Priority setting is an essential, if often overlooked, function of national health research systems. Priority-setting processes are critical in aligning research funding with national evidence needs and in identifying the research questions necessary to fill knowledge gaps. In general, however, most low- and middle-income countries (LMICs) do not have a rational process in place to set health research priorities. Instead, the pattern of research funding is driven by the interests of research funders, who are often external rather than domestic actors. When priority-setting processes do occur, they are typically disease-driven and without a broader, more integrated systems-level perspective (e.g., determining how research might address one or more health-system building blocks)\(^1\). As a result, there is rarely consensus on national evidence needs, few national research priorities are set, and research in LMICs continues to follow the fleeting and shifting priorities of global funders.

For the proponents of health policy and systems research (HPSR) this situation is a vicious cycle. Without national priority-setting processes that identify health policy and systems research as a priority, it is extremely difficult to engage funders in this field. And without the push from funders to focus on health policy and systems research – essential to achieving the Millennium Development Goals (MDGs) and in scaling up interventions – the field remains underfunded. System-level priorities are ignored, and the demand for priority-setting processes to address system concerns remains weak.

How can this change? How can LMICs increasingly identify their own health policy and systems research priorities? How might funders start developing priority-setting processes within the LMICs they support? As importantly, how might evidence needs articulated by LMIC policy-makers start to drive global priorities? This brief:

- Discusses the fundamental concepts of priority setting exercises;
- Explores the priority-setting dynamic between the national and global levels;
- Describes priority setting exercises specific to health policy and systems research;

\(^{1}\) The health system building blocks, as defined by WHO, include: service delivery; medical products, vaccines and technologies; health workforce; financing; information system; and leadership and governance. For more, see WHO 2008. *Everybody’s Business: Strengthening Health Systems to Improve Health Outcomes: WHO’s Framework for Action*. WHO, Geneva.
Details the work of the Alliance for Health Policy and Systems Research in driving global priorities based upon the evidence needs of LMIC policy-makers through a three-step approach;

Concludes with recommendations for how researchers, LMIC policy-makers and the global community might increasingly promote, fund and convene priority-setting exercises in health policy and systems research.

2. The Priority-Setting Process: Key Concepts

A “priority” is, very simply, a fact or condition that is judged to be more important than another. In that simple definition lies the inherent challenge of creating an actual set of priorities: as all judgements are value-based, the values underpinning the selection of any priority are paramount. Different people have different values: what one person prioritizes, another might ignore. Epidemiologists tend to perceive different priorities than health economists; and so too the priorities envisioned and pursued by in-country groups (e.g. by the public and private sectors) may differ from those of LMIC governments, and in turn of global funders.

A balanced process for setting priorities can harmonize competing interests, ground value systems, encourage problem-based learning, resolve conflict, find consensus and ultimately create a set of agreed-upon priorities. Here we define a priority-setting process as a programme to generate consensus about a core set of research issues that urgently require attention in order to facilitate policy development. A priority-setting exercise, in turn, is the process as it unfolds in a specific context.

Three elements essential to the process of priority setting are:

- **stakeholders:** clearly, who is invited or consulted dictates what is discussed, with their value systems shaping the final outcome. While the definition of “stakeholder” will differ from issue to issue, COHRED (2000) indicates that in priority-setting exercises, stakeholder involvement should be multilevel (including communities, districts, and sub-national and national actors), multidimensional (featuring quantitative and qualitative scientific input) and multidisciplinary. Stakeholders could be decision-makers from different levels of the system, researchers, health service providers, the private sector, communities, parliamentarians, and potential donors. The greater the diversity, the greater the transparency and accountability, and the greater the chances that research can respond to multiple or integrated needs.

