Generating and Using HPSR in LMICs: Background Document for the World Report on HPSR

Introduction

The generation of high-quality, policy relevant research knowledge is a necessary first step in enabling evidence-informed decision making.

The further development and maturation of HPSR is contingent on having an appropriate number of researchers in a mix of disciplines as well as experts who have the ability to bring together learning across these disciplines (WHO, 2007). On the other hand, early and ongoing engagement of decision makers is critical in understanding both the needs of the health system, as well as their own incentives; information that is crucial if HPSR is to be effectively demanded and used to inform decision-making. However, as Bennett et al (2010) assert, the generation of high quality research needs more than just skilled researchers, just as its incorporation into decision-making goes beyond individual champion decision makers. It is also imperative that these individuals have the support in the form of organized and well-functioning institutions with appropriate and well aligned institutional arrangements to generate and use evidence to inform policy processes.

Recognizing both the strong inter-linkages between knowledge generation and utilization and the role of relevant institutions in these areas in enabling the evidence to policy process, we bring together here our analysis of institutional capacity to generate and to use health policy and systems research in LMICs. We do this through surveying major research institutions engaged in HPSR as well as Ministries of Health from across the world. We go on to suggest measures that could be taken by relevant stakeholders to strengthen institutions engaged in evidence to policy processes and address the gaps identified. Our work emphasizes organizational and system level arrangements for HPSR (including policies, rules and incentives) rather than an analysis of institutions' physical infrastructure and human resources as this is the focus of previous work in this area (Gonzales-Block and Mills 2003; Bennett et al, 2008; Adam et al, 2011). Second, with respect to Ministries of Health, it goes beyond issues of policymaker training and interactions with researchers to identify(the existence or lack of) organization and system level incentives for Ministries of Health to demand and use research evidence and strategies to further develop these.

Data Sources and Methods

Data for this document were obtained through two email administered surveys. The first survey, focused on knowledge generation processes, was targeted at research institutions engaged in HPSR relevant to low-and-middle-income countries (LMICs). The second survey of MOHs

aimed to understand the capacities within MOHs in LMICs to demand and use research evidence for the purposes of decision-making.

The survey on knowledge generation processes was administered between July and December 2014. An invitation email was sent to 481 research institutions These included Alliance partners, grantees as well as other institutions identified on the basis of representation at the 2012 2nd Global Symposium on Health Systems Research. Institutions conducting HPSR relevant to LMICs were included, irrespective of whether they were located in LMICs. Contacts were provided with a writable pdf file in which they were asked to fill their responses. A total of six reminder emails were sent to follow up with respondents. One hundred and ten valid responses were received, corresponding to a response rate of 23%.

The survey instrument contained questions pertaining to definitional issues around HPSR, institutional arrangements to facilitate HPSR, incentives provided to individual researchers to undertake HPSR, linkages with decision makers as well as questions around constraints facing the field and priority areas for future research. World Bank geographical regions and income groups were used to classify countries.

Thirty-nine Ministries of Health were targeted for the purpose of the second survey carried out in the first half of 2015. Care was taken to ensure that the MOHs of the largest LMICs including China, India, Indonesia, Brazil, Pakistan, Bangladesh and Nigeria were included in the sample. The survey included questions on sources of research evidence for Ministries of Health and barriers to evidence use, practices in using evidence and policy and legislative mechanisms to incentivize use of evidence. Twenty-four valid responses were received, a response rate of nearly 62%.

For both surveys, data were initially entered in Excel. Survey data were analysed using Stata 13 software to generate tables of descriptive statistics.

Findings

Survey of Research Institutions

Background: The 110 institutions were based in 56 countries. India and China with 14 and 7 institutions respectively were the countries with the highest number of institutions. Sub-Saharan Africa accounted for 25% of responses, the most for any region; on the other end institutions in the Middle East and North Africa region accounted for only 4% of the responses received.

Examining by country income groups, 15% institutions were based in low-income countries (LICs); high-income countries accounted for 23% institutions. Nearly 63% institutions were based in middle-income countries, which today represent approximately five sevenths of the global population (World Bank, 2015). Nine institutions reported that they had not conducted

any HPSR study during the five years prior to the survey and were thus not asked any further questions. All results henceforth pertain to the remaining 101 institutions.

