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Conceptual framework for systemic capacity strengthening for health policy and systems research

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ABSTRACT

Health policy and systems research (HPSR) is critical in developing health systems to better meet the health needs of their populations. The highly contextualised nature of health systems point to the value of local knowledge and the need for context-embedded HPSR. Despite such need, relatively few individuals, groups or organisations carry out HPSR, particularly in low-income and middle-income countries. Greater effort is required to strengthen capacity for, and build the field of, HPSR by capturing the multilevel and nuanced representation of HPSR across contexts. No comprehensive frameworks were found that inform systemic HPSR capacity strengthening. Existing literature on capacity strengthening for health research and development tends to focus on individual-level capacity with less attention to collective, organisational and network levels. This paper proposes a comprehensive framework for systemic capacity strengthening for HPSR, uniquely drawing attention to the blurred boundaries and amplification potential for synergistic capacity strengthening efforts across the individual, organisational and network levels. Further, it identifies guiding values and principles that consciously acknowledge and manage the power dynamics inherent to capacity strengthening work. The framework was developed drawing on available literature and was peer-reviewed by the Board and Thematic Working Groups of Health Systems Global. While the framework focuses on HPSR, it may provide a useful heuristic for systemic approaches to capacity strengthening more generally; facilitate its mainstreaming within organisations and networks and help maintain a focused approach to, and structure repositories of resources on, capacity strengthening.

SUMMARY BOX

- ⇒ There is a recognised need for health policy and systems research (HPSR) in support of health systems development.
- ⇒ Substantial theoretical and empirical published knowledge covers capacity strengthening for health research and development generally, but no frameworks exist for conceptualising capacity strengthening specific to HPSR.
- ⇒ A conceptual framework is proposed of systemic capacity strengthening for HPSR, drawing on and extending the current understanding from health and non-health literature.
- ⇒ The framework underscores the importance of strengthening HPSR capacity at the organisational and network levels.
- ⇒ In addition to requiring a clear goal, and a focus on an intended audience, capacity strengthening for HPSR requires prior assessments of capacity assets and needs within and across the individual, organisational and network levels recognising the blurred boundaries and amplification potential that exists for capacity strengthening efforts at a systems level.
- ⇒ The proposed framework provides a heuristic for systemic approaches essential for unleashing capacity for both HPSR and broader health systems development.

INTRODUCTION

Health policy and systems research (HPSR) is critical in developing health systems to better meet the health needs of their populations,[1] from outbreaks of infectious diseases through to wider societal challenges such as the health impacts of climate change and urbanisation. The highly contextualised nature of health systems and services reinforces the central value of local knowledge and point to the need for context-embedded HPSR in support of health systems development. However, there still remains limited numbers of individuals, groups or organisations carrying out HPSR, particularly in low-income and middle-income countries (LMICs).[2 3] There is an evident need to invest in strengthening capacity for HPSR.[4]

A field is commonly defined as a community of individuals and organisations working together to address a common societal issue, develop shared knowledge or advance practices.[5 6] Similarly, the field of HPSR aims to understand and improve how societies organise themselves in pursuit of collective health goals.[2] However, distinctive features of the HPSR include its diverse participants

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(comprising researchers, advocates, policymakers, practitioners, educators and funders); its applied nature (spanning and bridging the worlds of research, practice and advocacy); its recognition and engagement with structural change (to comprehensively address social, economic, political, commercial determinants of health); an orientation towards the principles of social justice and its multidisciplinary perspective (drawing on diverse methodological and epistemological backgrounds). As such, strengthening, or field building, of HPSR entails a strong emphasis on enhancing collective links among individuals and organisations to ensure connectedness and boundary spanning between different communities of practice and consolidating and extending shared ideas and experiences.

There is substantial published knowledge on capacity strengthening for health-related research and development, covering four overlapping areas. First, there is published work that conceptualises different elements of 'capacity' including those that focus on individual (eg, knowledge and skills), organisational (eg, organisational governance arrangements, resource environments and management approaches) and network (eg, interorganisational relationships and network-level communication and engagements) levels.[7–9] Second, there is literature expounding underlying principles of, and effective strategies for, health-related research capacity strengthening, for instance, through promoting equitable ownership and collaboration, ensuring robust research governance structures and embedding strong support and mentorship.[10–12] Third, there is literature providing guidance on capacity assessments, with some highlighting the importance of comprehensive evaluation of available capacity 'assets' alongside capacity needs.[13–15] And a fourth area of work focuses on good practice considerations for adequate planning, monitoring and evaluation of health-related capacity strengthening, such as selection of appropriate measures for outputs and outcomes at individual, organisational or national/regional research systems levels.[16–20] Although the body of work on capacity strengthening for health-related research is growing, the predominant focus remains capacity strengthening at the individual level, for example, via training and mentorship programmes. Guidance for capacity strengthening at the collective (ie, organisation and network) levels (for example, improving organisational processes for research governance and teaching quality assurance or building network-level relationships) is more limited.[4 21] There also remains limited consideration of capacity strengthening across the individual-collective levels or discussion of how capacity strengthening at one level may impact other levels.

