the program matures.

This can be achieved by developing a theory of change in line with expected outcomes, assessing long-term impacts with clear frameworks and data sources, incorporating capacity measurement in program evaluation, and delineating early-stage versus long-term indicators.

USAID has established two internal metrics to capture localization efforts. The first metric calls for allocating 25% of direct funding to local partners, which can include local research institutions. The second metric focuses on practices that help shift leadership to local actors during program priority setting, design, implementation, and measuring results. Additionally, USAID has developed three monitoring indicators (CBLD 9, 10, and 11) to measure capacity strengthening efforts. CBLD-9 serves as an indicator that focuses on measuring improved performance resulting from capacity strengthening efforts, specifically for U.S. Government-assisted organizations/entities. The guidance recommends tailoring capacity measurement methods to an organization's specific context and goals. CBLD-10, on the other hand, is used to measure progress in mobilizing non-donor resources. It is useful for measuring non-donor investments mobilized toward research capacity strengthening/improvement activities.

In addition to the need for indicators, the review of the literature highlighted the importance of guidance, tools, and training for leading and participating in evaluations. As such, there are several frameworks that can be useful for in-country health programs to adapt and implement. In their framework to evaluate

research capacity, Cooke (2005) highlights six principles of research capacity strengthening. These principles are based on the premise that research capacity building should develop skills and confidence, support linkage and partnerships, ensure the research is “close to practice,” develop appropriate dissemination, invest in infrastructure, and build elements of sustainability and continuity.

Some metrics-related gaps and challenges identified from the literature include:

- Generally, measuring capacity, especially in complex settings, is accompanied by challenges such as quickly outdated metrics that hinder tracking performance trends and a lack of understanding of what capacities should be measured (Levinger, 2021). Additionally, while measuring capacity at different levels (e.g., system, organization, community, individual) is simpler, recognizing and integrating the interconnectedness across these levels is crucial for a comprehensive understanding, as overlooking these connections may inadequately address the inherent complexity.
- Designing and monitoring research capacity strengthening initiatives in LMICs is challenging due to limited evidence to guide such efforts, which makes formulating a general approach complicated as each program is unique (Bates et al., 2011).
- Despite the potential benefits of theory-informed indicators of impact and sustainability, many evaluations lack the necessary time and resources to incorporate them. Consequently, there is a missed opportunity to improve knowledge and learning among funders and funding recipients regarding how to better plan, monitor, and evaluate health research capacity strengthening initiatives (Bates et al., 2011).
- The literature has identified a deficiency in the implementation of research capacity strengthening initiatives, specifically the absence of standardized metrics due to the lack of internationally agreed-upon metrics. To remedy this issue, it was suggested that a standardized tool for research capacity strengthening measurement be developed and required by funders for future grants. The tool should include precise definitions of indicators and measurement approaches, especially for abstract concepts like "number of research projects that impacted policy" (Hedt-Gauthier et al., 2017). On the other hand, USAID considers performance to be capacity made visible, and for measuring improved performance by organizations, they call for individualized metrics and measurement approaches, which is something that may not be achieved with a standardized tool (USAID, 2021a).
- Recognizing the challenges in evaluating research capacity strengthening initiatives due to their complexity and diversity, the literature on the subject suggests the importance of being explicit about the specific pathways through which change is brought about, and using indicators that reflect different stages of these pathways. This recommendation emerged in response to the lack of comprehensive information on the interrelationships along a “change pathway,” which made it difficult to measure progress in developing research capacity over time.

An important aspect of research capacity strengthening measurement that is scarcely discussed is measuring how capacity development efforts have led to improved performance over time, especially among organizations receiving capacity development support. Since performance improvement takes time, just implementing planned capacity development support may not necessarily imply improved

performance. Considerable efforts have been made by program implementers to design standardized tools to identify local priorities before implementing capacity strengthening activities. For example, the RECAP (Research, Evaluation, and Costing Action Plan) tool is a resource developed under the D4I project to assist local organizations with rapidly evaluating their technical and management capabilities to conduct research and evaluations. By facilitating the creation of actionable plans for institutional strengthening, RECAP aims to enhance the capacity of countries and organizations to address gaps in health information at the local level and increase their capacity to receive direct funding from USAID and other donors (Luben et al., 2022).