Defining the field- In spite of the rapid growth of HPSR and the crystallization of a scientific community in this area as discussed earlier, only 35% of institutions reported that their institution had a shared definition of HPSR that was known and understood by all researchers.

Among institutions noting a shared definition, HPSR was most commonly defined in terms of research related to the six building blocks of the health system. Alternative definitions included:

'a multidisciplinary research field focusing on development & implementation of local & global health policies, system strengthening, services & promotion, & influence of key stakeholders on their outcomes' and

'an emerging trans-disciplinary global field with its own evolving standards for creating, evaluating, and utilizing knowledge, and distinguished by a particular orientation towards influencing policy and wider action to strengthen health systems.'

Unrestricted long term research funding is far from the norm, especially in LICs: A little over one-third (34%) of institutions in the sample reported receiving any unrestricted long term research funds (defined as funds not tied to an individual research project) (n=99). While 54% of HIC institutions (n=24) received some such funding, only 31% of institutions in middle-income countries (n=65) and 10% of institutions in low-income countries (n=10) received any such funding (Figure 1). In a majority (54%) of institutions, unrestricted long-term funds accounted for less than 25% of total research funding. HIC institutions received a higher proportion of their total funds from these type of funds as compared to those in low and middle income countries.

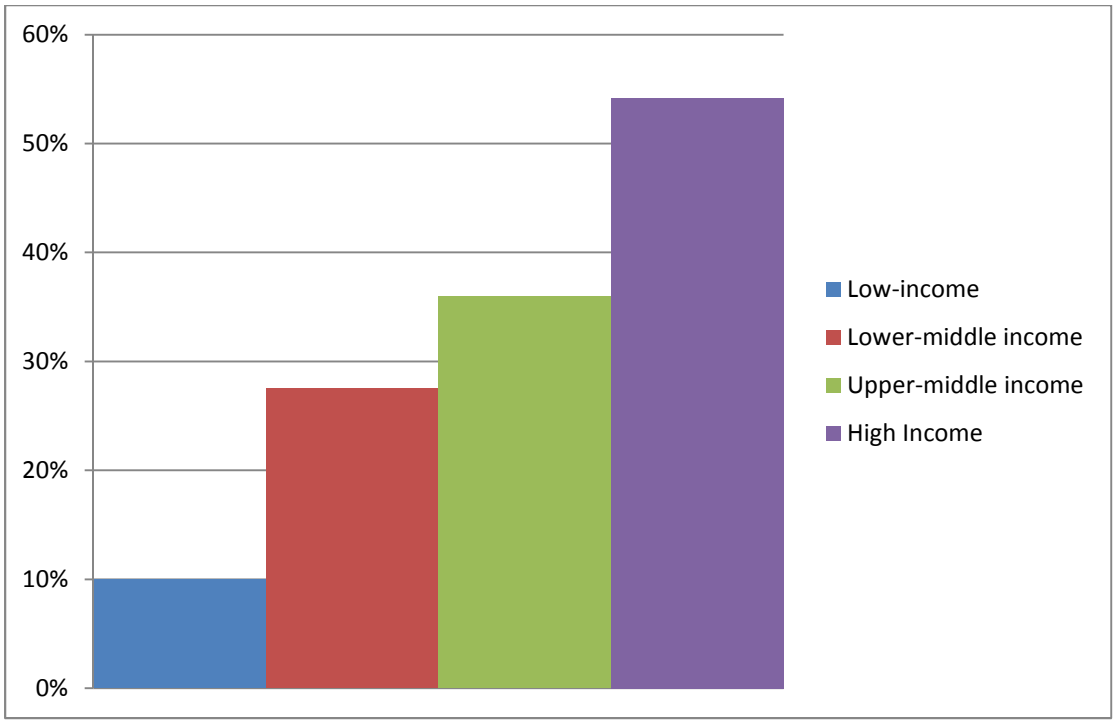
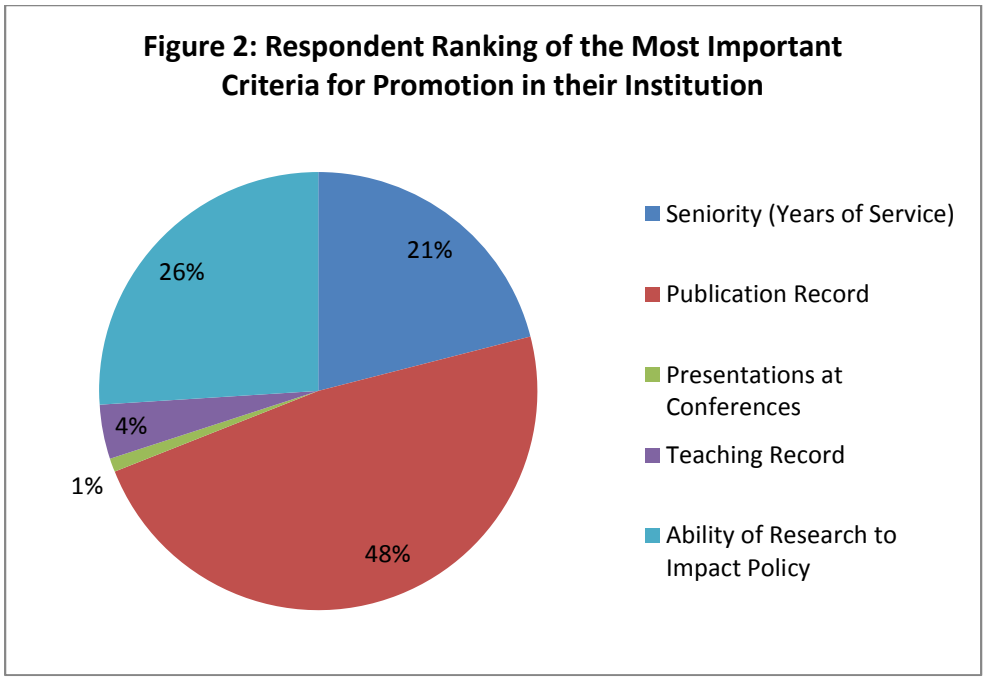