The HPSR literature highlights the need for capacity strengthening for HPSR[4 22 23] but tends to address selected aspects such as evidence-informed policymaking[21] or organisational strategies to build HPSR capacity.[3] Recent literature has also highlighted core competencies for training in HPSR[24] with numerous empirical experiences of capacity assessments and strengthening.[25–45] Yet, there are still no comprehensive frameworks to inform thinking about, and provide guidance on, capacity strengthening for HPSR with its distinctive 'system-wide' focus and the potential of systemic capacity strengthening that is, leveraging synergies from working across the individual-organisational-network levels to contribute to impact at large scale.

Meanwhile, capacity strengthening in global health has often been understood as a responsibility of those based in high-income countries (HICs) as part of their partnership arrangements with those based in LMICs. For example, encouraged by funders, principal investigators of international projects who are based in HICs may assume responsibility for capacity strengthening of LMIC-based collaborators, with both sides under-recognising assets in LMICs and overestimating assets in HICs. While this trend is gradually changing, such an approach highlights the need for a new approach to capacity strengthening for HPSR among all partners irrespective of their location.

In this paper, we aim to build on and extend previous conceptualisations of capacity strengthening relevant to HPSR by describing an overarching conceptual framework of capacity strengthening for HPSR. The HPSR field comprises multiple and diverse actors such as researchers, educators, advocates, practitioners, funders and policymakers.[4] We, therefore, hope that this paper will be of interest and relevance to all these groups, with multiple lessons also potentially being transferable to building other fields.

We (this article is authored by the members of the Capacity Strengthening Working Group of the Board of Directors of Health Systems Global (HSG)) conducted a rapid scan of the literature on capacity strengthening as well as conceptualisations of capacity strengthening for field building from the areas of Development Studies and Business and Administration. Key groupings of literature—for example, sources exploring underlying principles, level of conceptualisation, guidance on capacity assessment, capacity strengthening strategies and monitoring and evaluation—were applied, followed by a more targeted search for multilevel frameworks of capacity strengthening for health-related research which produced no results. We then developed an initial framework iteratively, drawing on relevant literature, the results of a capacity assessment survey conducted with HSG members[46] and the authors' individual and collective experiences of leading and contributing to, multiple capacity strengthening initiatives and programmes. The framework was subsequently peer-reviewed by the members of the HSG Board and by leaders of HSG's Thematic Working Groups.

CONCEPTUAL FRAMEWORK FOR CAPACITY STRENGTHENING FOR HPSR

In contrast to some of the health-related literature on capacity strengthening, there is a general consensus in the wider literature that the notion of capacity comprises

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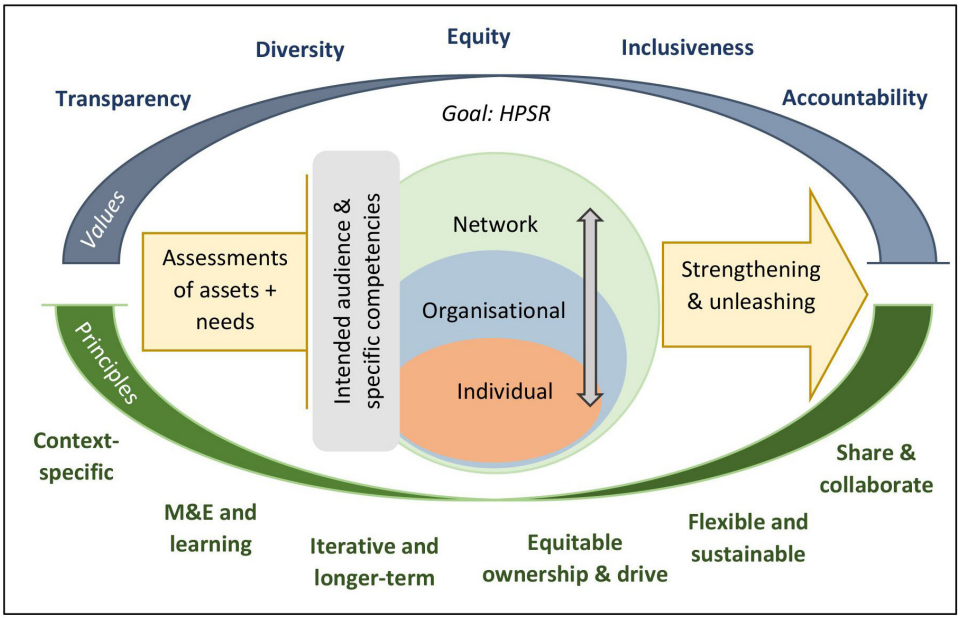