Recommendations

Well-designed frameworks and metrics are essential to structuring efforts targeted toward building sustained research and evaluation capacity and measuring progress toward achieving related goals. Recommendations for developing frameworks and applying metrics to USAID-funded programs and processes include:

- Implement **a common framework to guide the measurement of health research capacity strengthening efforts**. A common framework is crucial to enable effective comparison among various projects and facilitate real-time lesson learning.
- **Include performance measurement in project evaluation,** and conduct ex-post evaluations to understand whether performance improvements are sustained.
- **Facilitate gathering rigorous evidence** on the outcomes of efforts to strengthen health research capacity by **focusing on evaluation design, prospective measurement of indicators, and systematic linking of indicators in line with theories of change**.
- **Improve the design of indicators** in order to effectively measure research capacity. Indicators should provide information not only on knowledge production and capacity development at the individual level but also on changes in health system policies, programs, and practices.
- **Utilize indicators that focus on increasingly complex measurement of capacity**. Specifically, as projects mature, it is important to use indicators that can better capture the nuances of sustainable capacity strengthening.
- **Gather qualitative data and information** to capture information that is not easily quantifiable and as a way to contextualize other metrics and indicators.
- **Incorporate a flexible, context-informed, locally led approach** to performance measurement.
- Tailor research capacity measurement techniques to include **localized approaches** and indicators. These approaches should vary across different levels, as generic methods often fall short. The inherent uncertainty and complexity of dynamic environments demand that measurement strategies be both adaptive and attuned to the specific context.

Gender Integration and Equity

Throughout our purposive and targeted search of the literature to gather recommendations to support sustainable research and evaluation capacity for health programs, we were also mindful of considerations around gender integration and equity. Implementing a systems approach can help support equity. However, specific discussions around how to take into consideration gender integration and equity in research and evaluation capacity strengthening were limited. In the literature that did discuss this topic, specific mentions include the importance of increasing women's participation, preventing discrimination and violence against women, and conducting gender analysis.

There needs to be an intentional effort to address gender imbalances, including incentives to help mitigate them. For example, the Gender Equality and Female Empowerment Policy is designed to "improve the lives of citizens around the world by advancing equality between females and males, and empowering women and girls to participate fully in and benefit from the development of their societies" (USAID, 2018). The updated policy emphasizes that gender equality and women's and girls' empowerment are fundamental to achieving effective and sustainable development outcomes (USAID, 2023b).

A report on the implementation of the Gender Equality and Female Empowerment Policy highlights that although there is awareness among staff about these policies and Missions have developed structures to support gender integration, there is still some resistance to gender equality, female empowerment, and gender integration. There is also room to increase capacity on how to integrate gender into research and evaluation tools and how to measure progress beyond looking at sex-disaggregated data (USAID, 2016).

In light of these findings and our overall focus on providing actionable recommendations to support sustained research and evaluation capacity for health programs, we conclude with takeaways that are specific to gender integration and equity, as these cut across the themes highlighted in this paper. We would like to highlight the importance of being mindful of language competency, culturally variable communication styles, and culturally dependent expectations in relation to training and mentorship styles. Further, it is important to implement intentional efforts to address gender imbalances, including designing gender-sensitive training, encouraging female participation in research, and appointing women to lead research efforts. Applying a gender and social inclusion lens to all capacity strengthening activities is imperative; although system strengthening is vital, without a gender and social inclusion lens, it risks anchoring organizations in a system that benefits those who are already entrenched in male-dominated power structures. All stakeholders should promote and facilitate the systematic use of data to achieve greater gender equity, and lastly, capacity strengthening efforts should also be guided by principles of gender equity and the protection of the most vulnerable.

Conclusion

This document highlights important strategies for strengthening sustainable research and evaluation capacity in LMICs. The pivotal role of adopting a systems approach to enhance the sustainability of research and evaluation capacity within health systems is emphasized. Drawing from the literature and insights from key informants, it is evident that a holistic, inclusive strategy that engages a diverse range of actors across various social and geographic scales is essential for effective research and evaluation capacity strengthening. This approach aligns with USAID's principles, advocating for collaborative, multilevel engagement that extends beyond individual skill enhancement to foster systemic change and development. Challenges such as limited evidence on specific strategies for strengthening research and evaluation capacity within local contexts highlight the need for further empirical research and implementation studies.