Figure 1: Proportion of institutions receiving any unrestricted long term research funds (by country income group, n=99)

Academic incentive structures for HPSR remain underdeveloped: The further development of the HPSR research community is contingent on attracting young researchers to commit themselves to the field. This is particularly challenging as the products of HPSR are not always suitable for publication in high-impact journals (Bennett et al, 2010; World Health Organization, 2012). Alternative incentive structures are thus needed for HPSR researchers. Knowledge of academic incentive structures and mechanisms currently in place is a first step to developing these alternative incentives.

Publication record was ranked as the most important criteria for promotion by 48% of respondents. Twenty six percent of respondents ranked the ability of research to impact policy as the single most important promotion criteria, a positive finding for an applied field like HPSR (Figure 2) (n=92).

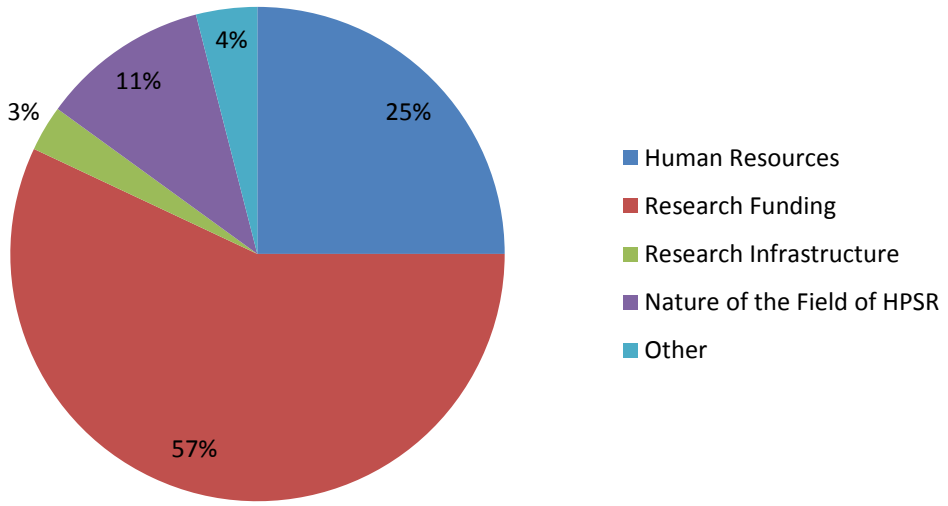