- **assessment criteria:** while there is a host of potential criteria that has been proposed and used in a priority-setting exercise, the literature prescribes setting tight boundaries on any exercise: the issue must be a high priority for at least three to five years (to allow for the proper design and execution of research); the research must be feasible (in financial, technical, socio-cultural and ethical aspects); the research should address the relative burden (in terms of morbidity and mortality) of the health system issue at hand; there must not be a definitive body of research on the issue; research capacity must exist to undertake possible research on the issue; decision-makers must be both receptive and willing to use the

---


5 OECD. 2003. “Priority setting: issues and recent trends.” Chapter 3 in Governance of public research, toward better practices. Available at: http://www.oecd.org/document/51/0,3343,en_2649_34269_15429043_1_1_1_1,00.html
Priority setting has its roots at the global level. While the 1990 report by the Commission on Health Research for Development advocated for the expansion of priority-setting exercises at the national level, there remains a strong interest in priority setting for health research at the global level. For instance, in 2008 the World Health Assembly adopted the “Global strategy and plan of action on public health, innovation and intellectual property,” which placed a priority on research needs, particularly on diseases that affect developing countries disproportionately.  

The responsible Intergovernmental Working Group (IgWG) hosted a 2008 meeting aimed at identifying and developing user-friendly methodologies for priority setting in health research, with the eventual goal of informing countries with “good practices for priority setting” and a proposed toolkit. The WHO’s draft research strategy (to be presented to the World Health Assembly in May 2010), also urges countries to engage in priority setting, and emphasizes the importance of including different stakeholder groups in the process. This research strategy also calls for the WHO’s Director General “to provide leadership in identifying global priorities for research for health”.  

While there does seem to be some consensus around the need for national-level priority setting, and the need for this to be multi-stakeholder, there is a lack of evidence and experience as to actual processes for priority setting at the national level, and the means of collating national-level priority setting processes into a global agenda for the WHO and donors. Importantly, this interaction between the national and global levels has received little attention, with no consensus on how to align national and global research agendas and priorities, nor how national priorities might increasingly influence the global. Noting the typical flow of global priorities influencing and even determining national priorities, Nuyens (2007) calls this national-global dynamic “one-sided” and calls for new approaches to “change this national-global schism to a national-global interface”.  

### 3. Priority Setting at the Global and National Levels

Priority results; and, lastly, the research should have a potential impact greater than its relative cost.  

- **target audiences**: the ultimate destination for priorities will invariably shape those priorities. All priority-setting exercises must take into account their eventual target audience – those who will potentially use or act upon findings and recommendations – as the appropriate level and comprehensiveness of these exercises depend upon who will ultimately fund the research. While there can be some argument made for the benefits of a priority-setting exercise bringing competing viewpoints and actors together to deliberate on common problems, priority-setting exercises are typically done for the fundamental purpose of guiding research investments. Some priority-setting exercises are done to satisfy one particular global funder; in many cases they are done to satisfy national research funders (particularly those that work across sectors). While some funders may indeed change their funding imperatives – i.e. what they will and will not fund – as a result of these exercises, priority-setting exercises typically discuss and consider a funder’s existing imperatives during the process. Such exercises may also consider inviting funders to participate, and may additionally spend resources on disseminating those priorities back to the funders.

---

2. For the report, see http://apps.who.int/ebwha/pdf_files/A61/A61_R21-en.pdf  
4. For the draft research strategy, see http://apps.who.int/ebwha/pdf_files/EB124/B124_R12-en.pdf  
The issue of setting global HPSR priorities rose to prominence through the WHO’s Task Force on Health Systems Research. For countries striving to achieve the Millennium Development Goals (MDGs), it declared that a host of decisions needed to be made “globally, nationally and locally regarding how to achieve the problems that need to be overcome,” with many countries facing similar questions on human resources for health, effective health care, the use of pharmaceuticals, and integrating vertical programmes (e.g. on HIV/AIDS) into health systems.

Using an analysis of health systems constraints, inputs from WHO staff and other experts, an examination of previous work on health systems research and priority setting, combined with regional consultations, saw the Task Force define twelve topic areas to inform decisions at local, national and global levels. On these twelve topic areas (concerning financial and human resources; organization and delivery of health services; governance, stewardship and knowledge management; and global influences), the Task Force suggested that the following questions be addressed: what is the problem and why is it important? what is known and what is not known? and what research is needed and how would it help?