The recommendations provided propose a multifaceted strategy to bolster capacity across all system levels, emphasizing the importance of cross-learning, collaboration, and the integration of systems thinking in capacity strengthening efforts. Key suggestions include engaging all relevant stakeholders, conducting implementation research to gather empirical evidence on the benefits of systems approaches, and investing in both systems and institutional-level strategies. Additionally, the promotion of a culture that values research and evaluation, alongside practical measures like integrating capacity strengthening efforts into existing training programs and fostering networks for collaboration, is advocated to address the current fragmentation and enhance the effectiveness of capacity strengthening initiatives.

USAID and other stakeholders should consider recommendations related to a supportive environment that focus on strengthening governance structures, facilitating TWGs for collaborative research, and ensuring equitable partnerships that respect local priorities and capabilities. Moreover, the need for frameworks and metrics that reflect the complexity of research and evaluation capacity strengthening is highlighted, along with the importance of locally led development initiatives that prioritize local knowledge and align with local metrics for success.

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Annex 2: Codebook

Code Title	Definition
Capacity Strengthening	Efforts to increase skills, competencies in a specified area (i.e., research, evaluation)
Historical efforts for CS/CB	What has been done (approaches, interventions, projects) in the past
Individual focus	Focus on individual researchers
Initial shift to systems focus	The beginning of systems approach interventions in international health, and historical efforts to transition from an individual focus to a systems focus
Missing voices and expectations of intended audience/end users	Lack of engagement of end-users
Recommendations for capacity strengthening	Recommendations for the future (approaches, interventions, investments, topical areas)
Better governance and management	Recommendations for government/managers to better organize themselves within their institutions in order to build/strengthen capacity
Frameworks/ evaluation (develop/apply)	Need to assess in a systematic fashion these efforts; evaluation including the use of frameworks
Increased collaboration in-country	Includes between institutions within LMICs, or users of findings (policymakers, implementers, etc.)
International collaboration	Collaboration between countries, partnerships between organizations in different countries, etc.
Shift focus to systems	Attention to systems (multi-disciplinary approach) i.e., policy makers, government officials. Media, providers, insurers, public. CSOs, CBOs, academia, etc.
Decentralization	Refers to the transfer of authority and control of an heath research programming to local offices and actors rather than a single one
Foster inclusivity	Including marginalized population sub-groups (women, youth, etc.) in capacity strengthening efforts, research production, leadership positions, etc.
Networking	Increase networking opportunities for young professionals to increase knowledge exchange, mentorship opportunities, and expose local actors to international resources
Use of technology and online media platforms	Increase the use of new technological tools and media to implement initiatives, measure results, and communicate them
Career development	Refers to training, investing in higher education/research roles
Funding	Financial support for research and evaluation activities
Human resources	Increasing skilled individuals for research and evaluation (across fields in management, research leadership roles, etc.)
Locally led development	Process in which local actors – individuals, communities, networks, organizations, private entities, and governments – set their own agendas, develop solutions, and bring the capacity, leadership, and resources to make those solutions a reality (from USAID 2021 fact sheet)
Metrics	Indicators for measuring sustainability, performance, change in capacity
Research/evaluation types	This code is used to flag different types of research
Clinical trials	Refers to health research efforts involving clinical trials
Implementation research/heath system research	Should include process evaluations, iterative research, mixed methods, heath systems, cost evaluations, qualitative research
Self-reliance/sustainability	Also referred to as ownership; A country's ability to plan, finance, and implement solutions for its development challenges; demonstrated commitment to see these

	through effectively, inclusively, and with accountability (USAID 2019)
Specific research competencies	Refers to specific research competencies used to develop and/or implement health research programs
Communication with lay audiences	Ability of research implementers to communicate findings to the general public
Gaps in research	Countries' gaps in research practices, inability to conduct certain types of research, inability to collect data, or inaccurate data/collection methods
Knowledge translation	Specialized field concerned with promoting uptake of research into policy and practice; goal is evidence-informed actions, decisions, policies (aka knowledge transfer, knowledge exchange, etc.)
Research production	Refers to ability of a country, agency, etc. ability to produce and conduct health research
Supportive environment	Refers to heath research implementers' ability to create an environment for all researchers to feel professionally supported

Annex 3: Webinar Jamboard Inputs

Webinar participants were asked to provide additional recommendations, thoughts, or insights on the themes that were presented in the webinar. Below are the responses that were provided; they have not been edited, and responses provided in French have been translated into English.