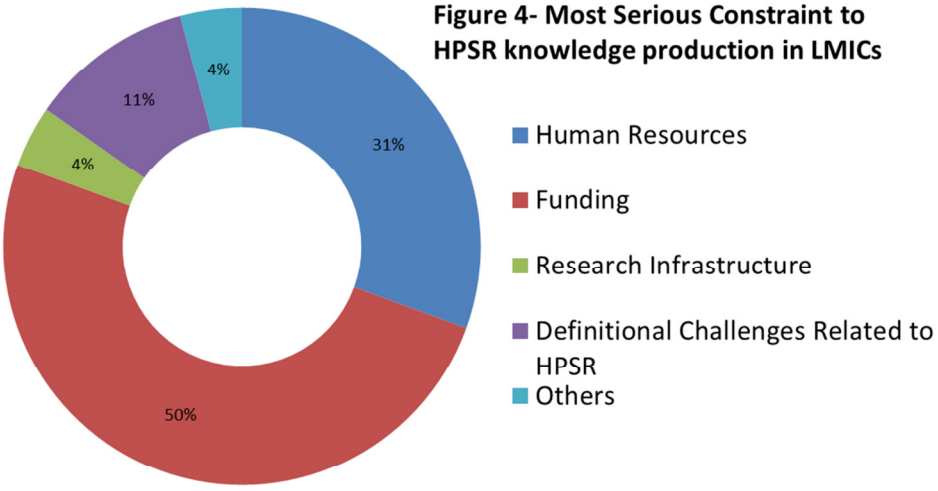
Thirty-six percent of institutions reported having put in place incentives for individuals to carry out policy relevant research. However, only two institutions reported the creation of separate career tracks for policy relevant research such as "Professor of Practice", with career advancement not as directly linked to publication in high impact journals as regular tenure track positions. Nine institutions reported that policy impact of an individual's work was considered in their promotion and eight institutions reported that they recognized policy impact through awards.

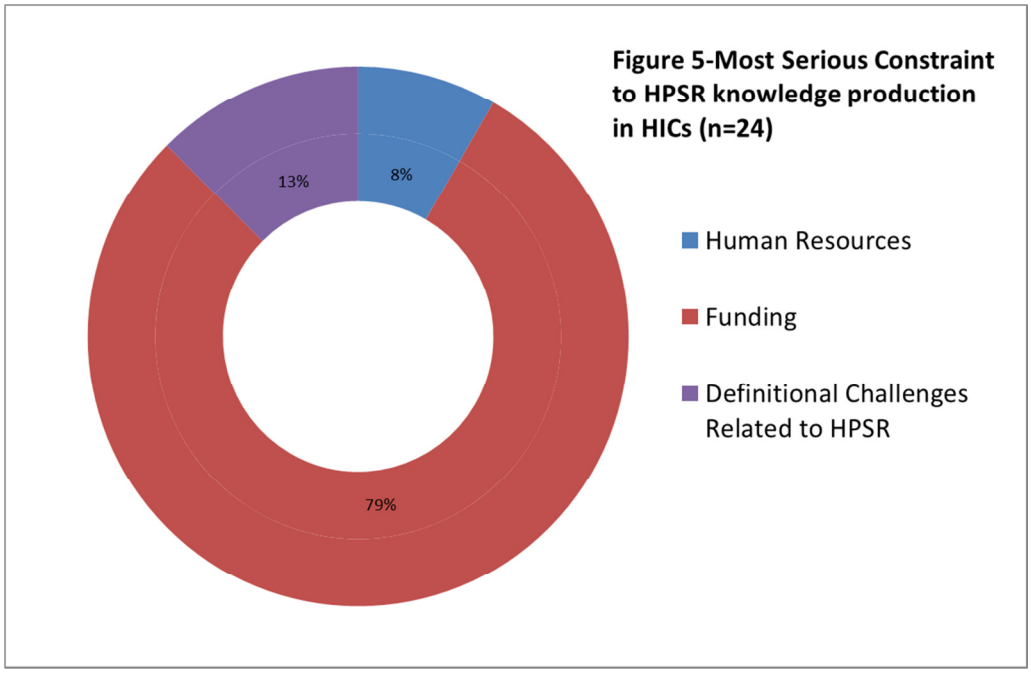
Funding and trained human resources are the most cited constraints: In spite of much progress in the development of HPSR, there are still a number of constraints that hamper its generation. Ranking these is a first step to be able to engage with relevant stakeholders to develop priorities and come up with strategies to overcome them (Figure 3).