4. Priority Setting and Health Policy and Systems Research

In terms of considering health policy and systems research in a priority-setting exercise, evidence and experience reveal two broad approaches, with variation and even hybridization in both. The first sees HPSR issues incorporated through the lens of a specific disease (e.g. in research on the scale-up of antiretroviral therapy, what are the broader systemic effects?). This tends to be more technical than interpretative, and typically driven by disease burden. Well exemplified by the Combined Approach Matrix (CAM) – whereby information is categorized according to five “economic dimensions” and four “institutional dimensions” – a disease-specific approach typically does not serve HPSR well.\(^\text{11}\) Linking health systems research to specific diseases, rather than setting priorities from the broader health systems perspective, may contribute to the fragmentation or verticalization of health research, which ultimately defeats the raison d’être of a health systems’ perspective. Additionally, a disease-specific approach tends to systematically undervalue HPSR as HPSR issues would only be seen to have benefits with respect to a specific disease.

The Child Health and Nutrition Research Initiative (CHNRI) has developed an innovative and systematic methodology for setting priorities in health research investments. As a priority-setting process, its major contribution lies in its definition of health research options (spanning the generation of knowledge to its eventual implementation) and in its incorporation of societal values and priorities. Used for the first time at a

country level in South Africa in 2006 - with ensuing use at the global level - the exercise is a hybrid of technical and interpretive approaches, and followed five steps:

1. Convening technical experts and defining the context. A Technical Working Group (TWG) of six leading child health experts convened and defined the context and parameters for the exercise.

2. Selecting research options systematically by domain of health research. The TWG asked a second group of experts (representing the seven major causes of child death within South Africa) to select research options from three domains: health policy and systems research; research on existing interventions; and research on new interventions.

3. Scoring research options by criterion. Independently, the TWG scored all research options against five criteria: likelihood that question could be answered in an ethical manner; likelihood of efficacy and effectiveness; likelihood of deliverability and affordability; maximum potential for disease burden reduction; and likely impact of equity in population.

4. Addressing stakeholder values. The TWG selected a third group - this a larger, inclusive reference group - to define the relative weights for each criterion from a South African perspective, ranking each from the most to the least important.

5. Programme budgeting, marginal analysis and advocacy. The TWG arrived at an optimal mix of fundable priorities by balancing options with their potential “value” in terms of the five criteria combined with their proposed financial cost.


The second approach for HPSR issues engages a range of stakeholders and identifies HPSR priorities by focusing on HPSR questions *separate* from any disease-specific questions. These interpretative approaches are well-suited to identifying and prioritizing cross-cutting policy and systems issues, as well as involving multiple disciplines and stakeholders. Interpretative approaches also excel at weighting the viewpoints of these different stakeholders and adjusting them according to the objectives of the exercise.

**BOX 3**

In Malaysia, a national health research priority setting process treated HPSR issues separately; as with the CHNRI example, it too adopted a “hybrid” approach to priority setting. Experts first identified eleven broad topic areas: eight corresponded to burden of disease, and three dealt with cross-cutting systemic issues. Within the disease-specific topic areas, information gaps were identified using the CAM methodology. For the cross-cutting issues, selected groups of stakeholders (mostly experts) identified gaps through literature review and national analysis.

Select stakeholders then identified priorities within each of these eleven topic areas, using agreed-upon criteria for rank ordering. A broader group of approximately 600 stakeholders than reviewed and validated these lists of priorities during a national conference in July 2006. Top-ranked priorities in HPSR were:

1. **Rationing healthcare** - cost, affordability and equity (towards improved organisation and delivery of services);
2. **Public perceptions and expectation of the health system** (towards improved quality of care);
3. **Evaluation of privatization or outsourcing** of decentralization of health services (towards improved organization and delivery of services).
While there are weaknesses to this type of interpretative priority-setting approach — including a lack of information on the weight of HPSR issues relative to disease-specific topics and potential biases from unbalanced stakeholder groups — overarching HPSR priority-setting exercises have yet to be sufficiently explored at the global level, the country level, or at a level involving both.

**5. Priority Setting: Driving Global HPSR Priorities with a Participatory Methodology**

Historically, global priority-setting processes for HPSR have relied upon relatively limited consultative processes at the international level. While the value of international consultations remains, there is now fresh momentum for building global research priorities upon LMIC-identified research priorities. Such an approach may further stimulate more routine country-level priority-setting exercises, create more multi-country research studies that yield generalizable findings, and ensure that global-level priorities do indeed match the needs of LMIC policymakers.