Figure 1 Conceptual framework for systemic capacity strengthening for HPSR. HPSR, health policy and systems research.

both individual and collective aspects. Collectives can comprise families and communities,[47 48] organisations and networks. From the perspective of social development, capacity strengthening for families and communities relates to strengthening their social capacity,[49] which requires deeper understanding of their often diverging identities and similar values.[47] Organisational development scholars have emphasised the importance of organisational-level capacity strengthening, while also highlighting the importance of intangible and invisible elements of organisational capacity (such as values and culture).[50]

The proposed conceptual framework of capacity strengthening for HPSR (figure 1) synthesises these characteristics with insights from the health-related literature on capacity strengthening.[7 8 26] We define capacity for HPSR as the collective ability of individuals, groups and networks, to successfully consolidate, synthesise, harness and apply opportunities in the pursuit of shared goal of advancing, promoting and integrating HPSR for health systems development. Given the distinctive applied, cross-disciplinary and multiactor nature of HPSR, central aspects of capacity strengthening for HPSR involve bridging the worlds of research, practice and advocacy with strong emphasis on strengthening collective links among individuals and organisations.

Our framework echoes the current distinction between individual, organisational and network capacity levels.

1. *Individual* capacity comprises individual expertise (knowledge and skills) to undertake defined tasks. Examples of such expertise include thematic and methodological expertise of researchers, educators' expertise in appropriate teaching methods, policymakers and advocates' knowledge and ability to act in or influence policy processes, and effective leadership of all these actors.
2. *Organisational* capacity requires both the individual expertise of its members, together with organisational-level attributes (eg, systems, processes) that can enable, or constrain, application of capacity at scale through harnessing the potential of collectives within organisations. Examples of such organisational-level attributes include a supportive culture and appropriate communication of development opportunities which can promote equitable staff development, and robust governance arrangements to ensure quality assurance (eg, for teaching, research, policymaking and advocacy).
3. *Network* capacity requires combinations of individual and organisational expertise of members of the network, with further network-level attributes. Examples of network-level attributes include the existence of shared goals, decision structures and processes, access to resources and communication arrangements.

These three capacity levels are central to our framework, but four additional points are important to note for HPSR, especially given its diverse, cross-disciplinary and multifaceted membership. First, while all three capacity levels have distinct attributes, they are interrelated. For example, individual educational skills can support educational programmes run by organisations or, conversely, large networks might use their convening power to contribute to improvements in organisational and individual-level expertise. Second, the boundaries between the three levels can be blurred and are context-specific. For example, autonomous departments within a large decentralised organisation (university, non-governmental organisation or government) could be regarded as separate organisations within a wider 'network', rather than simply units of a more centralised organisation. Third, the role of power,[51] operating within and between levels, both prior to and during capacity

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strengthening endeavours, must be recognised. The significance of understanding and consciously engaging with such power dynamics raises the need to clarify and/or establish *values* and *principles* to shape capacity strengthening work, as discussed further below. Last, while capacity strengthening work does not always have to target all three levels concurrently, the framework implies that HPSR field building would be well served by deepening work across all three levels over time. A key contribution of this framework is thus to highlight a systemic approach to capacity strengthening, which recognises and leverages synergies across the three levels to achieve effects at large scale.

The understanding of capacity strengthening for HPSR described above draws on, and is aligned with, recent conceptualisation of Learning Health Systems,[52 53] a term used to describe infrastructure, processes and activity that drive systematic translation of research evidence and other forms of knowledge into health practice and policy. Sheikh and Abimbola[53] conceptualise such systems as operating across three dimensions, all of which inform our framework. The first dimension—individual, group, organisation and cross-organisation levels of learning—align with our framework's proposition of the need for capacity strengthening throughout all these levels. Our frameworks' emphasis on the blurred boundaries and amplification potential that exists for capacity strengthening efforts across levels also aligns with Sheikh and Abimbola's second and third dimensions for Learning Health Systems that view different means of learning (information-deliberation-action) and 'learning loops' as being fundamental to progressively more meaningful and sustained shifts in policy or practice.[53]