Not surprisingly, research funding was cited as the most serious constraint facing HPSR knowledge production by 57% of respondents, followed by Human Resource constraints (25%). 11% of respondents opined that issues around the nature of HPSR (including lack of disciplinary homogeneity, definitional issues and questions of rigor), were the most serious constraints to HPSR knowledge generation respectively (Figure 3). Respondents from LMICs were far more likely to rank Human Resource constraints as the most important constraint (31%), than those from HIC institutions (13%) (Figures 4 and 5).

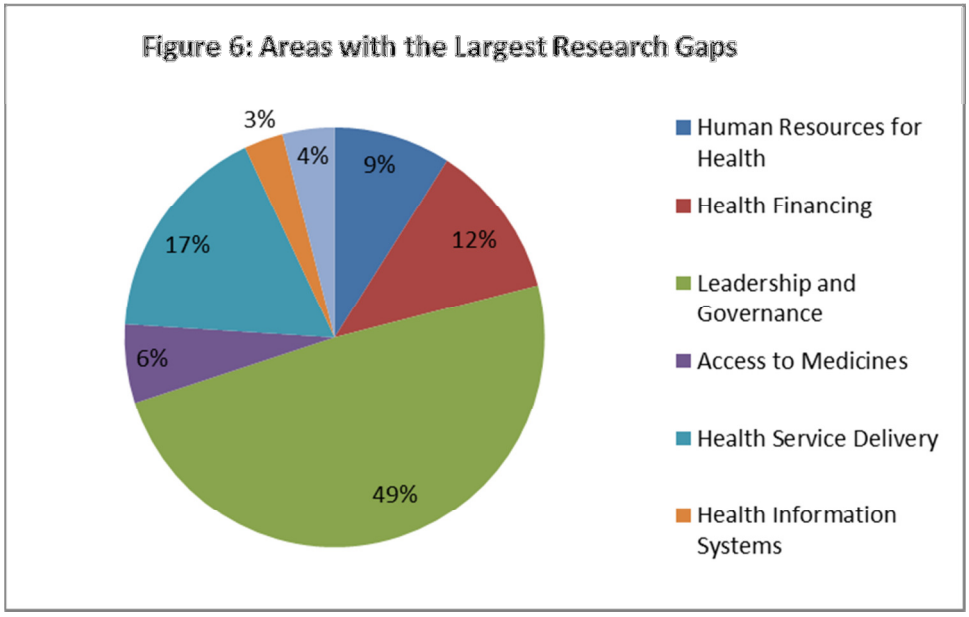
Figure 3: Single most serious constraint facing HPSR knowledge production







More research is needed on leadership and governance: Respondents were asked to identify areas within the field where they believed there were the most significant gaps in the literature and where research was most needed. Given the widespread use of WHOs six-building blocks framework to describe and understand health systems, respondents were asked to identify areas in terms of these building blocks. Leadership and governance was identified by nearly half of all respondents (49%) as the area where most research was needed; this was followed by health service delivery (17%) and health financing (12%). 3% of respondents felt that research was most needed on health information systems. There was no significant variation across country income groups (Figure 6).