Importance of shifting to a systems approach to build and maintain capacity
Systems approach brings sustainability to projects.
Strengthen the capacities of national partners in learning activities and, above all, in participating in international meetings to share results.
I agree with recommendation as it applies even to Kenya, Capacity building is critical for it to work either through short courses, experiences or embedding it on curricula
This is pretty self evident. All work - in development, in research or within or across organizations should be a horizontal systems approach.
The system approach will be effective only by ensuring good governance
Systems need to be established where there are none and established systems needs to be strengthened
How can you prepare the systems actors for ongoing endeavors, ongoing research, and ongoing collaboration up and down the system? Need to address sustainability -- not just technical.
Mental health was once one of the most neglected health issues globally, but it is now increasingly concerns. It is crucial to ensure that all aspects of health issues are considered.
How can we provide more specific guidance to initiatives intended to build research and evaluation capacity on how to operationalize a systems approach?
This is important. Will be helpful to examine what this looks like for building individual capacity versus organizational capacity.
Donors and Implementing agencies to consider holistic approaches in program delivery, through engagement, and involvement of all stakeholders.
There is a need to link the systems throughout individual research/evaluation efforts across various ecosystem actors.
this is a very good system. System approach to research and evaluation is the way to go. It improves transparency and mutual understanding
The systems approach is the best but will require collaboration among all stakeholders and strong organisational support
Can you provide examples of how this has been approached and examples of success?
How to ensure system approach?
Role of political leadership in shifting to systems approach and governance
Require engagement across the research ecosystem within grants from the onset

Systems approach is empowering and sensitive to the local development ecosystem.
A systematic approach helps to have a guideline starting from the project objectives.
I agree this is important. A related point to consider is how to connect this with the concept of learning health systems.
Its also about finding ways to build on local capacity - many LMICs with PhDs come immediately back and need to be taken up to post-doc/higher level. Pay scales are a problem
Data should be the guiding principle in decision making, and all stakeholders should be fully involved in the process, with different approaches on how the data is presented.
We've known this for a while. Aligning priorities within the different systems and harmonizing efforts will be key to achievement for this process
Trainings have to be designed to prepare participants to implement what they ,learn into their practices. Content tends to be provided but the how to translate to action.
This requires a long-term approach which is challenging with many funding cycles and approaches. Donors need to do better.
Le renforcement des compétences des acteurs doit être systématique et en fonction des changements qui interviennent dans le processus de recherche Translation: *Stakeholder skills must be strengthened systematically and in line with changes in the research process.*
Strong Governance and Supportive Environment
Donors need to support this explicitly! Through their own engagement as well as how they develop their grants.
It should be considered that not all governance structures are solid therefore the challenge is to promote sustainability from the beginning of the project in the existing environment,
HIC organizations need to respect local governance structures. By using them they can help build them out.
Engagements with relevant government institutions to mind-shift towards holistic governance than just having IRBs. Asking the question, IRB for what?
Require engaging with government structures within grants - so as to respect and utilize local systems and also help build out governance for research
Unclear to me - strong governance as a prerequisite to sustainability of what? Hard to comment as this concept isnt clear.
Strong governance cannot be over emphasized as every country has one governance system or the other. Policies that seek to support research are much needed
Strong governance is a must; perhaps harmonizing the hand-over strategies during exit /endline for short-term health investors to ensure local empowerment and ownership.
Submit all research into the local IRB/ethics review boards