In 2007-08, the Alliance for Health Policy and Systems Research (the Alliance) aimed to identify priority research questions in select HPSR thematic areas based upon the evidence needs articulated by LMIC policy-makers. This innovative work explored these dynamics through three
separate priority-setting processes involving a sequence of steps that, when taken together, contributed to setting global, regional and country-based priorities on the following LMIC issues:

- the role of the non-state sector;
- health systems financing; and
- human resources for health.\(^\text{12}\)

With the goal of building upon national priority-setting processes and ensuring that LMIC policy-maker needs were reflected in the research priorities at the global level, these processes asked (building upon the questions employed by the WHO Task Force): What types of research questions might investigate these priorities? How could the interests of researchers be better aligned with high-priority questions? What specific suggestions might guide where new and existing research resources could be invested? How might an integrated priority-setting process on these issues inform and influence the funding strategies of global-level research funders and promote funding alignment with policy-maker needs?

The process followed four consecutive steps:

1. through a competitive process, the Alliance contracted four regional partners (in each of Latin America, East Africa, South-East Asia, and the Middle East/North Africa) to conduct key informant interviews and localized literature reviews (including published and ‘grey’ literature) to identify and capture the prevailing policy concerns and research priorities in LMICs for each of the above issues in each of the above regions.

2. commissioned three lead researchers to conduct a global literature review to assess the extent to which existing research on the above topics addresses the policy concerns and research priorities identified in the first step.

3. convened a consultative workshop of experts (including researchers, policy-makers from LMICs, and donor representatives) to develop a preliminary list of core research priorities that require urgent attention (particularly in facilitating policy development).

4. the lead researchers wrote up findings, recommendations, and questions (with each corresponding to an identified priority), disseminating them to key target audiences. They favoured the questions that were expressed by respondents in more than one country, increasing the generalizability to other LMICs.

\(^{12}\) For the papers produced on these issues, please see http://www.who.int/alliance-hpsrresearchsynthesis/project1/en/index.html.

![Figure 1: An Overview of the Alliance Priority-Setting Methodology](image-url)
5.1 Step One: Key Informant Interviews and Localized Literature Reviews

While precise methodologies varied across regions and across the three issues, this first step was designed to provide a preliminary “snapshot” of emerging priorities, existing and ongoing research, any previous health research priority setting exercises, and all relevant literature.

The findings were collated into four separate “regional reports”. Each generated rich information on current concerns and perceptions of the role research played in illuminating them. However, in all cases, there was a scarcity of relevant literature (grey or published); and, even in countries where priority setting had been carried out (e.g. Malaysia and Tanzania), HPSR issues were very broad and often considered alongside biomedical research. Each regional report generated a list of priority research questions.

Following the creation of these regional reports, the lead researchers extracted and categorized the principal policy concerns and research priorities. Cross-cutting concerns and priorities were identified for each issue, with strong concerns and priorities relevant to specific countries also highlighted.

5.2 Step Two: Literature Review

The primary intent of the literature reviews was to provide the current evidence base for each issue, and identify the topics on which there was already a critical mass of knowledge, which would in turn inform the eventual selection of research questions. Importantly, however, the literature reviews on each of the three issues revealed a dearth of relevant information. More than answering or providing any further research questions, the literature reviews seemed to be highly instructive in terms of isolating which topics had comparatively little written about them, despite being identified as important by key informants. This in itself was a key outcome of the process, providing further imperative to investigating the unanswered research questions.

5.3 Step Three: Consultative Workshops

As the penultimate step in the priority-setting process, three separate consultative workshops brought together key experts in each issue area, representing a diverse group of research and policy interests and expertise, and a balance of southern and northern (including funding) perspectives. Participants discussed and refined the list of priority research questions identified at the country- and regional-level in the first step, and informed by the literature in the second step; decided on the nature and weighting of selection criteria to be used in ranking the research questions; ranked the research questions; and discussed in detail the kinds of research that could best address the questions that ranked the highest.

5.4 Step Four: Write-up and Dissemination

In this final step, the lead researchers participated in a process of contextualizing, analysing and summarizing the key findings, recommendations and lessons learned. These have since been presented through a variety of channels to target audiences.