Survey of Ministries of Health (MOH)

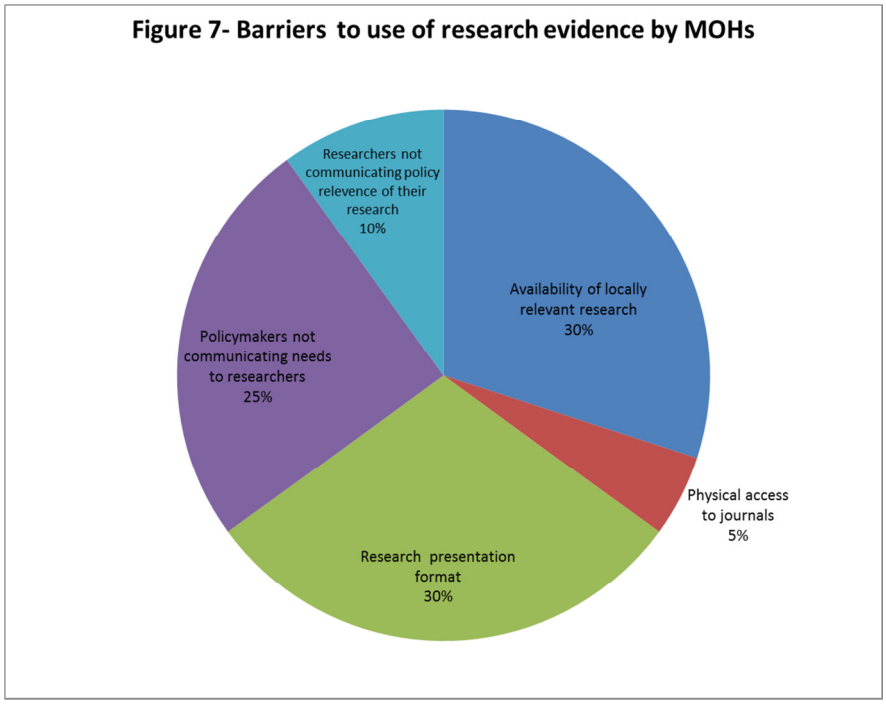
Findings

Background: To complement survey results from institutions, Ministries of Health were surveyed, providing an understanding of the mechanisms in place that influence how evidence is or is not used. Table 1 provides the list of countries responding to this survey (Table 1). The largest share of responses (29%) was from the East Asia and Pacific region, followed by Sub-Saharan African region (25%). Low income countries accounted for 29% of responses. Respondents were most often based either in the Office of the Director General of Health (25%) or in the Planning and Policy Unit of the MOH (25%). 62.50% of them had received a doctoral or professional degree. Females accounted for nine of the 24 respondents (37.50%).

Table 1: Regional breakdown of responses received from MOHs

Africa	6
East Asia and Pacific	7
Europe and Central Asia	3
Latin America and Caribbean	3
Middle East and North Africa	1
South Asia	4

MOHs face several barriers to obtaining relevant evidence: The two most cited barriers to getting relevant evidence were reported to be the unavailability of locally relevant applied research (30%) and poor presentation of research findings, making it difficult for policymakers to understand (30%). The next most cited reason was inadequate communication between researchers and decision-makers about policy-relevant research (25%) (Figure 7).



Making research available to staff is not prioritized: In light of the stated unavailability of locally relevant applied research, there appears to be inadequate attention to bringing together and enabling the usage of existent research evidence such as internal reports that could inform and strengthen decision making. Only a little over half (54%) of MOHs reported that they systematically collated evaluations, and other sources of unpublished data for staff to use to inform their work. Of these, a little over one third reported that they had put this collection online demonstrating the relatively low priority given to making research evidence available to MOH staff.