Capacity strengthening work needs to have a clear goal, though it may differ between the fields and disciplines. The overall capacity strengthening goal in the framework presented in this article is to contribute to advancing HPSR (which in addition to research also includes education, advocacy and policy influence) through actions that enhance individual skills and expertise, improve organisational systems and processes and promote network relationships. The goal of capacity strengthening and its operationalisation into specific contributions to HPSR will reflect the members' location in the field and their organisational base. Within a civil society organisation, a goal for capacity strengthening for HPSR might comprise efforts to inform effective advocacy and lobbying.[47 48 50 54] Within a government organisation, it might entail strengthening capacity to integrate, and conduct, research to support successful development and implementation of a health programme, or enabling evidence-informed policymaking.[27 35] Within a university, the goal for HPSR may focus on ensuring effective undergraduate and postgraduate teaching[24 30 55] for successful conduct of research or around particular methods such as evidence syntheses.[56–59] However, a common goal for HPSR includes promoting close engagements and synergies across all these actor groups.

Identifying and articulating the underlying values and principles is an important part of any capacity strengthening activities, since these frame and structure approaches and strategies chosen. For example, values of equity and inclusiveness combined with principles of equitable ownership and collaboration can usefully frame capacity strengthening around the available in-house assets and thus ensure longer-term sustainability of capacity gains. Such values and principles also flag the importance of critical reflexivity in any capacity strengthening endeavour, including acknowledgement of the way power (eg, along epistemic or material dimensions) is distributed among and between collaborators, and consideration of what capacity strengthening strategies mitigate rather than exacerbate any power differentials.[51 60] Some of these values and principles may naturally reflect the organisational or network-level missions, but there may also be implicit or explicit capacity-specific values and principles. For example, the capacity strengthening work conducted by Health Systems Global (HSG) is informed by five core values (further details are on p.12 of the HSG Strategic Plan https://healthsystemsglobal.org/wp-content/uploads/2020/05/HSG_StratReport_2016_2020-2.pdf) that reflect the society's ethos. HSG's principles, meanwhile, are drawn from the seven ESSENCE principles for strengthening research capacity: networking and sharing, context-specificity, local ownership, continuous monitoring and evaluation, robust governance and effective leadership, effective support and mentorship, and thinking long-term.[10] In the proposed framework, the values and principles have been adapted with consideration for the diverse backgrounds and professional roles of individuals involved in HPSR, and central focus on context-specificity and equitable ownership at all levels.

It is important for all capacity strengthening work to specify its intended 'audiences' with clearly identified capacity competencies.[14 17 24 26] An intended audience does not necessarily need to be narrow, however. The intended audience for capacity strengthening for HPSR is a diverse membership, comprising researchers, educators, advocates, practitioners and policymakers – all nested within their academic, government and civil society organisations and embedded within further respective networks. Each audience requires competencies across the individual-organisational-network spectrum. While many competencies can be common across actor groups (such as effective leadership and organisational governance), some actors also have distinct capacity competence needs. For example, HPSR educators require individual teaching expertise applied within robust organisational teaching quality assurance processes and access to resources (eg, thematic expertise and external examiners) within their networks.[24 30] Policymakers within ministries of health, on the other hand, may require specific expertise for evidence-informed policymaking,[27] for example, through commissioning, interpretation and utilisation of research evidence to inform their decision-making.[35 61]

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Table 1 Key components and their relevance to the HPSR

Element	Description	Sample activities: linked to HSG activities	Application example: HSG/AHPSR women's mentorship for publication
Goal	Ultimate ambition being aimed for	Strengthening of health policy and systems research	Support earlier career women in their track record of publications
Individual capacity	Individual skills and expertise	Methodological skills, evidence-informed decision-making, advocacy, networking	Publication skills development
Organisational capacity	Organisational systems and processes	Quality assurance for educational programmes, advocacy of member organisations	This is limited, with a clear potential to embed within organisational context (eg, within workplans and workloads, and staff support and line management) in the future
Network capacity	Collective network capacity	Collective capacity of thematic working groups, regional expansion	Establishing community of practice involving mentors and mentees
Values	Core beliefs which shape behaviour and subsequent practices	Transparency, diversity, equity, inclusiveness and accountability	Diversity, inclusion, transparency, equity, accountability
Principles	Key approaches and strategies which inform implementation	Context-specificity, equitable ownership and drive, flexibility and sustainability	Context-specificity, equitable ownership, flexibility
Intended audiences	Main beneficiaries from capacity strengthening	Researchers, policymakers, advocates, educators	Earlier career female researchers
Key competencies	Specific capacity attributes across individual, organisational and network levels	Conducting rigorous research, effective communication, agenda-setting, robust governance, equitable partnerships	Planning and writing manuscript for publication in a peer-reviewed academic journal
Assessments of assets and needs	Evaluation of available capacity strengths and needs	Capacity survey and on-going consultations	Mentees: availability of research material, willingness and commitment to participate Mentors: availability and competence, matched research interests and In addition to individual level, future assessments can usefully capture organisational level indicators
Strengthening and unleashing	Process of synergistic capacity strengthening across three levels, which includes recognition and leveraging of available assets	Webinars, skills-building and networking across audiences at global symposia and TWGs, resource repositories, developing shared understandings	Initial induction, followed by regular virtual meetings and reviews of drafts and a face-to-face event involving at Global Symposium for Health Systems Research