All papers are available at: http://www.who.int/alliance-hpsr/researchsynthesis/project1/en/index.html
### Top-ranked research questions

<table>
<thead>
<tr>
<th>Human resources for health</th>
<th>Health system financing</th>
<th>Non-state sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1&lt;sup&gt;st&lt;/sup&gt;</strong></td>
<td>To what extent do financial and non-financial incentives work in attracting and retaining qualified health workers to under-serviced areas?</td>
<td>How do we develop and implement universal financial protection?</td>
</tr>
<tr>
<td><strong>2&lt;sup&gt;nd&lt;/sup&gt;</strong></td>
<td>What is the impact of dual practice (i.e. practice by a single health care worker in both the public and the private sectors) and multiple employment? Are regulations on dual practice required, and if so how should they be designed and implemented?</td>
<td>What are the pros and cons of the different ways of identifying the poor?</td>
</tr>
<tr>
<td><strong>3&lt;sup&gt;rd&lt;/sup&gt;</strong></td>
<td>How can financial and non-financial incentives be used to optimize efficiency and quality of health care?</td>
<td>To what extent do health benefits reach the poor?</td>
</tr>
<tr>
<td><strong>4&lt;sup&gt;th&lt;/sup&gt;</strong></td>
<td>What is the optimal mix of financial, regulatory and non-financial policies to improve distribution and retention of health workers?</td>
<td>What are the pros and cons of implementing demand-side subsidies?</td>
</tr>
<tr>
<td><strong>5&lt;sup&gt;th&lt;/sup&gt;</strong></td>
<td>What are the extent and effects of the out-migration of health workers and what can be done to mitigate problems of out-migration?</td>
<td>What is the equity impact of SHI and how can it be improved?</td>
</tr>
</tbody>
</table>

### 6. Conclusions and Lessons Learned

How did this work – across the three themes – ultimately build upon national priority-setting processes and see policy-maker needs reflected in the research priorities identified at the global level? Where previous priority-setting processes have dealt with HPSR issues in a fairly broad or cursory manner – without reducing research issues into questions that can easily translate into the aims and objectives of actual research projects – this participatory approach yielded specific and highly relevant questions that illuminated pathways to solving core problems in LMICs in each of the three thematic areas. Each process saw the initial identification of questions refined and revised, with input at each step incorporating a new voice and perspective, from the country to the region to the literature to global expertise. With the literature providing a base of evidence – or revealing important areas of missing evidence – the process illustrated how and where new and existing research resources could best be invested. All processes concluded with a call for a stronger and deeper body of knowledge on both the issue at hand and on priority-setting processes more broadly.

Perceived strengths of the overall process include:
- replicability of the three steps due to careful documentation and description;
iterative process favoured those questions identified in
more than one country;

diverse sample of stakeholders (including policy-
makers, researchers, civil society) across four regions
and 24 LMICs;

focused primarily on the precise research needs of
LMICs (and not wider health-sector needs, as other
priority-setting processes have done);

Perceived weaknesses of the overall process include:

its resource-intensive and time-consuming nature.

This weakness could be substantially mitigated if
priority setting was a routine function at the country
level.

insufficiently standardised study methodology across
the four regions.

an over-sampling of LMIC policy-makers in the key-
informant interviews, resulting in research questions
that address current (but not necessarily future)
challenges.

Addressing this weakness – i.e. getting policy-
makers to think in a more long-term, future-oriented
fashion – may come through better question
structuring.

over-representation of middle-income countries.

the lack of qualitative research skills at the country-
level resulted in data that in some cases were poorly
recorded or analysed; it also created some bias in the
selection of stakeholders.

There is a strong need, across LMICs, to improve the
development of qualitative research skills.

Overall, this participatory methodology has made some
strong contributions to the art and practice of priority
setting. First, the process pushed the boundaries for how
priority-setting can inform both national and global health
research agendas. By capturing the context – the urgent
questions – at the country and region, then underlining
this with a scientific perspective, and finally filtering both
through an inclusive group of stakeholders able to
synthesize and highlight the key, core questions, the
process achieves a depth and a relevance that could not
be achieved in any of the steps taken alone.