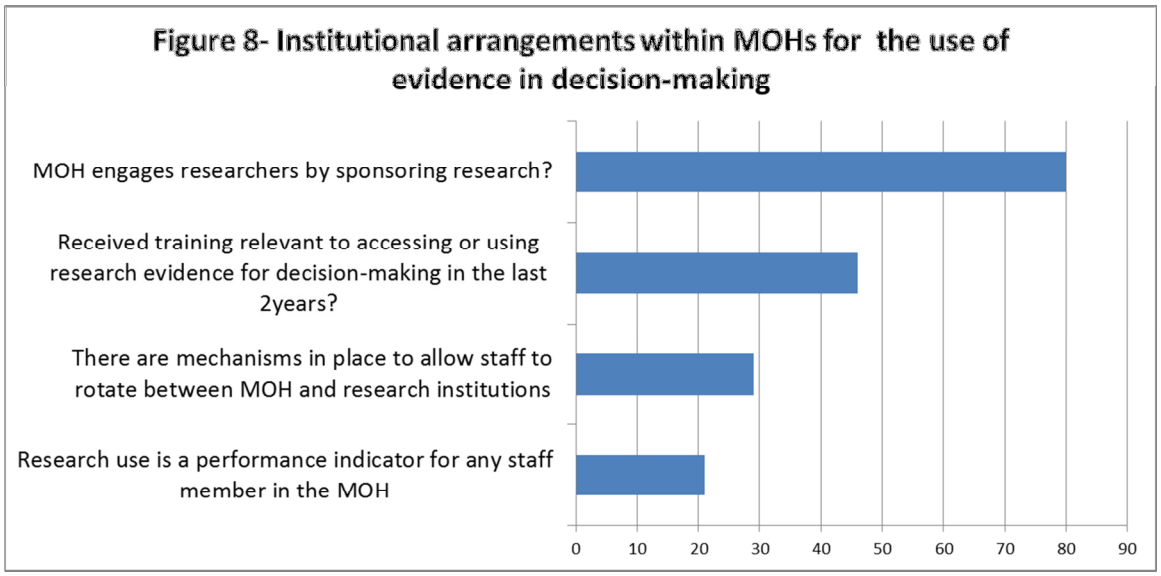
High self-reported use of research but weak mechanisms and incentives to enable this: In most MOHs (79%), respondents reported having used research evidence to directly inform a policy decision in the year leading up to the survey. The same proportion of respondents (79%) affirmed that the MOH engaged with researchers during decision-making processes and that the MOH sponsored research to inform its decision-making (Figure 8).

While there seems to be an intention to use research, there do not appear to be institutional mechanisms or incentives in place to facilitate this intention in practice. At the individual level, research use was found to serve as a performance indicator for any staff member in a little over 20% of MOHs; this includes staff in areas such as monitoring and programme evaluation (Figure 8). Additionally, less than one third (29%) of MOHs reported having in place mechanisms such as sabbaticals or secondments that would enable their staff members to gain experience at

research institutions (Figure 8). Similarly, at the level of the organization, less than half (42%) of MOHs reported having formal Memoranda of Understanding (MOUs) with research institutions when commissioning research.

Similarly, while a majority of MOHs appear to recognize the importance of research appraisal and program evaluation in informing policy decisions, the data suggest that these issues are approached in an arbitrary fashion in a majority of settings. Policies or legislative mechanisms mandating the evaluation of MOH programs were reported by over 70% of MOHs. However, there was little clarity on what qualified as an evaluation with less than a third of these Ministries reporting having in place guidelines laying down specific criteria for what constituted an acceptable evaluation of a programme.

50% of MOHs reported that they had put in place transparent and concrete procedures to appraise research evidence for the purpose of informing internal decision-making. However, this was in the form of a written order or guidelines in less than a third of these MOHs, reiterating the earlier finding of a relative lack of institutionalization of processes to appraise and use evidence in decision-making.



Training Decision-Makers to Demand and Use Evidence- a mixed picture: A little under half (11 of 23) respondents, reported having received training relevant to accessing or using research evidence in decision-making processes in the two years prior to the survey. Skills frequently imparted included those in data analysis, carrying out general internet searches and skills to access databases such as PubMed. One respondent reported receiving training in the production and dissemination of evidence briefs for policy and yet another reported that the training received had been to *"assess the quality of research evidence, (and in)... methodologies, tools and resources in using evidence in policy-making"*.

Only seven MOHs reported having in place mechanisms to enable staff rotation to research institutions. Of these secondment mechanisms were in place at three MOHs and one MOH reported allowing officials time for sabbaticals at research institutions. From the data it would appear that while research training programs for MOH officials are not uncommon, mechanisms to enable more in-depth exposure to research institutions over a longer period of time are less prevalent. This is not surprising given the shortage of skilled human resources in a large number of MOHs particularly in LMICs.

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