build research and evidence building into national strategic plans
Donors can require co-funding and use of existing environment/governance structures for grants
Let's not forget business process improvement. This would encourage governance structure and create a supportive environment for sustainability.
Business process improvement with government in order to improve usability and improve data use for decision making.
Localization and Locally Led Development
We held a conference with this theme on RH in kanya, The critical issue is to have policies with local ownership, resources to implement them& Co-creation of project
What does localization mean in the context of research and evaluation. How can we ensure that these efforts are really led by priorities of local actors; not top down
definitions of localization remain unclear both from USAID and from other funders. These are evolving.
The standards and priorities of researchers from international institutions are often misaligned with local expectations and priorities.
Necessary for health leaders in LMICS to have access to existing evidence, scientific journals, and the ability to contribute to them.
How can you normalize open conversation and feedback that occurs before the MOU is signed?
Definition needed! How do we balance with the reality that research is a high-level skill set that not everyone has. Quality vs localization tension often experienced.
Consider also skills needed for evidence translation (not just conducting research)
Capacity building for local Partner on USAID Reg & Régulations, in localization and local led Development
Prioritization of challenges are best suited for localization versus those that could benefit from "outside-in" TA is can tone down on familiarity-to-corruption tendency.
Great suggestion, but how does this actually get done in reality. Some version of this concept has been proposed in all aspects of development but remains challenging.
Our local partners are contextual experts, which are needed in everything from design to interpretation of the findings. Must tapped into this in every phase.
USAID needs to figure out localization internally including how to improve their processes to make it easier and worthwhile for local organizations to pursue prime roles
linking public health institutions with international research groups for long term capacity building including building laboratory capacity and field sites (e.g HaSNET Ethiopia)
When developing workplans, add in time/funding to address capacity gaps. Invest in those local researchers.
Important to make sure that "local" isn't the country-based arm of a larger, more global organization.

Localization also needs to incorporate lived experience with the issue being investigated.
Funding
Approach funding from early phases of budget making and critically analyze budgets because some have funding but is it not consolidated into one vote
This is critical-- especially in linkages between resources and localization. Prioritizing $$ for research/eval but linking these to local priorities/local partner led efforts
Interesting to explore how funding is prioritized for research and evaluation. These efforts for whom? Programmatic impact for benefit of local/national efforts
Prévoir un budget au niveau local pour le financement des activités de recherche Translation: *Provide a local budget to finance research activities*
Everyone wants "research" but even within programs donors arent clear on expectations for how funding should be split between implementation and research
Given funding limitations, what skills/credentials should be prioritized for different cadres of health researchers and program staff?
Funders should also provide opportunities for local researchers to use their new research capacities / newly learned skills
This is a huge problem. Showing "impact" can be difficult. In addition, this type of work can have a long runway making usual length of project funding a challenge
Long term funding to build research capacity. Often funding is short term and doesn't also include opportunities to support development of research agendas.
USAID increasingly wants you building local capacity while conducting research but additional resources (time, $ etc.) are needed for this to be doable
Agree. Building local research capacity is challenging to achieve during a short period of research implementation. This warrants its own funding and longer terms.
Funding limitation is also about timing - a) cb/localization is TIME consuming/ donor deadlines don't shift; b) IR often needs to be completed once a donor project ends (endline; sustainability
These limitations lead to poorly funded research, conducting research that is only "light touch" and doesn't provide robust evidence, and a lack of appreciation for rigor
Expectations of donors sometimes are not among local-level researchers due to communication gaps. The unsuccess rate of funding applications discourages local-level researchers
Donors need to prioritize funding for research. This aspect of programming often gets ignored.
The funds are always limited, and so much so should be optimized, and this we get it in not leave the most funds at the central level with the payment of the payroll of employees, i
Funding for public sector institutions received less priority among the funders. In that case, how is possible to