Second, the process shows how national-level processes
and concerns might begin to influence the regional and
global levels. Involving LMIC policy-makers is an
absolutely crucial step in giving national priorities - and
the setting of those priorities - global weight and
significance. Their voice has been missing; their inclusion
gives this methodology the potential to balance what has
to date been a “one-sided” dynamic between the global
and national levels.

Third, the process – by dint of being resource-intensive
and time-consuming – reveals the sheer lack of clear and
coordinated structures that might allow priority setting to
indeed become a routine function of most national health
research systems. If all agree on the need for priority
setting mechanisms, why have global funders paid so little
attention to it? And additionally, in the absence of
reliable and regular structures for priority setting at the
national level, how should the global level react and
adjust?

7. Recommendations

There is a strong need for more research and knowledge
on the topic of priority-setting - at a global level, at a
LMIC level, and in the spaces between the two: how does
each affect the other? How can priorities at both levels
align? How can national processes influence the global?
Beyond this call for more research, however, we can distil
some important recommendations for moving forward.

1. appreciating the utility of system-level priority
setting. While clearly LMIC policymakers must
increasingly appreciate its utility, global funders must
increasingly see system-level priority-setting (at both the
national and global levels) as an imperative. A more
nuanced participatory priority-setting process can greatly
improve the funding, scope and utility of health policy and
systems research.
2. involving increasing numbers of LMIC policymakers. These policy-makers must continue to make their voice heard on national health research, from a push towards HPSR topics to the setting of national priorities. They are in many ways the missing piece in making priority-setting processes work. 

Researchers alone cannot determine priorities. Policymakers and other research-users can make strong contributions to a coordinated list of questions, to the research that would answer them, and to the needed resources. Participatory priority setting offers a practical means for fusing the immediacy of policy with the more long-term, synthesized and comprehensive perspective of health policy and systems research.

3. aligning research with national and even global systemic priorities. The research community has an obligation to work towards entrenching priority setting as a core, routine and applied aspect of any national health research system, moving countries into territory well beyond that shaped by global funders. While this methodology was designed to build global HPSR priorities upon the evidence needs articulated by LMIC policymakers, it could easily be adapted for use at the national level only.

4. moving beyond verticality. While disease-specific approaches to priority setting may be attractive, we must move beyond the verticality of a disease-driven research agenda. This is hugely important not only for health system development but also to other cross-cutting issues like the social determinants of health. A move from disease-specific approaches (as the main approach to priority setting) to a systems approach that views these disease-specific approaches as a specialist, niche contribution suitable to identifying certain specific types of research priorities, is long overdue.

5. moving to a systems approach. Without more and better knowledge on the core building blocks of a health system – and how they interact and affect each other – health research will not achieve its desired impact, and the MDGs, for instance, will likely remain beyond reach. HPSR priority setting has a unique role to play in illustrating and advocating a systems approach. Funders in particular need to re-orient their perspective to the systems level, and commit funding to both the structures that enable priority setting and to research that respects and supports health policy and systems research. It is hoped that this work on priority setting will complement global funding calls by providing concrete, specific suggestions as to where new and existing research resources can best be invested.

For more on systems thinking and the systems approach, please see the forthcoming Alliance Flagship Report, “Systems Thinking for Health Systems Strengthening”.


OECD. 2003. “Priority setting: issues and recent trends.” Chapter 3 in Governance of public research, toward better practices. Available at: http://www.oecd.org/document/51/0,3343,en_2649_34269_15429043_1_1_1_1,00.html


The Alliance for Health Policy and Systems Research is an international collaboration based within the World Health Organization (WHO), Geneva, aiming to promote the generation and use of health policy and systems research as a means to improve the health systems of developing countries. Specifically, the Alliance aims to:

- Stimulate the generation and synthesis of policy-relevant health systems knowledge, encompassing evidence, tools and methods;
- Promote the dissemination and use of health policy and systems knowledge to improve the performance of health systems;
- Facilitate the development of capacity for the generation, dissemination and use of health policy and systems research knowledge among researchers, policy-makers and other stakeholders.

This brief was written by Sandy Campbell (Independent Consultant). The brief was technically reviewed by Sara Bennett, Kent Ranson and Diane Wu of the Alliance for Health Policy and Systems Research.