AHPSR, Alliance for Health Policy and Systems Research ; HPSR, health policy and systems research; TWG, Thematic Working Group.

Last but not least, the process of capacity strengthening should start with comprehensive assessments of capacity assets (ie, strengths) and needs (ie, gaps), which should inform planning of capacity strengthening.[14 15 17 26] This is because capacity assets may exist but can be constrained by unfavourable environments or simply not be recognised and used at all. For example, in organisations, individual strategic thinking expertise may be constrained by a high volume of routine tasks, limited resources to operationalise strategies or inappropriate distribution of responsibilities. At an organisational level, capacity strengthening may therefore entail unleashing an otherwise constrained capacity,[8 62] such as through managing workloads and job profiles to enable more effective use of individual and collective expertise.

The key elements of the proposed conceptual framework, together with sample activities and an illustration of how the framework can be applied in practice, are summarised in table 1. These ideas draw from HSG's own capacity strengthening initiatives, including women's mentorship for publication programme organised jointly with the Alliance for Health Policy and Systems Research.

As any other framework, our conceptualisation of capacity strengthening simplifies complex realities. Although our framework is presented here as a 'point in time' assessment, in fact, in any setting, capacity strengthening embraces multiple activities implemented over time. In an ideal scenario, new activities are preceded and built on those that came before and influence those that come after. However, capacity strengthening activities often do not function this way. Instead, other similar, and often fragmented, initiatives cover same individuals and organisations. Our conceptual framework encourages building on previous capacity strengthening activities through revealing capacity assets alongside the capacity needs. Recognising and harmonising the multitude of efforts is needed to avoid duplication, support efficient use of resources for capacity strengthening within and across settings and advance the field of HPSR.

CONCLUSION

The primary purpose of the conceptual framework is to articulate a systemic, that is, more holistic and synergistic, approach to capacity strengthening for HPSR. The

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proposed framework can be used and tested in different settings and circumstances, to contribute to its further refinement and operationalisation. The framework can also shape wider debates about comprehensive capacity strengthening and contribute to strengthening of other health-related research fields. The conceptualisation of capacity strengthening as comprising three levels and being informed by well-thought-out assessments of capacity assets and needs, can provide an overall heuristic for designing systemic approaches to capacity strengthening with a potential beyond HPSR. A clear articulation of values and principles for capacity strengthening can facilitate mainstreaming capacity strengthening within the organisations and networks, through aligning capacity strengthening within overall organisational missions and visions and contribute to harmonising multitude of relevant efforts. Specific emphasis on identification of intended audiences and their core competencies can help maintain a focused approach to capacity strengthening across individual, organisational and network levels.

At a practical level, we anticipate that the proposed framework will inform crowdsourcing and sharing of substantial capacity assets from LMICs and facilitating mutual exchange and learning through harnessing synergies for enhancing HSG members' individual and organisational capacities. This can contribute to 'flipping the narrative' that capacity strengthening in LMICs should be driven by the HICs and promote capacity strengthening approaches which include recognition and addressing capacity assets and needs of all partners.

Finally, different components of the framework can help structure repositories of guidance, tools and other resources on capacity strengthening, for example, Collaboration for Health Policy and Systems Analysis in Africa (https://www.hpsa-africa.org/), HSG repository of courses on HPSR (https://courses.healthsystemsglobal.org/), UK Collaborative on Development Research (https://www.ukcdr.org.uk/guidance/research-capacity-strengthening-resources-tools-and-guides/) or the Liverpool School of Tropical Medicine's Centre for Capacity Research (https://www.lstmed.ac.uk/research/centres-and-units/centre-for-capacity-research).

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