enhance the research capacity of the local level researcher?
Research funding has forever been limited but prudence is need in identifying talent, passion and commitment to "follow-the-science" creatively and gain respect.....
Career Development
Support projects that embed this training in curricula
The WHO HRP Alliance does this for young female researchers in SRH in developing countries. Might be good to get some lessons learned
In Ethiopia HaSET is a research organization where Harvard T.H. Chan School of Public Health, Boston Children's Hospital, St. Paul's Hospital Millennium Medical College, and the Ethiopian Public Health Institute work together; they have a research site with laboratory facilities. It seems a good example of building long term research expertise.
Critical to ensure that researchers from LMICs have opportunities to advance their research skills and contribute their work to a global evidence base!
research training should be built into medical and nursing school and mid-level provider pre-service curricula and training to set the stage for them to evaluate literature
Career development should include science communication and technical writing.
building capacity to dev and test theory through research
In aging and aged societies with lower younger generations, the distribution of the workforce is very important. It is essential to ensure that the workforce is appropriately allocated according to the specific needs of the settings.
There should be more systematic recognition of contributors to M&E for past projects, so skill building can be both targeted and recognized as applicable experience
Funders often select or provide scholarship only to the private sector partners rather than public sectors
Did literature review bring up the vast differences in educational systems-- western edu emphasis on analytical thinking? Different skills prioritized in different systems?
how different educational systems focus (or not) on career trajectories/ continuous education
This has always been the vision; the issue is recognition that research is in every career path and one embraces it as a 'self-branding' growth opportunities by subduing to mentors
Metrics and Frameworks
Challenges to measurement can be the short timeframe of projects - showing improvement in capacity/performance of organizations is usually a long term outcome
There are existing ways to track organizational development that are not long-term, and aligned to USAID outcomes, particularly ability to manage programs.
USAID has the agency-wide CBLD-9 indicator to measure organizational capacity, but it is not being tracked as widely as it should be. Qualitative measures needed too.

Metrics and frameworks are important. The CBLD9 indicator USAID has is not easy to measure/apply. Also, outputs are not enough. How do we measure impact?
of course, this is a multidisciplinary area that needs more collaborative approaches on how to identify the roles and responsibilities of "traditional" cadres to team up.
Fellowships and mentorship relationships between researchers at different stages of their careers has been very successful. Institutionalizing these is a challenge
The hegemony of quantitative needs to be explored, questioned, and alternative metrics and ways of knowing entertained in the canon
Gender Considerations
Consideration should be given to gender issues, indigenous peoples, and other vulnerable populations to whom development should be directed, territorially speaking.
Community-level awareness is needed for equity in many LDCs. The involvement of men could strengthen gender equity.
Deeper contextual understanding of intersectionality and transformative potential. How deep do we go? Need to listen to externals (understanding beyond internals).
...with those groups to get their perspective, feasibility/viability of recommendations, & final results. They should be engaged throughout -- including defining the research Qs
Gender inequity in education often begins at primary school level and can be difficult to mitigate by time you are talking about research!
Lifelong and bi-directional agenda because we are born into unequal societies so all actors must be at the table to undo the gender inequalities at a pace that is absorbable.

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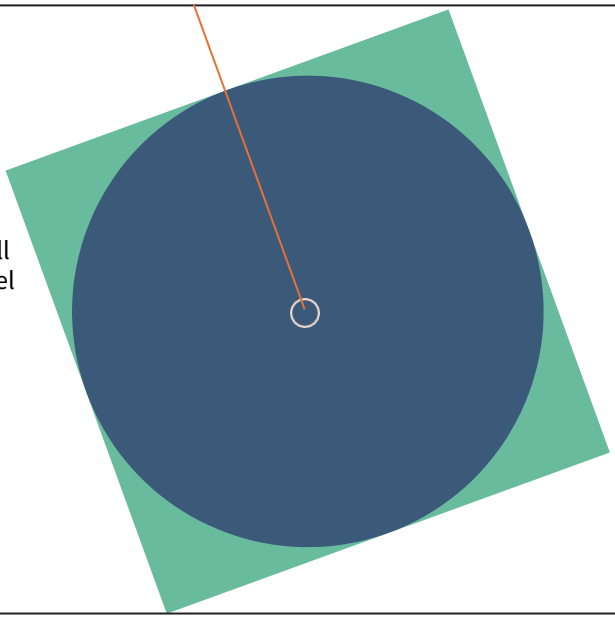

This publication was produced with the support of the United States Agency for International Development (USAID) under the terms of the Data for Impact (D4I) associate award 7200AA18LA00008, which is implemented by the Carolina Population Center at the University of North Carolina at Chapel Hill, in partnership with Palladium International, LLC; ICF Macro, Inc.; John Snow, Inc.; and Tulane University. The views expressed in this publication do not necessarily reflect the views of USAID or the United States government WP-24-267